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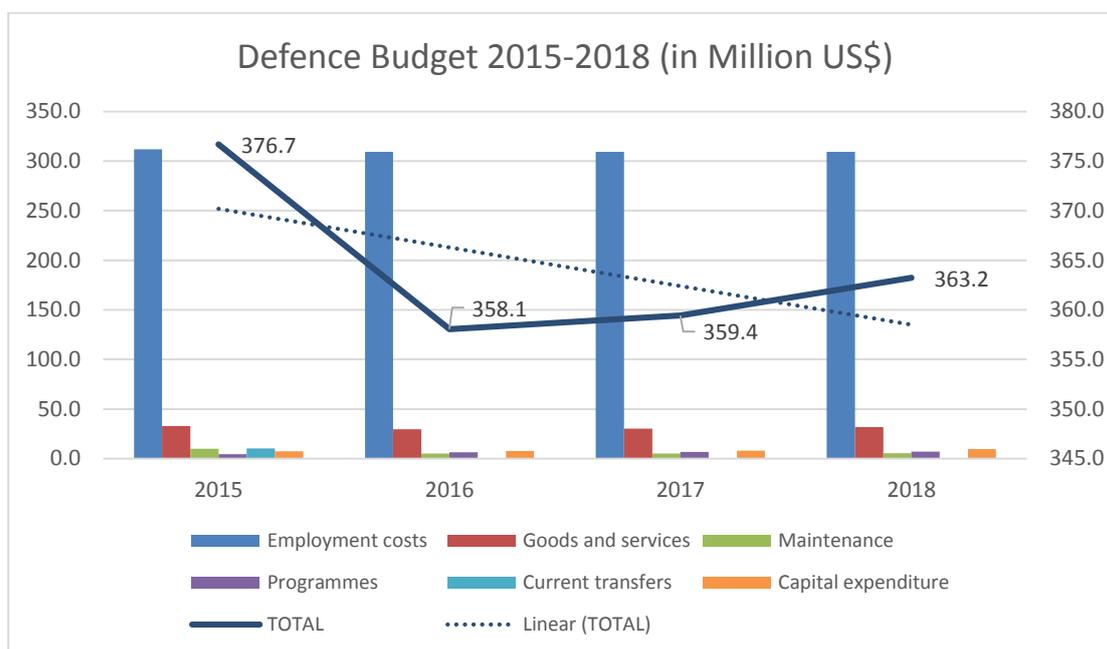
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Zimbabwe: Future Defence Budget and Imports



According to official estimations provided by the Ministry of Finance, the amount allocated in defence in 2016, will reach 358 million US\$, significantly decreased when compared to the 376 million US\$ that were allocated in 2015. The country's ambition is to maintain the defence expenditures at a level which is acceptable for the society and, parallel to this, sufficient to guarantee the security of its citizens. Therefore, for 2016 total defence budget is estimated to reach 359 million US\$, while in 2017 it will reach 363 million US\$.



Year	Employment costs	Goods and services	Maintenance	Programmes	Current transfers	Capital expenditure	TOTAL
2015	311.9	32.8	9.9	4.5	10.3	7.2	376.7
2016	309.2	29.6	5.1	6.5	0.1	7.6	358.1
2017	309.2	30.3	5.2	6.6	0.1	8.0	359.4
2018	309.2	31.9	5.5	7.0	0.1	9.5	363.2

Source: <http://www.zimtreasury.gov.zw/>

As it is clearly depicted in the chart above, employment costs (basic salaries, housing allowances etc.) captured the biggest percentage of the defence budget for the period 2015-2018, while capital expenditure (procurement of new equipment etc.) will account for 32.3 million US\$.

One of the aspects that should be taken into consideration when examining the country's defence procurements is that there is an arms' embargo in force, imposed by the United Nations (UN). In February 2002, following UN's embargo, European Union imposed a number of sanctions, including an arms embargo, with the Council's Common Position

2002/145/CFSP. On 15 February 2016, the Council adopted a decision extending EU restrictive measures until 20 February 2017.

This has altered the geographical origin of Zimbabwe's imported defence equipment. According to Stockholm International Peace Research Institute (SIPRI), during the period 1980-2000, China accounted for 35% of Zimbabwean imports, followed by the UK (26%), Brazil (11%), Italy (9%) and Spain (8%). For the period 2000-2009, China remained the largest supplier, accounting for 39% of Zimbabwean defence imports, followed by Ukraine (35%) and Libya (27%), while imports from EU drastically reduced.

An immediate result of the UN and EU sanctions, is that Zimbabwean air force is severely inhibited as local authorities were not able to purchase spare parts and equipment to refurbish several grounded aircraft and to replace parts such as radar and aerial defence systems. It is indicative that Zimbabwe has to replace the BAE's Hawk aircraft, after lack of spare parts, with Chinese K-8s.

Allocation of Budget 2015-2018 (in Million. US\$)						
Army						
	Employment costs	Goods and services	Maintenance	Current transfers	Acquisition of fixed capital assets	Total
2015	275.0	20.7	5.6	0.1	4.2	305.6
2016	272.6	19.0	3.6	0.1	4.9	300.2
2017	272.6	19.4	3.6	0.1	5.2	301.0
2018	272.6	20.5	3.8	0.1	6.1	303.2
Air Force						
	Employment costs	Goods and services	Maintenance	Current transfers	Acquisition of fixed capital assets	Total
2015	33.9	8.5	1.9	0.13	2.7	47.0
2016	34.0	7.3	1.1	0.08	2.2	44.6
2017	34.0	7.5	1.2	0.08	2.3	44.9
2018	34.0	7.9	1.2	0.10	2.8	45.8

Source: <http://www.zimtreasury.gov.zw/>

For the period 2015-2018 Zimbabwean air force is estimated to receive 2.5 million US\$ for the purchase of new equipment, while the total budget dedicated to air force will reach 182.3 million US\$. The country's army will absorb the majority of the funds (1.2 billion US\$) allocated to defence, while from this amount only 20.4 million US\$ or approximately 1.7% of the total budget will be used for the procurement of new equipment.

Kyriazis Vasileios

Epicos Newsletter Head Editor

Zimbabwe: Defence Industry Current Capabilities and R&D Efforts



As the majority of Sub-Saharan African countries, Zimbabwe does not have a defence industry in its full and proper sense. Nevertheless, the Research and Development (R&D) capabilities of the Zimbabwean armed forces are being enhanced in liaison with local industry and institutions of higher education. The aim

of the collaboration is to develop new and concrete products so as the armed forces to achieve self-reliance. Of course, a long distance has to be cover in order to fulfil the abovementioned goal.

A first step will be for Zimbabwean authorities to intensify R&D efforts and to link them with the needs of the local armed forces. In light of the current UN and EU arm's embargo, local defence industry could offer basic equipment to the armed forces that cannot currently be imported.

For several years, Zimbabwe had the capacity to produce small arms and ammunition. Zimbabwe Defence Industries (Pvt) Ltd (ZDI) was a state-owned arms manufacturing company with headquarters in Harare, with a primary focus on producing sporting and military ammunition. In 2014, the firm was bankrupted severely degrading the country's defence capabilities.

In order to further enhance the technological level of the local defence industry, Zimbabwean authorities could promote the creation of cooperative schemes with foreign partners. China has a strong presence in many economic sectors in Zimbabwe that has been deepened since the country's political isolation from the West. This cooperation is also visible in the defence sector were China provides the majority of defence equipment Zimbabwe imports. Additionally, China provided 98 million US\$ for the construction of the National Defence College. Zimbabwean authorities could build in this relationship and try to enhance their defence industrial base by acquiring technology form China.

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](#)

Provision of assembly services for components and subassemblies in the Aerospace and Defence industry



A company with significant experience in assembling parts and components for the aeronautical sector is proposing, in the frame of an offset program, the cooperation with prime or lower tier companies either locally or worldwide for the provision of assembly services for

parts and assemblies to be used in the Aerospace and Defense (A&D) industry.

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

Mail at: a-kintis@epicos.com

Production of small and medium size aluminium and steel alloys machined parts and components for the aerospace and defense industry



A company with experience in machined parts manufacturing for several aerospace programs is proposing, in the frame of an offset program, the collaboration with a Prime or lower tier company for the outsourcing/subcontracting of small and medium size aluminium and steel alloys machined parts and components manufacturing for the aerospace and defense industry.

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

Mail at: a-kintis@epicos.com

News from our A&D Business Network

Lockheed Martin and Indra Demonstrate Next Generation Radar for Spanish Navy



Indra and Lockheed Martin recently demonstrated the first phase of integration of new a solid state S-band radar system being developed for the future Spanish F-110 Frigate. The test was part of the technology development phase in the joint development of this next generation radar system.

During the demonstration, which took place at the Lockheed Martin facility in Moorestown, New Jersey, Lockheed Martin and Indra successfully completed the integration of Indra's Digital Transmit-Receive modules into Lockheed Martin's Solid State phased array antenna. Representatives from the Spanish Ministry of Defense, the Spanish Navy and the U.S. Navy watched the engineers demonstrated the mechanical, electrical and thermal compatibility of the devices. This new solid state radar will provide proven Aegis air defense capability while introducing leading edge technologies for future Spanish frigates and other international platforms.

"The demonstration showed the operational compatibility between Lockheed Martin's array and Indra's digital modules, which together will form an integral part of the F-110 combat system," said José Manuel Pérez Pujazón, executive vice president, Indra.

"We have a strong relationship with Indra, which makes them the ideal partner for this opportunity, and our systems performed flawlessly together," said Mary Keifer, director of International Aegis & Surface Combat Systems, Lockheed Martin.

The F-110 Frigate is the Spanish Navy's next generation of multi-mission surface vessel, due to see operation in the next decade. The Spanish Navy operates five Aegis-equipped Álvaro de Bazán-class (F-100) frigates, which are equipped with the Lockheed Martin-developed Aegis Combat System and SPY-1 radar. F-110 will include the introduction of an evolved Combat Management System and new solid-state S-band radar with the aim to advance the strong partnerships between U.S. and Spanish industry established during the development and fielding of the first four ships of the F-100 program and expanded for F-105.

As part of the collaboration, Indra is supplying the building block to achieve a fully Digital Antenna, including the Digital Transmit-Receive modules that contain state-of-the-art Solid State Gallium Nitride (GaN) high power amplifiers, developed from its experience in the design of radar and electronic warfare systems, integrating leading edge technologies in high power amplification and digitalization.

"Like the Aegis Combat System, our solid state radar system employs an open architecture design that more easily facilitates integration with other systems and components," Keifer said. "This allows us to help support the U.S. Navy and Missile Defense Agency's interests,

while making our systems more compatible with the needs of our allied partners through collaboration with companies like Indra, which bring strong multinational capabilities and leading edge technologies to bear.”

Following the success of the demonstration, both companies signed a contract under which Lockheed Martin will support Indra during the technology development phase of the project that will culminate in 2020 with the demonstration of a full Engineering Development Model of an integrated solid state S-band radar for the future Spanish frigate.

The demonstration was an important step in a roadmap defined by both companies in 2010 to develop a next generation radar for F-110 and future international platforms.

For more information, visit: www.lockheedmartin.com/us/products/aegis.html and www.indracompany.com/en/defense

About Lockheed Martin

Headquartered in Bethesda, Maryland, Lockheed Martin is a global security and aerospace company that employs approximately 125,000 people worldwide and is principally engaged in the research, design, development, manufacture, integration and sustainment of advanced technology systems, products and services.

Harris Corporation Awarded \$96 Million IDIQ Contract to Supply Precision Approach Radars to US Navy, Air Force and Army



Harris Corporation has received an eight-year, \$96 million ceiling, single-award IDIQ contract from the U.S. Naval Air Systems Command (NAVAIR) to supply precision approach radars (PAR) to the U.S. Navy, Air Force and Army. The contract was awarded during the fourth quarter of Harris' fiscal 2016.

Under the contract, Harris will supply high-performance PAR systems to help the three services upgrade their precision approach and military air traffic management capabilities.

"Harris military precision approach radars combine considerable technical capability with high levels of reliability and affordability," said Ed Zoiss, president, Harris Electronic Systems. "This blend of cutting-edge technology and dependable performance makes Harris the leading supplier of PAR systems to U.S. and international military customers."

Harris has produced sophisticated radar technology for more than 70 years, pioneering the development of air traffic control and 3-D air defense radars for tactical applications. Harris PAR systems are used extensively today by the U.S. military and more than 20 international allies.

About Harris Corporation

Harris Corporation is a leading technology innovator, solving our customers' toughest mission-critical challenges by providing solutions that connect, inform and protect. Harris supports customers in more than 125 countries, has approximately \$8 billion in annual revenue and 22,000 employees worldwide. The company is organized into four business segments: Communication Systems, Space and Intelligence Systems, Electronic Systems, and Critical Networks. Learn more at harris.com.

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ManTech Awarded \$44.2 Million Contract for Quick Reaction Capabilities to Support Warfighters

The U.S. Department of Defense (DoD) has awarded ManTech International Corporation a prime contract to provide operational and user maintenance (O&uM) and software maintenance support to the Product Manager (PM) Joint Personnel Identification (JPI) Quick Reaction Capabilities (QRC) Sustainment. The PM JPI is responsible for ensuring the QRC task order supports warfighter needs by sustaining adequate O&uM and software maintenance functions required on a daily basis. The QRC requirement includes both hardware (devices) and software that are used for biometrics collection, storage, matching, and analysis in a forward operating environment. The cost-plus-fixed-fee task order has a 12-month base period of performance and one 12-month option period, with a potential total value to ManTech of \$44.2 million.

"ManTech is excited to provide a responsive and innovative team to support this mission-critical program," said Daniel J. Keefe, president and chief operating officer of ManTech's Mission Solutions & Services Group.

About ManTech International Corporation

ManTech is a leading provider of innovative technologies and solutions for mission-critical national security programs for the Intelligence Community; the Departments of Defense, State, Homeland Security, Energy, Veterans Affairs, and Justice, including the Federal Bureau of Investigation; the health and space communities; and other U.S. federal government customers. We provide support to critical national security programs for approximately 50 federal agencies through approximately 1,000 current contracts. ManTech's expertise includes cyber security; command, control, communications, computers, intelligence, surveillance, and reconnaissance (C4ISR) solutions and services; information technology (IT) modernization and sustainment; intelligence/counter-intelligence solutions and support; systems engineering; healthcare analytics and IT; global logistics support; test and evaluation; and environmental, range, and sustainability services. ManTech supports major national missions, such as military readiness and wellness, terrorist threat detection, information security and border protection. Additional information on ManTech can be found at www.mantech.com.

Source: Epicos, Mantech

BAE Systems and Fujitsu Collaborate on Cyber Threat Intelligence Sharing

BAE Systems today announced a partnership with Fujitsu of Japan to implement a Cyber Threat Intelligence (CTI) sharing system. The system demonstrates the utility of sharing cyber threat information internationally — using industry standards and open source tools — as a means of improving an organization’s overall cyber defense.

CTI sharing is becoming increasingly critical to improving the effective cyber defense capabilities of organizations. Recent large-scale information thefts have prompted new legislation and policy calling for government and commercial entities to share intelligence of potential cyber threats to improve overall defense. The cyber threat intelligence sharing system developed as part of this partnership enhances the company’s ability to provide universal protection across both physical and virtual worlds, for both commercial and government customers.

“This partnership builds upon our strong working relationship with Fujitsu,” said Peder Jungck, chief technology officer of BAE Systems’ Intelligence & Security sector. “As a team, we’re producing some of the most cutting-edge solutions to manage our customers’ defense and security needs, regardless of the industry.” For this collaboration, BAE Systems leveraged its deep expertise in CTI analysis and model-based software engineering to create a threat sharing technology based on the internationally approved Structured Threat Information eXpression (STIX) and Trust Automated Exchange of Indicator Information (TAXII) standards.

The system allows for a secure, two-way exchange of CTI between BAE Systems and Fujitsu. It also provides an innovative, model-based data protection framework that enforces sharing policies to prevent private corporate data from being exchanged. BAE Systems and Fujitsu cyber analysts can now easily review shared cyber threat intelligence, modify their security settings to their respective networks, and adjust what types of cyber threat intelligence they wish to share with their partners, creating an agile CTI management framework. The work will be completed at multiple locations in Tokyo and across Northern Virginia. Retired U.S. Air Force Major General Jim Keffer, former chief of staff of CYBERCOM and president of Keffer Consulting, LLC, has joined the program as a BAE Systems subject matter expert. He brings unique and unmatched experience to the design and validation of CTI sharing.

BAE Systems provides intelligence and security services to manage big data, inform big decisions, and support big missions. BAE Systems delivers a broad range of solutions and services including intelligence analysis, cyber operations, IT, systems development, systems integration, and operations and maintenance to enable militaries and governments to recognize, manage, and defeat threats. The company takes pride in supporting critical national security missions that protect the nation and those who serve.

For Further Information [Click Here](#)

Source: Epicos, BAE Systems

Saab Unveils the First Gripen E

Defence and security company Saab will take the next step in the evolution of the Gripen fighter system on 18 May, with the unveiling of the first test aircraft of the next generation, Gripen E.

The unveiling of the first Gripen E test aircraft will take place at Saab's facilities in Linköping. Among the speakers are the Swedish Minister for Defence, Peter Hultqvist; the Swedish Air Force Chief of Staff, Mats Helgesson; Commander of the Brazilian Air Force, Nivaldo Luiz Rossato; and from Saab the Chairman of the Board, Marcus Wallenberg; the CEO, Håkan Buskhe and head of business area Aeronautics, Ulf Nilsson.

"There is huge global interest in the Gripen fighter system and we are now ready to present the first Gripen E. We look forward to sharing this important event with both guests and viewers," says Ulf Nilsson, head of Saab business area Aeronautics.

"This key milestone is proof of our ability to build world-class fighters on time and on budget and it brings us one step closer to first flight and delivery to our customer", says Ulf Nilsson.

The event will be livestreamed on our website making it possible for people around the world to take part. Please visit www.gripen.com/evolution to learn more about the Gripen Evolution and to watch the unveiling of the Gripen E.

The live webcast will start on Wednesday 18 May at 15.00 CET. Registration for the webcast is not required.

To follow the event in social media, join the conversation at #smartfighter and follow @saab on twitter.

For further information, please contact:

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Saab serves the global market with world-leading products, services and solutions within military defence and civil security. Saab has operations and employees on all continents around the world. Through innovative, collaborative and pragmatic thinking, Saab develops, adopts and improves new technology to meet customers' changing needs.

Source: Epicos, SAAB

Naval Warfare Training System arrives in Sweden to begin installation and integration

Today at the International Training and Education Conference (ITEC), Europe's largest show for military training and simulation, CAE announced that the Naval Warfare Training System for the Swedish Navy has arrived in Sweden and installation has begun at the Naval Warfare Centre in Karlskrona.

CAE has delivered a comprehensive Naval Tactical Mission Trainer (TMT) suite comprising a total of 52 student stations along with 13 instructor operator stations to equip the Swedish Navy's Naval Warfare Training System (NWTS). Following installation and integration testing, the NWTS is expected to be ready-for-training later this summer.

This week at ITEC, CAE is demonstrating its Naval TMT suite using a student console and an instructor operator station at the CAE booth (C-140).

"The Swedish Naval Warfare Training System will be used to train and educate Swedish Navy sailors and officers in naval tactics, procedures and doctrine," said Ian Bell, CAE's Vice President and General Manager, Europe/Middle East, Africa. "The NWTS is a great example of CAE leveraging its training systems integration capabilities to provide an integrated, cost-effective training solution that combines products, core simulation technologies and post-delivery support services."

The Swedish Navy NWTS will be used for training in a range of disciplines, including sensor operations; command, control, communications and computers (C4), and weapon systems. The NWTS will allow the Swedish Navy to train and rehearse for operations in anti-air warfare (AAW), anti-surface warfare (ASuW), anti-submarine warfare (ASW), mine warfare (MW) and search and rescue (SAR).

The 52 student consoles and other parts of the NWTS are now being installed at the Naval Warfare Centre in Karlskrona as four classroom training systems. Each classroom will include student consoles and instructor operator stations for creating, managing and monitoring training exercises. The student consoles include a range of core CAE simulation technologies, such as simulation systems for sonar, radar, communications and computer-generated forces. The synthetic maritime environment has been built to the CAE-developed Common Database (CDB) standard. The CDB is an open database architecture that is rapidly updateable, interoperable and enables correlated distributed mission training.

Once the NWTS is accepted as ready-for-training during the summer, CAE will commence with providing on-site instructor and technician training as well as helpdesk support services and technical assistance.

About CAE

CAE's Defence & Security business unit focuses on helping prepare our customers to develop and maintain the highest levels of mission readiness. We are a world-class training systems

integrator offering a comprehensive portfolio of training centres, training services and simulation products across the air, land, sea and public safety market segments. We serve our global defence and security customers through regional operations in Canada; the United States/Latin America; Europe/Middle East/Africa; and Asia/Pacific, all of which leverage the full breadth of CAE's capabilities, technologies and solutions.

CAE is a global leader in 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

Source: Epicos, CAE

Qatar Airways raises stake in BA owner to 15%

Qatar Airways on Tuesday raised its shareholding in British Airways owner IAG to just over 15 percent and announced it is likely to further increase its stake.

In a statement to the London Stock Exchange, the Doha-based carrier said its shareholding in International Airlines Group (IAG), which also owns Iberia, now stands at 15.01 percent.

It is the second time it has increased its share in IAG in the past month.

"We have been very happy with our investment in IAG from a financial, commercial and strategic perspective," Qatar Airways chief executive Akbar al-Baker said in the statement.

The statement also noted there was a cap on non-EU shareholders of IAG -- international investors cannot own more than 49 percent of a European airline -- but said that would not deter it from further acquisitions.

"Non-EU shareholders of IAG including Qatar Airways are subject to an overall cap on non-EU ownership as a result of the requirement for EU airlines to be majority owned by EU shareholders," read the statement.

"Qatar Airways may consider increasing its stake further over time within the allowable limits."

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