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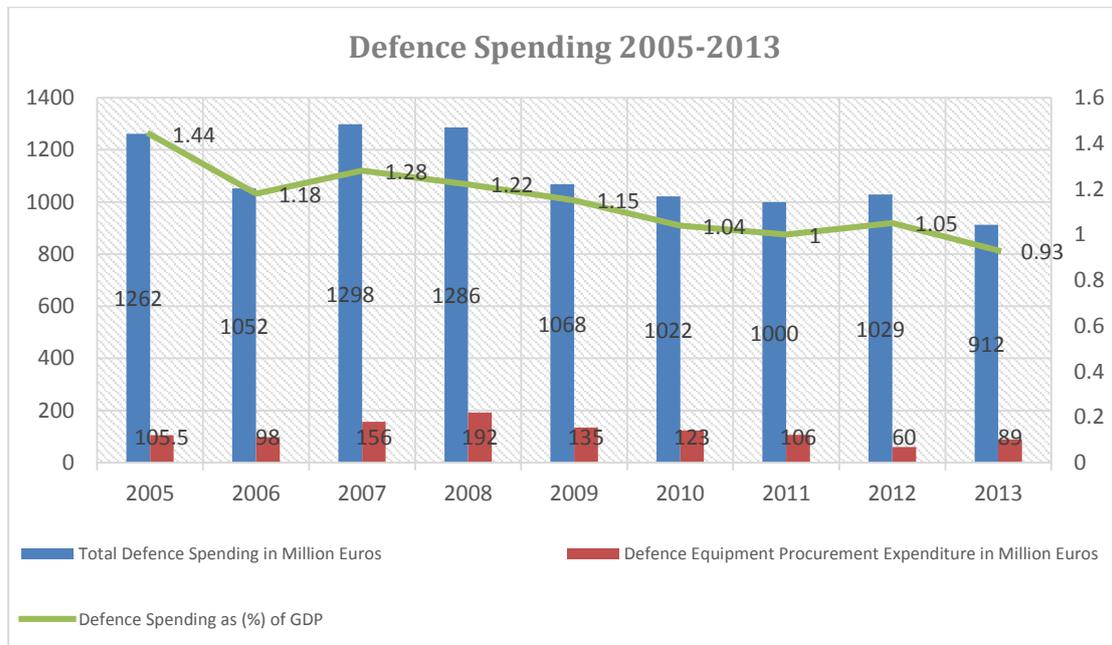
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Hungary: Defence Budget



According to the 2016 draft budget Hungarian authorities are planning to spend 299 billion forints (approximately 1.049 billion US dollars) on defence. If this is implemented, Hungarian defence budget will be increased by 22%. In 2015 Hungarian defence budget increased by 8.2%, or by 20 billion forints (approximately 70.1 million US dollars). This upward trend is due to continue as Hungarian authorities are planning to increase defence spending to about 1.4% of Gross Domestic Product (GDP) by 2022. In order to implement the Strategy and especially the objective targeting the establishment of a sustainable military force, Hungarian authorities will seek to ensure that a 40%-30%-30% proportion of personnel, operation and maintenance, and procurement costs will be realized in the mid-term within the defence budget.

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Source: EDA Database

Despite the fact that currently Hungarian authorities are deliberately trying to further enhance the country’s defence budget, this was not the case in the past. The international economic crisis created several problems to the Hungarian economy and significantly decreased the budgetary resources available to the Ministry of Defence. It is indicative that in 2005 defence spending reached 1262 million Euros, whereas defence equipment procurement expenditure was 105.5 million Euros. In 2013 defence spending was cut to 912 million Euros, whereas defence equipment procurement expenditure was 89 million Euros.

Since it left the Warsaw Pact in 1990 Hungary is constantly trying to modernise and downsize its armed forces. Having inherited a legacy of a heavy, slow- moving Warsaw Pact force is trying to modify it into a more versatile and modernised NATO force. The Hungarian military has been downsized from 130000 in 1989 to approximately 24500 in 2005. This

trend continued and in 2013 Hungarian armed forces numbered approximately 21800 personnel.

Furthermore, Hungarian armed forces undergo a structural adaptation, the main goal of which is to further enhance their organizational structure and to make the military chain of command more efficient. The ultimate objective of this process is the creation of an army that will fully meet NATO's interoperability standards and will fulfil Hungary's commitment to contribute to the NATO Force Structure, by participating in the full spectrum of Allied operations.

Kyriazis Vasileios,

Epicos Newsletter Head Editor

The Present Status of the Hungarian Defence Industry



Defence Industry Association of Hungary

Throughout the last three decades the Hungarian defence industry is in a constant process of transformation and modernization. The main reason is that Hungary inherited a heavy industry developed to fulfill the demands of the

armed forces designed for a high intensity war. After the end of the Cold War, the industry had to adjust to a completely different environment. Nowadays, the industry mainly manufactures ammunition and pyrotechnical systems, special clothing and protective equipment as well as radiation detectors. Hungary has also developed a sizeable aerospace industry able to develop and manufacture small aircraft for General Aviation; to manufacture metal and composite components for large aircraft; and to develop and manufacture UAS systems for civil and military purposes. Currently, Hungarian aerospace industry approximately 2600 people.

More on that Hungarian defence industry has the capability of providing/developing the following services and/or products:

- Air traffic control systems and services;
- Aircraft maintenance, parts repair and ground handling;
- Antennas, antenna towers;
- Armoured fighting vehicles and upgrades;
- Mortars;
- Base camp defence;
- Body armour;
- Bridge construction, renovation, opening corridors;
- Command and control system and parts (C4I);
- Communication system and devices;
- Advising and other technical assistance;
- Camouflage, hiding and Pyrotechnic cyber defence;
- Submersion system and diving tools
- Electrical devices, batteries, power supply units, power supply
- Electrical warfare and active jamming systems
- Electrical systems and parts
- Technical servicing, training, R&D
- Fire and explosion protection systems
- Fire control and target setting systems

There are several parameters helping the development of the Hungarian aerospace and defence industry. One of them is that globally recognized aerospace related R&D activity is carried out in several universities and research institutions within the country. Foreign universities are invited to establish departments and affiliated research programs in Hungarian Universities through which both the academic and industrial society are benefited.

Another strong point of the Hungarian aerospace and defence industry is its flexibility. It has the capacity and capability to produce and deliver products of reliable quality even on small

quantities. Also, the industry is aware of the Western and Russian regulations, standards, procedures and products.

Finally, a small portion of the Hungarian aerospace and defence companies export a quantity of their production. The primary products exported are the following:

- Small arms,
- Ammunition,
- Pyrotechnics,
- Explosives,
- Defence electronics.

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](#)

Development of an advanced Dynamic Noise Reduction (DNR) algorithm for hands-free communication devices used in mixed noise environments



A leading technology provider, designer and manufacturer of hands-free communication solutions for demanding use, is proposing the development of a universal Dynamic Noise Reduction (DNR) algorithm to be used in several hands-free communication devices, applied in several military and homeland security applications.

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

Mail at: g-menexis@epicos.com

Establishment of Chemical Laboratory capability



A company excelling in the area of Non-destructive Testing (NDT) is willing to expand its capabilities in special services (Special Processes - Chemical Laboratory) that will complement the production chain, attending to the growing demand for the manufacturing of efficiently machined and post-processed aeroparts.

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

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News from our A&D Business Network

Elbit Systems Joint Venture with KBR, Affinity, Awarded a Contract Valued at Approximately GBP 500 Million for the UK Military Flight Training Systems Programme



Elbit Systems Ltd. announced that Affinity Flying Services Limited ("Affinity"), its UK joint venture with Kellogg, Brown and Root Limited ("KBR"), was awarded a fixed price contract for the support of Ascent Flight Training (Services) Limited ("Ascent"), in the delivery of the UK Military Flight Training System ("UKMFTS") programme for the UK Ministry of Defence ("MOD"). Elbit Systems and KBR, each holding a 50% share in Affinity, will evenly support and benefit from the programme.

The UKMFTS programme is an innovative partnering agreement between UK Front Line Commands, the UK MOD, Ascent and other leading industry partners to deliver aircrew training for the 21st century. Revenue for Affinity associated with this programme is estimated to be approximately £500 million (\$713 million) over an eighteen-year period.

Bezhael (Butzi) Machlis, President and CEO of Elbit Systems, said: "We are very proud to take part in such an important project for the UK MOD. This award attests to our position as a leading provider of systems and training infrastructure, as well as maintenance and logistics support services". Machlis added: "The United Kingdom is one of Elbit Systems' primary markets. The award of the contract to deliver this key programme for the UK's armed forces is a significant recognition of our proven ability to adapt and deliver innovative global solutions to meet the specific needs of the UK market and customer".

About Elbit Systems

Elbit Systems Ltd. is an international high technology company engaged in a wide range of defense, homeland security and commercial programs throughout the world. The Company, which includes Elbit Systems and its subsidiaries, operates in the areas of aerospace, land and naval systems, command, control, communications, computers, intelligence surveillance and reconnaissance ("C4ISR"), unmanned aircraft systems, advanced electro-optics, electro-optic space systems, EW suites, signal intelligence systems, data links and communications systems, radios and cyber-based systems. The Company also focuses on the upgrading of existing platforms, developing new technologies for defense, homeland security and commercial applications and providing a range of support services, including training and simulation systems.

For additional information, visit: <http://www.elbitsystems.com>

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Russian Helicopters delivers 151 helicopters to India



Russian Helicopters, part of State Corporation Rostec, delivered the final batch of helicopters to India under a previously signed agreement. India received 151 Mi-17V-5 military transport helicopters produced by JSC Kazan Helicopters through Rosoboronexport. "India is one of the key markets for Russian helicopter building industry and the largest operator of Russian-made helicopters in the South-East Asia. Today, this country uses more than 400 helicopters, which have proved themselves well," said Russian Helicopter CEO Alexander Mikheev. "We produce high-tech multirole helicopters capable of solving the most difficult tasks anywhere in the world."

The Mi-17V-5 helicopters supplied to India are some of the best technically equipped helicopters of the Mi-8/17 series and gathered the best solutions of previous generations. Every Indian Mi-17V-5 helicopter is fitted with a KNEI-8 avionics suite. The suite has replaced multiple systems indicators with four large multi-functional that are easy to read and reduce the intensity of pilot's workload. This avionics suite also helps to cut down pre-flight inspection time by displaying all systems data and alerting the crew when necessary. Besides, the helicopters supplied to India are equipped with the latest and more powerful engines, which will greatly enhance its payload carriage capability at higher altitudes, characteristic of the Indian landscape.

As recently announced, Russia and India have started to implement a large project aimed to manufacture of no less than 200 light multirole Ka-226T helicopters. According to documents signed by the governments of the two countries, no less than 200 of the Ka-226T helicopters and their modifications will be manufactured in India. The agreement also includes maintenance, operation, repairs of helicopters and provision of technical support.

In addition, the Indian Air Force is planning to order another 48 Mi-17V-5 helicopters. These new helicopters will be used for flights over various landscapes, in deserts as well as in mountainous regions.

Kazan Helicopters produces Mi-8/17 series helicopters that are operated in over 100 countries worldwide. A wide range of configurations are produced: transport, passenger, search and rescue, landing and transport, among many others. Preparations are underway to launch production of the Mi-38 passenger transport helicopter. Since 1997, Kazan Helicopters has been certified to develop helicopter technology: today the light twin-engine Ansat helicopter is in series production.

Russian Helicopters, (part of State Corporation Rostec), is one of the global leaders in helicopter production and the only helicopter design and production powerhouse in Russia. Russian Helicopters was founded in 2007 and is headquartered in Moscow. The company comprises five helicopter production facilities, two design bureaus, a spare parts production and repair facility, as well as an aftersale service branch responsible for maintenance and repair in Russia and all over the world. Its helicopters are popular among Russian ministries and state authorities (Ministry of Defence, Ministry of Internal Affairs, Emergency Control

Ministry), operators (Gazpromavia, UTair), major Russian corporations. In 2014 its IFRS revenues increased 22.8% to RUB 169,8 billion. Deliveries reached 271 helicopters.

State Corporation Rostec is a Russian corporation founded in 2007 for the purpose of promoting the development, production and export of hi-tech civilian and military industry products. It comprises 700 organisations, nine of which have now been formed as holding companies of the military-industrial complex, five of them are involved in civil industries and 22 are directly controlled. Rostec's portfolio includes recognised brands such as Avtovaz, Kamaz, Russian Helicopters, and VSMPO-AVISMA. Rostec's organisations are located in 60 constituent entities of the Russian Federation and supply their products to the markets of more than 70 countries. The revenue of Rostec in 2014 amounted to RUB 964.5 billion. The tax deductions into the treasuries at all levels exceeded RUB 147.8 billion.

For Further Information [Click Here](#)



U.S. Navy Extends General Dynamics' Fire Control Systems Work for U.S. and U.K. SSBN Submarines

The U.S. Navy recently awarded a follow-on, omnibus contract to General Dynamics Mission Systems that continues a broad scope of work for fire control systems and subsystems aboard U.S. Navy and United Kingdom's Royal Navy nuclear ballistic-missile submarines (SSBN). The contract has a total potential value of \$440 million over the next seven years.

General Dynamics will deliver support and modernization of the existing SSBN strategic weapon system including fire control subsystem installation, maintenance, sustainment, training and repairs to navigation and launch subsystems. The company will also develop the fire control system for the U.S Navy's Ohio Replacement submarine and the Royal Navy's Successor-class ballistic-missile submarine, and the production of new systems for the Royal Navy's first-of-class SSBN 09 submarine and Trident Training Facility. Work on the development and sustainment of the U.S. Navy's Ohio-class guided-missile submarine attack weapon control system is also part of the contract.

Carlo Zaffanella, vice president and general manager of General Dynamics Mission Systems' Maritime and Strategic Systems business, said, " Our support for the Navy's strategic deterrent program spans nearly six decades and forms the very fabric of our business. Continuing the work we have done on existing Ohio SSBN fire control systems, and the development of the fire control system for the Navy's newest fleet of nuclear submarines, demonstrates our ongoing relationship built on trust, partnership and innovation with the U.S. and U.K. naval forces."

The omnibus contract is a follow-on to a contract awarded to General Dynamics in December 2014 for the development, production, installation and deployed-systems support of U.S. and U.K. Trident II submarine strategic weapons systems and subsystems. A majority of the work will take place at General Dynamics' facility in Pittsfield, Massachusetts.

General Dynamics Mission Systems has supported strategic systems for the U.S. Navy for 60 years.

General Dynamics Mission Systems is a business unit of General Dynamics (NYSE: GD). For more information about General Dynamics Mission Systems, please visit gdmissionsystems.com and follow on Twitter @GDMS.

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Source: Epicos, General Dynamics Mission Systems

Vaisala signs EUR 20 million contract

Vaisala has signed a EUR 20 million contract with National Hydro-Meteorological Service of Vietnam. The contract, that has been prepared over the past four years together with National Hydro-Meteorological Service, will come in force when the customer has given final approval for the technical design. Vaisala will report the contract in the order book after this approval. The deliveries will start after the contract has entered into force, and are scheduled to be completed within two years. The funding of the contract is arranged through the Finnish Concessional Credit instrument provided to National Hydro-Meteorological Service of Vietnam. This instrument is part of Finland's development cooperation portfolio, governed by the Ministry for Foreign Affairs of Finland.

In this project Vaisala will establish a high quality nation-wide meteorological infrastructure in Vietnam. The contract includes weather radar and lightning detection networks, software toolkit for weather forecasting supplied by the Finnish Meteorological Institute as well as training and spare parts. The weather radar network consists of five green-field dual polarization Doppler weather radars, a central site and upgrades to three existing weather radars.

"National Hydro-Meteorological Service of Vietnam is Vaisala's long-term customer. We have earlier delivered several weather systems to Vietnam, but this contract is more comprehensive and complex. Vietnam faces weather related challenges every year; typhoons, storms, floods and severe lightning. After establishing the meteorological infrastructure Vietnamese National Hydro-Meteorological Service will be able to serve the whole nation with high quality meteorological data and weather forecasts. This is Vaisala's largest contract. Finnish Concessional Credit to the buyer has enabled our Vietnamese customer to start this major meteorological infrastructure project", tells Kjell Forsén, Vaisala's President and CEO. The contract will not have an impact on Vaisala's net sales and operating result (EBIT) for the financial year 2015. Vaisala will publish 2015 financial statements on February 10, 2016.

Further information

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Distribution

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Key media

www.vaisala.com

Vaisala is a global leader in environmental and industrial measurement. Building on 80 years of experience, Vaisala contributes to a better quality of life by providing a comprehensive range of innovative observation and measurement products and services for chosen weather-related and industrial markets. Headquartered in Finland, Vaisala employs

approximately 1,600 professionals worldwide and is listed on the NASDAQ OMX Helsinki stock exchange. www.vaisala.com

Source: Epicos, Vaisala

CAE announces commercial and business aviation training contracts valued at more than C\$350 million

CAE underscores its position as training partner of choice with the announcement of a series of contracts, including the sale of 9 full-flight simulators to airlines globally, as well as commercial and business aviation training programs with more than 10 operators. These agreements, valued at more than C\$350 million, cover a broad range of CAE's training equipment and programs, from commercial cadet to captain training, to business aviation pilot training, to training centre operations and post-delivery services. Approximately half the value of these contracts was booked in CAE's third quarter and the balance in the beginning of the fourth quarter of fiscal year 2016.

The 9 full-flight simulators (FFSs) sales bring the total number of FFS sales announced to date in fiscal 2016 to 39. CAE expects to exceed its prior FFS sales outlook for the fiscal year. The FFSs are at list prices, which include the value of OEM aircraft-specific data, parts and equipment (DP&E). In the case of these contracts, some customers are providing part of the OEM content.

The contracts include:

Commercial and Business Aviation Training

An exclusive 4-year training agreement for commercial pilot training with an undisclosed customer in North America

Over C\$100 million in training programs with more than 10 business aviation operators in the United States, Europe, Asia and the Middle East, reflecting CAE's dedication to customer service and tailored approach to training. These contracts represent both new and renewal business for initial and recurrent pilot training as well as maintenance training for technicians.

Training equipment, including the sale of 9 full-flight simulators

- One A320 full-flight simulator to CAE Simulation Training Private Limited (CSTPL), the joint venture between CAE and InterGlobe Enterprises
- One MRJ 90 engineering full-flight simulator to Mitsubishi Aircraft Corporation
- One ATR-600 full-flight simulator and one 400XR flight training device to an undisclosed European customer

- One Boeing 737NG full-flight simulator to an undisclosed customer in North America
- Five full-flight simulators, including three Boeing 737MAX, one A320 Neo and one ATR 42/72 full-flight simulators to an undisclosed customer in Asia

Training centre operations and post-delivery services

Over C\$35 million in training centre operations, maintenance and updates services to customers in North America, Europe, and Asia, supporting our partners' needs to maintaining training assets and upgrade to the latest aircraft fleet standard.

"CAE places such great importance on our long-standing customers around the world, and we are thrilled to support our partners' growth," said Nick Leontidis, CAE's Group President, Civil Aviation Training Solutions. "These agreements reaffirm CAE's commitment to providing our customers with high quality training programs in convenient, desirable locations with outstanding customer service."

CAE Simulation Training Private Limited (CSTPL): A320 full-flight simulator

CAE Simulation Training Private Limited (CSTPL) in Greater Noida, NCR Delhi, India, the joint venture between CAE and InterGlobe Enterprises, has ordered an A320 full-flight simulator. CSTPL is growing as the centre of excellence and adding simulator capacity. The CAE 7000XR full-flight simulator will be equipped with the innovative CAE Tropos 6000XR visual system.

The full-flight simulator will be located at the CSTPL 6-bay training center in Greater Noida along with the other 3 A320 full-flight simulators currently in operation, and will be ready-for-training by October 2016.

"With its six simulator bays, the center will have the capacity to train over 5,000 aviation professionals per year, and will be the largest such facility in India", said Ashwani Acharya, Business Head of CSTPL.

Mitsubishi Aircraft Corporation (MITAC): MRJ 90 engineering flight simulator

CAE has sold one MRJ 90 engineering flight simulator to Mitsubishi Aircraft Corporation. The CAE 7000XR engineering flight simulator will be equipped with the latest CAE Tropos 6000XR innovative visual system, offering unprecedented realism, and will be used by MITAC engineering and test pilots through the development and flight testing phases of the MRJ 90 aircraft program. The device will be delivered at MITAC's facilities in Nagoya, Japan.

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.

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Source: Epicos, CAE

Boeing, Turkish Airlines Announce Long-Term Collaboration Agreement

Boeing and Turkish Airlines (THY), building on their 70-year relationship, today signed a collaboration agreement that will strengthen Turkish Airlines' long-term industry leadership, as well as Turkey's aerospace and technology capabilities.

In the agreement, Turkish Airlines and Boeing identified several potential areas of new cooperation, expanding on Boeing's already-significant investment with Turkish industry.

Boeing Commercial Airplanes President and CEO Ray Conner and Turkish Airlines Chairman Ilker Ayci signed the Strategic Alliance Agreement during a visit by the airline's executives to Seattle for the delivery of their new Boeing 777-300ER (Extended Range).

"Turkish Airlines is one of the world's leading carriers that established its position through strategic investment in its fleet, product and network resulting in impressive passenger growth figures," said Ayci. "With today's signing we deepen our relationship with one of the leading brands in the aerospace industry, our long-term partner Boeing, and continue to seek new, innovative ways to grow the airline. We look forward to continuing this strong relationship with Boeing and announcing the various projects that the companies will agree to collaborate on in the future."

"Boeing is proud to further our strong, committed relationship with Turkish Airlines in ways that support both companies' profitable growth and Turkey's long-term development," said Conner. "Together, Boeing and Turkish Airlines will identify and develop new, mutually beneficial business opportunities that build on and complement our mutual strengths."

Suppliers across Turkey currently support all five current Boeing Commercial Airplanes programs, delivering Turkish-made components valued at more than \$120 million annually.

Building on these strong industrial ties, the new agreement between Boeing and Turkish Airlines identified several additional areas of long-term cooperation. They include development and training, activities to enable the global competitiveness of Turkey's aviation manufacturers, and support for Turkey's research and technology capabilities and aerospace infrastructure.

Turkish Airlines and Boeing share a long history that goes back to 1945, with the arrival of the airline's first DC-3/C-47 airliners. Turkish Airlines entered the jet age in the late 1960s, when the airline began operating DC-9, DC-10 and Boeing 707 airplanes.

Over the years, Turkish carriers have also flown the Boeing 727, 757, MD-80 and the most modern 737 and 777 airplanes. Turkish Technic, a subsidiary of the airline, is a world-class maintenance center for Boeing 737 airplanes, with certifications from regulatory authorities throughout the region and beyond.

Boeing has maintained a long-standing and mutually beneficial relationship with Turkey since the mid-1940s. In addition to providing commercial jetliners, Boeing is a supplier of defense products to the Turkish armed forces and a significant and trusted partner of the Turkish aerospace industry.

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For Further Information [Click Here](#)

Source: Epicos, Boeing Commercial Airplanes

Multimillion-euro order: Rheinmetall to modernize air defence system of an international customer

An international customer has awarded Rheinmetall a multimillion-euro order to modernize its Skyguard air defence systems. The order is worth €390 million. Delivery will take place between 2017 and 2020.

A key element of the modernization programme consists of equipping the missile/gun air defence systems with advanced radar technology. The customer country's air defence corps will thus have at its disposal the most advanced version of the tried-and-tested Skyguard system, which is designed to engage aerial targets at medium to very short ranges.

Besides a new search radar, the Skyguard systems will be outfitted (among other things) with a new target tracking radar, a latest-generation friend-foe identification system as well as cutting-edge electronic warfare components. The missile launcher will be upgraded with a new state-of-the-art electronic pod, which will enhance the system's missile capability. Furthermore, logistical support will also be improved.

Just awarded, the contract underscores on the one hand the importance of the Skyguard system in high-performance air defence networks, and on the other the high regard enjoyed by Rheinmetall as a centre of excellence for ultramodern air defence solutions.

For Further Information [Click Here](#)

Source: Epicos, Rheinmetall