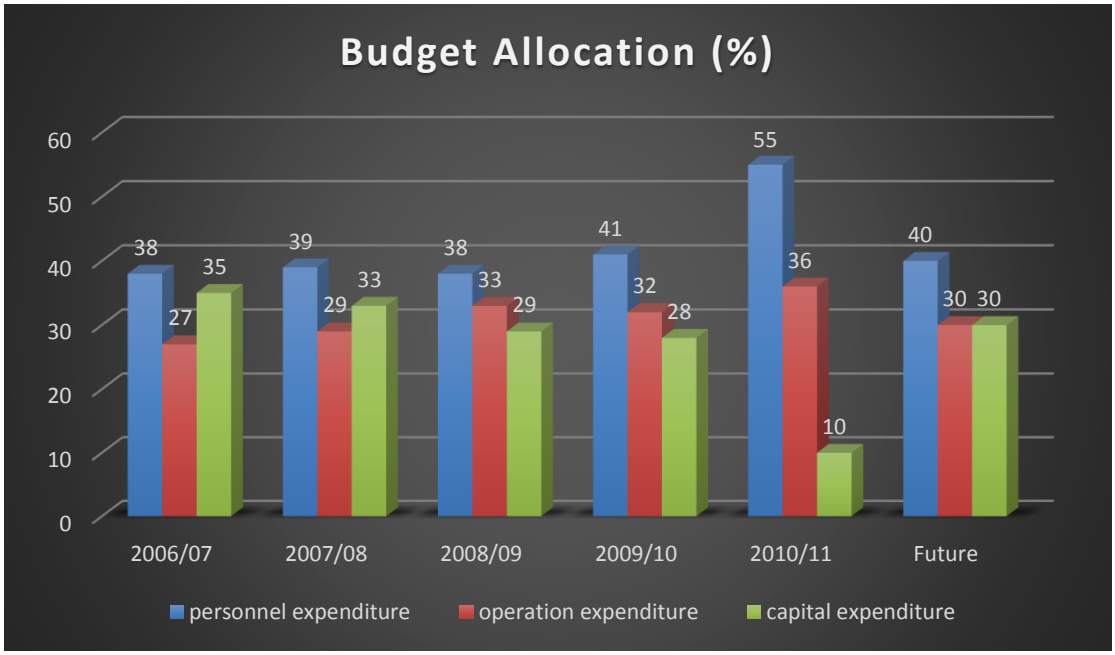
Volume 7 Number 42 – Wednesday, 21 October 2015

Part I: South Africa

Part II: Epicos Newsroom

South Africa: Future Defence Budget Allocation

The South African defence budget for financial year 2015/2016 amounts to 44.5 billion rand (approximately, USD3.8 billion), which is approximately 1.1% of the GDP. According to South African authorities the defence spending will reach 2% of GDP. Additionally, South African authorities are planning to allocate in the future 40% of total defence expenditure to personnel expenditure, 30% to operation expenditure and 30% to capital expenditure, whereas in 2010/2011 the allocation was as following: operation 36%, capital 10%, and personnel expenditure 55%.



Source: SOUTH AFRICAN DEFENCE REVIEW 2014

South Africa's defence spending has fluctuated considerably over the last three decades. In 1989, the Country ranked 13th in the world in terms of military expenditure and 44th in terms of military spending as a percentage of Gross Domestic Product (GDP). In mid-1990s, South African defence spending had been reduced to less than 3% of gross domestic product and less than 10% of total government spending. Total defence Budget was further decreased reaching 1.54% of GDP in 2004/05. Currently, the defence budget has been further diminished to 1.1% of GDP.

One of the main priorities of the country's authorities is to maintain a modern and technologically advanced force. In order to achieve this, they are planning to acquire the proper defence equipment. For air defence, the authorities have budgeted for medium and light transport aircraft, a new generation mobile communication and precision guided air force ammunition for air defence.

South Africa also plans to acquire hydrographic and offshore patrol vessels, to upgrade frigates and static communication for the navy and to replace its heavyweight torpedo capability.

The South African armed forces are trying to provide, manage, prepare and employ defence capabilities that will match the needs of the country. The above is been provided through the proper management, provision, preparedness and employment of defence capabilities that are in line with the domestic and global needs of South Africa.

Kyriazis Vasileios,
Epicos Newsletter Head Editor

South Africa: Defence Industry

According to a report published by the South African Defence Industry (SADI) the annual turnover of the South African defence industry in 2012 was R13.3 billion (approximately $994 million US dollars) compared to R10 billion (approximately 748 million US dollars) in 2008. Additionally, it is worth mentioning that the sector invested roughly R1.2 billion (approximately, $90 million US dollars) in research and development (R&D) annually and provided employment to 15.000 highly skilled personnel. In 1995, nearly 29% of the defence output of the South African defence industry was exported. In 2012 total defence exports were significantly augmented reaching 67% of the total production.

The country' defence industry has developed a strong set of core competencies in the following three main areas, (although there is also significant competence in vehicle systems, simulators, unmanned aircraft and logistics):

- **Weapon systems**: including weapons for aircraft, helicopters, ships, vehicles, artillery and infantry.
- **Communications**: areas of competence include secure communications, electronic warfare, radar and information technology.
- **Avionics for aircraft and helicopters**: many companies are involved in the design and development of avionics sub-systems for fighter aircraft and attack helicopters.

For a complete directory of the South African defence industry click here.

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: g-menexis@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
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News from our A&D Business Network

Cobham Receives $51M in Orders for F-35 Lightning II

Cobham recently received a series of orders from BAE Systems for microelectronic products totaling approximately $51M for the F-35 Lightning II platform. The work will be performed by Cobham Microelectronic Solutions, a business unit of the Cobham Advanced Electronics Solutions sector. Cobham's offering for the recent orders on the F-35 platform includes microelectronic components and integrated microelectronic assemblies for radar and electronic warfare (EW).

"These awards are the result of our leading edge technology and dedicated effort to successfully execute this program while simultaneously driving affordability," said Jill Kale, President of Cobham Advanced Electronic Solutions. "The F-35 is a critical and enduring platform for the U.S. military and other allied nations. We are proud to support F-35 customers around the world with our innovative and cost effective solutions that add to the capabilities of this revolutionary aircraft. Our industry leading filtering capability, which enables greater system sensitivity, and our solid program execution have enabled the continued success of this program."

More than 100 Cobham components are onboard every F-35 Lightning II, including microelectronic components, microwave systems, motion control solutions for the Electro-optical Targeting System (EOTS) gimbal, communications cryptography chips, pilot survival products and aerial refueling equipment.

Cobham Microelectronic Solutions was selected by Lockheed Martin for a Cockpit Demonstrator event at the San Diego facility on Aug. 25, so the hundreds of employees who work on the components can see how their hard work and dedication contributes to the capabilities of the F-35.

About Cobham Microelectronic Solutions

Exceeding our customers' exacting standards with innovative microelectronic solutions

We support the delivery of mission critical electronic warfare, missiles, communications and radar applications. Our RF microelectronic solutions boast industry leading phase noise performance and high packaging density. By delivering high capability systems with best value life cycle costs, we help our customers maintain and expand their position.

About Cobham

The most important thing we build is trust. We protect lives and livelihoods with our differentiated technology and know-how, operating with a deep insight into customer needs

and agility. Our innovative range of technologies and services solve challenging problems in harsh environments across commercial, defense and security markets, from deep space to the depths of the ocean, specializing in meeting the growing demand for data, connectivity and bandwidth.

We employ more than 12,000 people on five continents, and have customers and partners in over 100 countries, with market leading positions in: wireless, audio, video and data communications, including satellite communications; defense electronics; air-to-air refueling; aviation services; life support and mission equipment.

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For Further Information Click Here

CAE and Líder Aviação joint venture training program to expand with AW139 full-flight simulator

CAE, a world leader in aviation training, and Líder Aviação, the largest helicopter operator in Brazil, today announced the expansion of the joint venture training program between CAE and Líder with the purchase of a CAE 3000 Series full-flight simulator (FFS) replicating the AW139 aircraft. The new AW139 FFS will be jointly developed by CAE and AgustaWestland and will be qualified to Level D, the highest qualification for flight simulators by both the Federal Aviation Administration (FAA) and Agência Nacional de Aviação Civil (ANAC) of Brazil.

This latest AW139 device will further benefit from the long association formed between CAE and AgustaWestland, making training for AgustaWestland aircraft available to operators around the world. This experience includes the Rotorsim joint venture between AgustaWestland and CAE, delivering simulator services for AgustaWestland helicopters successfully since 2003. The sale of the simulator by CAE to the joint venture was included in CAE's sales press release which was issued on October 15, 2015.

The AW139 full-flight simulator will support initial and recurrent training for AW139 pilots in Brazil and throughout Latin America as well as enabling mission specific training for offshore oil and gas, search and rescue (SAR), VIP, and other operating profiles.

"This deployment will provide convenient, high quality training for the large number of AW139 operators in Latin America," said Nick Leontidis, CAE's Group President, Civil Aviation Training Solutions. "We are proud to grow our joint venture with Lider to reach our shared vision of safety in this vibrant market."

"The addition of this program is another step in our continued investment in safety'" said Eduardo Vaz, Líder Aviação CEO. "Both our pilots and professionals from other companies will have a third local platform available for an immersive, mission-specific training experience." The full-flight simulator will be based Sao Paulo and training operations will begin in the second half of 2016.

About Líder Aviação

Líder Aviação is an aviation company involved in helicopter operations, executive chartering, aircraft management, maintenance, aircraft sales as the exclusive Beechcraft and Bombardier dealer for Brazil, and ground handling services. It offers helicopter services for the oil and gas industry, as well as performing onshore operations and load transportation; as well as fuel pipe and transmission line checking services. The company provides jet and turboprop airplanes and helicopters for business chartering or air ambulance. It also offers aircraft maintenance services for private companies, government bodies, and civil and military agencies. In addition, the company provides aeronautical insurance products, business

aviation training, and maintenance services. Lider Aviação was founded in 1958 and is present all over the country.

www.lideraviacao.com.br

About CAE

CAE is a global leader in the delivery of training for the civil aviation, defence and security, and healthcare markets. We design and integrate the industry's most comprehensive training solutions, anchored by the knowledge and expertise of our 8,000 employees, our world-leading simulation technologies and a track record of service and technology innovation spanning seven decades. Our global presence is the broadest in the industry, with 160 sites and training locations in 35 countries, including our joint venture operations, and the world's largest installed base of flight simulators. Each year, we train more than 120,000 civil and defence crewmembers, as well as thousands of healthcare professionals. www.cae.com
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Epicos NewsRoom

S. Korea, Japan defence ministers meet as ties thaw

The defence ministers of South Korea and Japan held talks in Seoul on Tuesday, in a further sign that relations are beginning to emerge from an extended diplomatic deep freeze.

The meeting between South Korea's Han Min-Koo and his Japanese counterpart Gen Nakatani took place ahead of a trilateral leadership dialogue involving the two countries and China.

It was the first time a Japanese defence minister has travelled to Seoul in nearly five years.

The two men last met in Singapore in May for what was the first bilateral defence ministry dialogue in four years.

Relations have been soured by the legacy of Japan's 1910-45 colonial rule over the Korean peninsula, especially the issue of Korean "comfort women" forcibly recruited to work in Japanese wartime military brothels.

Since taking office in February 2013, South Korean President Park Geun-Hye has refused to meet Japanese Prime Minister Shinzo Abe, arguing that Tokyo has yet to properly atone for abuses during the colonial period.

Washington has been nudging its two key Asian military allies to overcome grievances over the past and focus together on containing an increasingly assertive China.

The defence meeting marked the latest in a series of steps the two sides have taken towards a tentative public rapprochement, although military cooperation was never suspended even when ties were at their lowest ebb.

Nakatani was expected to brief Han on the recent passage of new laws broadening the role of the Japanese military -- legislation that has caused some consternation in Seoul.

The contentious security bills could allow Japanese troops to engage in combat overseas for the first time since the end of World War II.

Park and Abe are scheduled to meet in the coming weeks in Seoul for a trilateral leadership dialogue also involving Chinese Premier Li Keqiang. Such three-way meetings, initiated in 2008, were held annually until 2012 when they were suspended after Seoul-Tokyo relations went into one of their regular tailspins.

During her recent visit to the United States, Park had suggested she would be open to sitting down one-on-one with Abe on the side of the trilateral summit.

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

F-16V Takes Flight

Lockheed Martin successfully completed the maiden flight of the F-16V, the latest and most advanced F-16 on the market today. The October 16 flight marks the first time an F-16 has flown with Northrop Grumman's advanced APG-83 Active Electronically Scanned Array (AESA) Scalable Agile Beam Radar (SABR), which will deliver a quantum leap in capability for the venerable F-16.

The F-16V "Viper" advanced avionics configuration also includes a new cockpit Center Pedestal Display, a modernized mission computer, a high-capacity Ethernet data bus, and several other missions systems enhancements that collectively add significant combat capabilities to address the dynamic threat environments emerging in the coming decades.

"This flight marks a historic milestone in the evolution of the F-16," said Rod McLean, vice president and general manager of Lockheed Martin's F-16/F-22 Integrated Fighter Group. "The new F-16V configuration includes numerous enhancements designed to keep the F-16 at the forefront of international security, strengthening its position as the world's foremost combat-proven 4th Generation fighter aircraft."

The F-16V, an option for both new production F-16s and F-16 upgrades, is the next generation configuration that leverages a common worldwide sustainment infrastructure and provides significant capability improvements to the world's most affordable, combat-proven multi-role fighter.

Northrop Grumman's APG-83 SABR AESA fire control radar provides 5th Generation air-to-air and air-to-ground radar capability. Northrop Grumman also provides AESA radars for the F-22 Raptor and F-35 Lightning II.

With more than 4,550 F-16s delivered to date, the F-16V is a natural step in the evolution of the world's most successful 4th Generation fighter.

For additional information, visit: www.lockheedmartin.com/f16

About Lockheed Martin

Headquartered in Bethesda, Maryland, Lockheed Martin is a global security and aerospace company that employs approximately 112,000 people worldwide and is principally engaged in the research, design, development, manufacture, integration and sustainment of advanced technology systems, products and services. The Corporation's net sales for 2014 were $45.6 billion.

Source: Epicos, Lockheed Martin

Kingdom of Saudi Arabia - Multi-Mission Surface Combatant (MMSC) Ships

The State Department has made a determination approving a possible Foreign Military Sale to the Kingdom of Saudi Arabia for Multi-Mission Surface Combatant (MMSC) Ships and associated equipment, parts and logistical support for an estimated cost of $11.25 billion. The Defense Security Cooperation Agency delivered the required certification notifying Congress of this possible sale on October 19, 2015. The Government of Saudi Arabia has requested a naval modernization program to include the sale of Multi-Mission Surface Combatant (MMSC) ships and program office support. The Multi-Mission Surface Combatant program will consist of:

- Four (4) MMSC ships (a derivative of the Freedom Variant of the U.S. Navy Littoral Combat Ship (LCS) Class) that incorporate five (5) COMBATSS-21 Combat Management Systems (four (4) installed, one (1) spare) with five (5) TRS-4D Radars (four (4) installed, one (1) spare)

- Five (5) Identification Friend or Foe (IFF) (Mode 4- and Mode 5-capable) UPX-29 (four (4) installed, one (1) spare)

- Five (5) Compact Low Frequency Active Passive Variable Depth Sonar (four (4) installed, one (1) spare)

- Eight (8) MK-41 Vertical Launch Systems (VLS) (two (2) eight-cell assemblies per ship for 16 cells per hull)

- Five-hundred thirty-two (532) tactical RIM-162 Evolved Sea Sparrow Missiles (ESSM) (one hundred twenty-eight (128) installed, twenty (20) test and training rounds, three hundred eighty-four (384) spares)

- Five (5) AN/SWG-l (V) Harpoon Ship Command Launch Control Systems (four (4) installed (one (1) per ship), one (1) spare)

- Eight (8) Harpoon Shipboard Launchers (two (2) installed four-tube assemblies per ship)

- Forty-eight (48) RGM-84 Harpoon Block II Missiles (thirty-two (32) installed, sixteen (16) test and training rounds)

- Five (5) MK-15 Mod 31 SeaRAM Close-In Weapon System (CIWS) (four (4) installed, one (1) spare)

- One-hundred eighty-eight (188) RIM 116C Block II Rolling Airframe Missiles (RAM) (forty-four (44) installed, twelve (12) test and training rounds, one hundred thirty-two (132) spares)

- Five (5) MK-75 76mm OTO Melara Gun Systems (four (4) installed, one (1) spare)

- Forty-eight (48) 50-caliber machine guns (forty (40) installed (ten (10) per ship), eight (8) spares); ordnance; and Selective Availability Anti-Spoofing Module (SAASM) Global Positioning System/Precise Positioning Service (GPS/PPS) navigation equipment

Also included in this sale in support of the MMSC are: study, design and construction of operations; support and training facilities; spare and repair parts; support and test equipment; communications equipment employing Link 16 equipment; Fire Control System/Ceros 200 Sensor and Illuminator; 20mm Narwhal Gun; Nixie AN/SLQ-25A Surface Ship Torpedo Defense System; MK-32 Surface Vessel Torpedo Tubes; WBR-2000 Electronic Support Measure and Threat Warning System; Automatic Launch of Expendables (ALEX) Chaff and Decoy-Launching System; ARC-210 Radios; Combined Enterprise Regional Information Exchange System (CENTRIXS); Automated Digital Network System; publications and technical documentation; personnel training and training equipment; U.S. Government and contractor engineering, technical and logistics support services; and other related elements of logistical and program support.

In addition, this case will provide overarching program office support for the SNEP II to include: U.S. Government and contractor engineering, technical and logistics support, and other related elements of program support to meet necessities for program execution. The estimated value of MDE is $4.3 billion. The total estimated cost is $11.25 billion.

This proposed sale will contribute to the foreign policy and national security goals of the United States by helping to improve the security of a strategic regional partner, which has been, and continues to be, an important force for political stability and economic progress in the Middle East. This acquisition will enhance the stability and maritime security in the sea areas around the Arabian Peninsula and support strategic objectives of the United States.

The proposed sale will provide Saudi Arabia with an increased ability to meet current and future maritime threats from enemy weapon systems. The Multi-Mission Surface Combatant ships will provide protection-in-depth for critical industrial infrastructure and for the sea lines of communication. Saudi Arabia will use the enhanced capability to keep pace with the rapid advances in technology and to remain a viable U.S. coalition partner in the region.

The proposed sale of this equipment and support will not alter the basic military balance in the region. The principal contractor for the Multi-Mission Surface Combatant will be Lockheed Martin Corporation of Bethesda, Maryland. There are no known offset agreements in connection with this potential sale. Implementation of this proposed sale will require the assignment of additional U.S. Government and/or contractor representatives to Saudi Arabia. There will be no adverse impact on U.S. defense readiness as a result of this proposed sale. This notice of a potential sale is required by law and does not mean the sale has been concluded.

For Further Information Please Click Here

Source: Defense Security Cooperation Agency (DSCA)

SAAB Awarded for Contributions to South Korean Protection

Defence and security company Saab received an award from the Republic of Korea Army for immaculate performance of its Arthur weapon-locating radar systems and seamless on-ground support and collaboration during border crisis with adversaries.

Republic of Korea Army has awarded special appreciation to Saab for ensuring uninterrupted support and maintenance services for Arthur weapon-locating systems during a military crisis event in conflict zone. As a service provider, Saab stood ground with the army and collaborated on site during the conflict. In its award to Saab, the Republic of Korea Army recognised the services and commitment from Saab and expressed its gratitude for the same.

South Korea has deployed Saab's Arthur weapon-locating radar system to detect incoming enemy artillery 24/7 and give residents an enhanced 90 second warning of incoming fire. The Arthur systems monitor target areas of interest across the borders. Arthur can scan 90 degrees of the northern horizon at a speed of nano seconds, and it can pinpoint an object the size of a coin from distances of up to 60 km. It has the ability to rapidly detect incoming artillery fire and can calculate the firing site and point of impact, enabling effective counterfire to take place within a few seconds.

With international borders only 56 km away from South Korea's capital Seoul, Saab's Arthur weapon-locating radar systems are active 24/7 to keep citizens safe and protected. Saab ensures an on-ground presence of support and maintenance staff for round-the-clock maintenance of the radar system and required training of operators. The local support team is futher supplemented with a resourceful back-office team in Gothenburg, Sweden, ensuring an unhindered 24/7 functioning of the surveillance systems.

"South Korea is Saab's largest purchaser of Arthur. We are honoured by the recognition awarded to our services by the Republic of Korea Army. We are committed to supporting the Republic of Korea in maintaining secure borders with future ready defence and security solutions", says Håkan Borin, Country Manager, Saab South Korea.

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Source: Epicos, SAAB

Russia, United States sign 'memorandum' on air safety over Syria

The United States and Russia have signed a memorandum of understanding that establishes measures so their pilots steer clear of each other as they conduct separate bombing campaigns in Syria, the Pentagon said Tuesday.

Pentagon press secretary Peter Cook said the document was signed earlier in the day and took immediate effect.

"There's a series of protocols in place that effectively are intended to avoid any sort of risk of a mid-air incident between our air crews and Russian air crews," Cook said.

"If they follow these protocols, we should not have the risk of engagement with Russian air crews over Syria." Moscow also reported that both countries had signed the memorandum.

The Pentagon says Russia had initially asked for "deconfliction" talks with the United States after Moscow launched its air war in Syria on September 30 in support of President Bashar al-Assad's forces. US defense officials were furious after they only got a vague "heads-up" from Moscow about an hour before Russia began its bombing campaign.

Cook said the memorandum establishes several protocols aimed at maintaining professional airmanship, as well as the use of radio frequencies and the creation of a secondary line of communication on the ground. However, he was quick to stress that the understanding did not signal broader agreement with Russia's Syria strategy.

"The MOU does not establish zones of cooperation, intelligence-sharing or any sharing of target information in Syria." he said. "We continue to believe that Russia's strategy in Syria is counter-productive and their support for the Assad regime will only make Syria's civil war worse."

The United States is leading a 60-plus member coalition targeting Islamic State jihadists in Iraq and Syria and has been carrying out frequent raids for more than a year.

Russia also claims to be targeting IS and other "terrorists," but the Pentagon says it is hitting non-IS rebels fighting forces loyal to Assad.

Earlier Tuesday, a CNN report said Russian planes had twice in the last two weeks flown very close to coalition planes -- within 500 feet in one instance.

"The Russians need to abide by these flight safety protocols that they have now agreed to because we don't want miscalculations or misunderstanding," Cook said when asked about the report.

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