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# June 2015: Orders & Deliveries for Airbus



Currently, the aerospace industry is growing rapidly throughout the globe. The largest aerospace

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companies have received purchase orders for new airplanes. This is highlighted by the fact that during the first six months of 2015, Airbus delivered a total of 304 aircraft to 67 customers worldwide. Additionally, the

June bookings brought Airbus' net orders for the first half of 2015 to 348 aircraft, taking cancellations into account.

June was a "busy" month for Airbus. Amongst others the European company concluded an order with Dubai-based International Airfinance Corporation for 30 A320ceo aircraft and 20 A330-300s for lease to Saudi Arabian Airlines.

Another major agreement in June was the 45 A320neo and 15 A321neo jetliners ordered by GE Capital Aviation Services (GECAS), the aviation leasing and financing arm of General Electric. This brings A320 Family aircraft ordered by GECAS to a total of 465. Additionally, it is worth mentioning that Airbus' delivery of 42 A320 Family jetliners in June brought overall Airbus single-aisle aircraft deliveries to more than 6,600, while the total A330s provided to customers surpassed the 1,200 mark.



Other activities that went through on June

were deliveries of 19 wide-body aircraft, among which were: three A380s; two A350s (one to AerCap for Vietnam Airlines, and the other to A350 launch operator Qatar Airways); the second A330-300 to Delta Air Lines with an increased 242 tonne maximum take-off weight; the initial A330 for Tunisair (an A330-200); and the first A330 to Kuwait Airways (in the A330-200 version).

Kyriazis Vasileios,

Epicos Newsletter Head Editor

# Boeing: Deliveries for the 2<sup>th</sup> Quarter of 2015

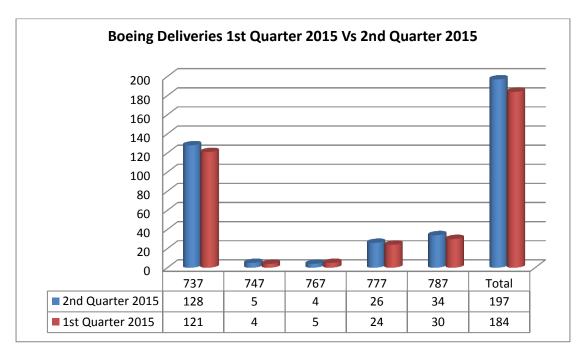


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The Boeing Company delivered 197 airplanes

in total during the 2<sup>nd</sup> quarter of 2015. The aircraft with the most deliveries for this quarter was the 737 with 128 deliveries and was followed by the 787 and 777 with 34 and 26 deliveries respectively. The 747 followed with 5 aircraft and the 767 with 4 aircraft delivered each.

Compared with the deliveries the company completed during the first quarter of 2015 these of the second quarter were improved. The Boeing Company delivered 184 aircraft in total during the first quarter of 2015.



One of the deliveries Boeing concluded was that of the 25th direct 777 delivery, to Thai Airways International Public Company Limited (THAI).

"This is a very special delivery for us – our 25th 777 delivery from Boeing," said THAI President Mr. Charamporn Jotikasthira. "The flexibility of the 777 family has played a significant role in our continued success and our latest 777-300ER will ensure we continue to expand our long haul markets efficiently and economically, while providing our passengers the best possible experience."

Regarding the defence operation of the company, during the 2nd quarter of 2015 Boeing delivered 19 Apache new and remanufactured, 15 Chinook, 2 C-17 Globemaster III, 9 F/A-18 and 1 Military Satellite.

Kyriazis Vasileios, Epicos Newsletter Head Editor

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# **Epicos "Industrial Cooperation and Offset Projects"**

epicos.com Epicos "Industrial Cooperation and Offset Projects" provides a unique set of online tools enabling the structure, identification and implementation of comprehensive Offsets programs, through a searchable database. By introducing different offset projects and ideas proposed by local A&D industry it ensures the optimum cost for Prime Contractors and reassures that the priorities of local industry are fully met...

### For Further Information Press Here

### Development of a customized Howitzer crew training and simulation system



A leading player in artillery simulation and training concepts is interested in expanding its Howitzer crew training and simulation system into new markets. The complete training system is a proven concept, which uses a complete turret with all equipment, dummy ammunition and monitoring systems for the instructors to make sure that artillery training can be performed as realistic as possible. The system simulates the whole firing process and is considered to be much more cost effective than training in the real environment. Having delivered more than 50 systems to 10 international customers

worldwide, the company has established the market leadership in this field. The company is interested in expanding this leadership and extend its customer base to new countries. In this context, the company is willing to cooperate with a prime contractor to develop a customised Howitzer training system, which can be offered to a third country as part of a direct or indirect offset programme.

### For Further Information Contact our ICO Department

Mail at: g-menexis@epicos.com

# Provision of a primary training aircraft for acrobatics and military purposes



A company excelling in the area of primary training aircraft construction is willing to provide its primary training solution as an entry level training tool for small countries' air forces.

For Further Information Contact our ICO Department Mail at: g-menexis@epicos.com

# *News from our A&D Business Network*

# epicos.com Luxaviation S.A. takes delivery of its first Phenom 300's Embraer Executive Jet



Embraer Executive Jets delivered the first Phenom 300 to Luxaviation S.A. which is part of Luxaviation Group, the second largest business aviation group in the world based in Luxembourg. Luxaviation Group has been rapidly expanding its business worldwide through acquisitions bringing valuable benefits to customers. With a broader range of aircraft types, the

collaboration between the Group's companies enhances best practices in all operational areas. Luxaviation Group today operates a combined fleet of more than 250 business aircraft, including 18 Embraer business jets.

"I'm glad to welcome Luxaviation S.A to the Phenom 300's family," said Marco Túlio Pellegrini, President & CEO Embraer Executive Jets. "As an Embraer executive jets fleet operator, Luxaviation Group recognizes our expertise in design-differentiated products as well as our excellence in customer services. I'm very confident with this long-term partnership, which will allow us to support Luxaviation Group's operations and increasing presence in some of the world's fastest growing business aviation markets".

Patrick Hansen, CEO of Luxaviation Group says: "The integration of the Embraer Phenom 300 type aircraft into our 250 jet fleet allows us to diversify and develop our offer mainly for growing markets and specifically for the fast-growing Asian business jet market. It responds to clients' needs for a diversified fleet providing high flexibility.

The Phenom 300 is the most delivered business jet for the second year in a row. The aircraft is in operation in more than 20 countries and has accumulated over 200,000 flight hours. In five years of operation, the Phenom 300 fleet has surpassed the 250 aircraft mark, having reached a 57% market share in the light jet category.

### About the Phenom 300

The Phenom 300 performs among the top light jets, with a high speed cruise of 453 knots and a six-occupant range of 1,971 nautical miles (3,650 km) with NBAA IFR reserves. This range allows nonstop flights from Miami to Telluride, or Los Angeles to Orlando. With the best climb and field performance in its class, the Phenom 300 costs less to operate and maintain than its peers. The aircraft is capable of flying at 45,000 feet (13,716 meters), powered by two Pratt & Whitney Canada PW535E engines with 3,200 pounds of thrust each.

The Phenom 300 offers a spacious cabin, designed in partnership with BMW Designworks USA, and the largest baggage compartment in its category. The largest windows in the class deliver abundant natural lighting in the cabin as well as in the private lavatory in the back of the aircraft. The comfort of the seats, with recline and full movement capability, is enhanced by the best pressurization among light jets (6,600 ft. maximum cabin altitude). The Phenom 300 features distinct temperature zones for pilots and passengers, a wardrobe and refreshment centre, voice and data communications options, and an entertainment system.

The pilot-friendly cockpit enables single-pilot operation and offers the advanced Prodigy Touch Flight Deck. The features it carries from a class above include single-point refueling, externally serviced lavatory, and an air stair.

# About Luxaviation Group

Luxaviation Group is the second largest business aviation group in the world. It offers the expertise and know-how of 1500 employees across the globe with 250 diverse aircraft, 9 European AOCs and further 8 AOCs worldwide, 20 FBOs (Fixed Based Operators) and 14 MROs (Maintenance Repair and Overhaul Centers) throughout the world www.luxaviation.com

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### \$110 Million Received for M88 Recovery System Upgrades



The U.S. Army has awarded BAE Systems a contract worth \$110.4 million to convert 36 M88A1 recovery vehicles to the M88A2 Heavy Equipment Recovery Combat Utility Lift Evacuation Systems (HERCULES) configuration. "The HERCULES is an integral part of the U.S. Army's Armored Brigade Combat Team (ABCT) and essential to its recovery missions as the fleet becomes heavier," said John Tile, director of Recovery Programs at BAE Systems. "This award

continues the Army's stated objective to pure-fleet its M88s to the more capable HERCULES configuration."

The fleet of ABCT vehicles is getting heavier, making it increasingly important that the recovery fleet is upgraded to support it. The HERCULES, which provides recovery support to soldiers in the field, is the only vehicle able to recover the M1 Abrams tank and the heaviest mine-resistant ambush protected (MRAP) variants in a combat environment.

The M88 plays a critical role in the company's efforts to maintain the Combat Vehicle Industrial Base by supporting a team of highly skilled professionals and protecting the affordability of the Army's combat vehicles. The support of Congress and the Army to protect these vital capabilities through M88 upgrades helps sustain the workforce at BAE Systems' facilities and ensures that they will be available for future programs.

Work on the contract is expected to begin immediately by the existing workforce and will take place primarily at the company's York, Pennsylvania, and Aiken, South Carolina, facilities. Deliveries will begin in January 2017 and continue through October 2017.

For Further Information Click Here

# Epicos NewsRoom



### NASA Awards Raytheon \$240 Million Contract for Earth Science Data System

NASA's Goddard Space Flight Center has awarded the Raytheon Company a five year contract valued at up to \$240 million to continue its support of the Earth Observing Systems Data and Information System (EOSDIS). This system ingests, archives and makes earth science data available to the scientific community worldwide. The latest EOSDIS Evolution and Development (EED-2) contract is the third competitively awarded contract Raytheon has received to maintain, operate and develop improvements for data access and system performance. The initial contract award was in 1992.

"For more than twenty years Raytheon has partnered with NASA Goddard on developing innovative earth science data solutions," said Dave Wajsgras, President of Raytheon Information, Intelligence and Services. "Our support enables important research used to analyze climate data to better understand how to protect our planet."

EOSIDS is NASA's portal for earth science data provided by both NASA and upcoming international satellite missions. Raytheon's continuous innovation allows for improving user experience while managing data sets that are growing exponentially. In fiscal year 2014, the Raytheon-backed EOSDIS managed:

- 8,292 unique data set requests
- 2 million distinct users
- 27.9 terabytes per day of data distributed to end users

Under this contract, Raytheon will continue to proactively make improvements that enable more integrated data access and data sets for science applications. Specific work includes software maintenance and enhancement, development of applications to process and visualize data, and system and hardware evolution.

"Raytheon is tasked with making all of NASA's earth science data available online for scientists and researchers around the world," said Todd Probert, vice president for Mission Modernization and sustainment for Raytheon IIS. "The latest contract award demonstrates Raytheon's ability to deliver innovation on a key data processing system that has grown exponentially to 9.1 petabytes of data. Our focus is on making an enormous amount of data –the equivalent of 910 copies of Wikipedia—available to researchers any time so they can continue their important work."

Raytheon started work on EOSDIS in the early 1990's, delivering the system's core data processing components. EOSDIS was brought online in 2009 at <u>https://earthdata.nasa.gov/</u>, allowing direct user access and dramatically reducing access times and data management burdens.

## About Raytheon

Raytheon Company, with 2014 sales of \$23 billion and 61,000 employees worldwide, is a technology and innovation leader specializing in defense, civil government and cybersecurity markets throughout the world. With a history of innovation spanning 93 years, Raytheon provides state-of-the-art electronics, mission systems integration and other capabilities in the areas of sensing; effects; and command, control, communications and intelligence systems, as well as cybersecurity and a broad range of mission support services. Raytheon is headquartered in Waltham, Mass. For more about Raytheon, visit us at <u>www.raytheon.com</u> and follow on Twitter @Raytheon.

Media Contacts Raytheon Jason Kello +1.571.250.1428 iispr@raytheon.com

Source: Epicos, Raytheon

# IAI and THALES Have Integrated a New NATO Stanag 7085 Datalink Capability on Heron Male UAV

Israel Aerospace Industries (IAI) and Thales have conducted, in Israel, risk reduction flight tests for the integration of Thales and Elisra's NATO STANAG 7085 data link on board the Heron Medium-Altitude Long-Endurance unmanned aerial vehicle (MALE UAV).

Through a joint effort between IAI and Thales, Thales's data link terminal, the TMA 6000, together with Elisra Radio Frequency Modules and antennas, have been integrated on board the Heron system and successfully demonstrated in flight. During the flight test, both infrared and daylight videos were transmitted in real time to the ground control station, and the sensors were controlled in real time from the ground.

The TMA 6000 complies with NATO STANdard Agreement (STANAG) 7085: the waveform standard for real time transmission of videos, images and other Intelligence Surveillance Reconnaissance (ISR) data from on-board sensors to dedicated ISR stations. This compliance ensures NATO interoperability and guaranties radio frequency authorisation in full alignment with the International Telecommunications Union (ITU) regulation, as well as high resistance to jamming and interception. The TMA 6000 offers exceptional radio performances with a throughput capability up to 137 Mb/s.

The Heron is a MALE UAV developed by Israel Aerospace Industries. It is capable of operations of up to 45 hours in duration at up to 30,000 ft. The different variants of Heron are operated by more than 15 nations worldwide including: Israel, Australia, Canada, France, Germany, and more.

About IAI Ltd.

IAI is Israel's largest aerospace and defense company and a globally recognized technology and innovation leader, specializing in developing and manufacturing advanced, state-of-theart systems for air, space, sea, land, cyber and homeland security.

To find out more please visit: <u>www.iai.co.il/</u>

Press contacts:

Thales - Media relations Defence Aerospace Emmanuelle Le Fol +33 1 57 77 91 71 emmanuelle.lefol@thalesgroup.com

IAI – Media relations Eliana Fishler, Senior VP Communications + 972 3 935 8509 efishler@iai.co.il

For Further Information Click Here

Source: Epicos, Thales

### CAE wins defence contracts valued at more than C\$150 million

CAE today announced that it has won defence contracts valued at more than C\$150 million to provide simulation products as well as training services for global military customers.

Some of the key contracts include providing additional MH-60R training devices for the Royal Australian Navy, additional UH-72A Lakota flight training devices for the U.S. Army, and two full-mission simulators for an undisclosed customer in the Europe/Middle East/Africa region.

The contracts announced today are included as part of CAE's Defence and Security order intake for the first quarter. Also of note, the value of this announcement includes an order

for two P-8A operational flight trainers for the U.S. Navy, which was communicated to trade media on June 29, 2015.

"Our focus on being a training systems integrator has enabled us to make good progress on the implementation of our strategy in the first quarter, which included the competitive win to provide the U.S. Army with long-term fixed-wing training services," said Gene Colabatistto, CAE's Group President, Defence & Security. "These additional contracts we are announcing today are all related to the extended use of simulation-based training as part of these programs, further demonstrating that global defence forces are increasingly adopting synthetic training for more of their training requirements."

# US Navy/Royal Australian Navy

CAE was awarded a contract to develop an MH-60R composite maintenance trainer (CMT) as well as procure an MH-60R rear crew trainer (RCT) for the Royal Australian Navy (RAN) under the United States foreign military sale (FMS) program.

CAE USA will be the prime contractor responsible for the design and development of the MH-60R CMT that will be delivered in 2017 to HMAS Albatross, located near Nowra in New South Wales. CAE USA will also procure a commercial-off-the-shelf MH-60R RCT from Australia-based Virtual Simulation Systems and have responsibility for delivery and installation at HMAS Albatross. CAE has already delivered one MH-60R tactical operational flight trainer (TOFT) and one MH-60R avionics maintenance trainer/weapons load trainer to the RAN, and will deliver a second MH-60R TOFT in 2016.

The MH-60R CMT will be a modified MH-60R helicopter specifically designed to provide mechanical, electrical and hydraulic systems training to RAN MH-60R aircraft maintenance personnel. The MH-60R CMT will include a suite of instructor-controlled malfunctions that facilitate training in fault isolation and removal/replacement of aircraft components.

The MH-60R RCT will be a modified aircraft mock-up that features a module for training hoist operations as well as two weapons modules for training MH-60R door gunnery operations.

# U.S. Army UH-72A Lakota

CAE was awarded a contract by Airbus Defense and Space, Inc. to manufacture two additional UH-72A Lakota flight training devices (FTDs). These UH-72A FTDs, the seventh and eight being produced by CAE for the U.S. Army, will be delivered to Fort Rucker, Alabama during the spring of 2016. These training devices, which are Federal Aviation Administration (FAA) Level 6-capable FTDs that feature an aircraft-specific cockpit with the fidelity and performance of a full-flight simulator without the motion, will support rotary wing pilot training at the U.S. Army's Aviation Center of Excellence (USAACE).

The CAE-built UH-72A FTDs feature a vibration platform and a wide 200-degree by 70degree field-of-view display system driven by the next-generation CAE Medallion-6000 image generator to immerse pilots in a high-fidelity synthetic training environment. The UH- 72A FTDs for the U.S. Army are also fielded with the CAE-developed Common Database (CDB), enhancing the Army's ability to leverage existing U.S. Government-owned databases to support their helicopter training requirements.

# Undisclosed customer

CAE has been awarded a contract to provide two full-mission simulators for an undisclosed customer in the Europe/Middle East/Africa region.

# About CAE

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. <u>www.cae.com</u>

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Source: Epicos, CAE

# Saab Signs Warhead Contract

Defence and security company Saab has signed a warhead production contract with MBDA France for the MMP medium-range missile. The order has been placed with Saab's subsidiary Saab Bofors Dynamics Switzerland (SBDS). Deliveries are scheduled for 2017. The MMP (Missile Moyenne Portée, medium-range missile) is a high-technology, newgeneration battlefield missile. It is established as one of the French MoD's major new programmes, within its Military Planning Act 2014-2019, to modernise the French Army. This versatile missile, conceived by MBDA France, is currently in its development phase following notification of a development contract by the French defence procurement agency, the DGA.

The warhead for the MMP has been developed by Saab Bofors Dynamics Switzerland (SBDS). With high precision, the MMP will enable armed forces to neutralise the many different target types that they might encounter. Tests with the warhead against the latest generation

of explosive reactive armour have been successfully completed. The warhead ensures that collateral damage is kept to a minimum while maximising the safety of the operator.

"Our cooperation with MBDA France is extraordinary and mutually beneficial," says Stephan Kocher, head of Saab Bofors Dynamics Switzerland.

SBDS is an industry leader in the design, development and production of mortar rounds, warheads, less-lethal applications and other energetic products. The company is a specialist in total munitions life cycle management and provides servicing of different ammunition types, mainly for large-calibre products. SBDS operates as a subsidiary of Saab and is based in Thun, Switzerland where it maintains a start-of-the-art development and production site with advanced test and simulation facilities.

For further information, please contact:

Saab Press Centre, +46 (0)734 180 018, presscentre@saabgroup.com www.saabgroup.com www.saabgroup.com/YouTube Follow us on Twitter: @saab

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

# Elbit Systems Awarded an Approximately US\$150 Million Contract to Supply Advanced Systems to the Armed Forces of the Benelux Countries

Elbit Systems Ltd., announced today that its subsidiary, Elbit Systems Land and C4I Ltd., was awarded a contract from the Dutch Ministry of Defense, to supply advanced systems for the infantry soldiers in the Benelux countries - Netherlands, Belgium and Luxemburg. The contract, valued at approximately US\$150 million, will be performed over a five-year period. Elbit Systems will serve as the program prime contractor and Thales Netherlands B.V ("Thales") will be its main sub-contractor. Other local companies will take part in the project, providing support and immediate response to the customer's needs.

The Smart Vest, a cutting-edge technological program, is a co-operation between the soldier modernization programs of the Benelux countries: Netherlands' VOSS, Belgium's BEST and Luxemburg's COMPASS. It is the first strategic joint program of the Benelux countries, and will provide the ground soldiers with a cutting-edge system that will provide enhance survivability and safety while increasing their capabilities and effectiveness in the digital battlefield. The systems will be light-weight, modular and scalable and will interface with existing systems.

The Smart Vest program will include wearable and protective systems for the soldier, command and control systems, including advanced audio and data radio systems, specialized displays and C4I capabilities as well as vehicle systems.

Bezhalel (Butzi) Machlis, President and CEO of Elbit Systems said: "We are very proud of the Benelux countries decision to choose Elbit Systems as the main supplier of soldier systems. The fact that such advanced armies have selected our solutions attests to our technological leadership and to the maturity of our solutions. We will welcome domestic Benelux companies to join us in the project in order to strengthen the support for the local customers."

# 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: <u>http://www.elbitsystems.com</u>

Source: Epicos, Elbit Systems