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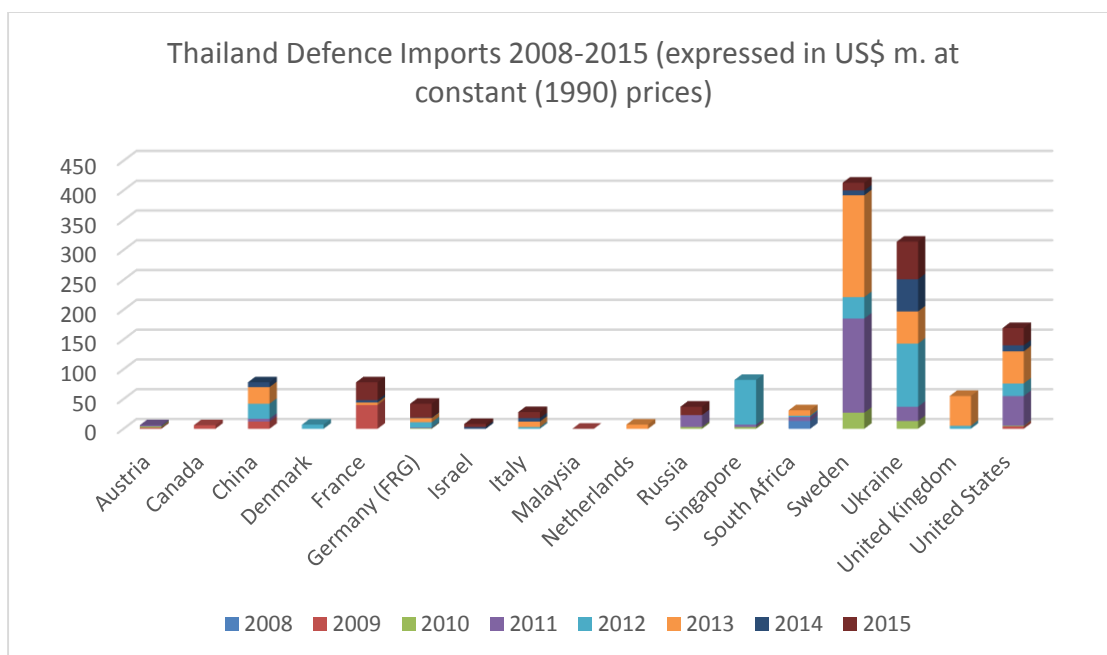


Thailand: Defence Budget & Future Procurements



According to official estimations provided by the Thai Bureau of the budget, proposed defence budget for 2017 is 214 billion baht (approximately USD 6 billion), slightly increased compared to 2016, when defence spending amounted to 207 billion baht (approximately USD 5.8 billion). This increase is the lowest since the government came to power following the military coup in May 2014. Military cooperation with neighbouring countries, members of the Association of Southeast Asian Nations (ASEAN) and with international organisations such as United Nations (UN) are the main priorities of Thai defence strategy.

It is estimated that in the next few years, the defence budget will further increase, driven mainly by the modernisation plans of the government. According to reports, the Royal Thai Army is seeking to procure new tanks and new helicopters for replacing aging models that are now in operation. On the other hand Royal Thai Air Force, is expected to upgrade its existent fleet. Finally, the Royal Thai Navy is expected to procure in the long run, new frigates and Offshore Patrol Vessels (OPVs). Towards this direction, BAE Systems signed a new contract with Bangkok Dock to assist in the licensed construction of a 90 metre OPV. Under the agreement BAE will provide engineering support and advice during construction of the vessel in Thailand.



Source: SIPRI Database

Sweden has a leading role in the Thai armament imports. Apart from the European country, other countries that exported arms to Thailand, for the period 2008-2015, are Ukraine, USA and Singapore. Sweden has maintained its predominant place in defence imports mainly due to the fact that Thailand has been among the top 10 markets for Saab over an extended period of time.

Thai-Swedish relations were further strengthened with the Bilateral Cooperation Program signed by the Prime Ministers of Sweden and Thailand during their meeting in January 2004. Since then Thailand purchased from Saab 12 Gripen fighters, as well as two SAAB 340 AEW aircraft. Also Saab upgraded the combat management and fire control systems on two frigates of the Naresuan class. More specifically, frigates H.T.M.S. Naresuan and H.T.M.S. Taksin were equipped with new combat management and fire control systems, 9LV Mk4 and CEROS 200. Saab also upgraded the command and control system on the aircraft carrier H.T.M.S. Chakri Narubet. Finally, the Swedish company, with the help of the Thai Aviasatcom, supplied data-link equipment to the Naresuan and Taksin frigates, which allows communication between the frigates and Thailand's existing Gripen aircraft and the two Saab 340s which are fitted with the ERIEYE airborne radar system.

Kyriazis Vasileios,
Epicos Newsletter Head Editor

Thailand: Defence Industry Current Capabilities and International Synergies



According to Thai authorities defence industry is one of the sectors that could be further developed in order to both boost national stability and economy. The Defence Technology Institute (DTI) will lead the efforts of the Thai government for modernising the local defence industry. The scope is to locally design and develop new weapon systems and to link them with commercial opportunities as well as with the needs of the local armed forces. Towards this direction, DTI carried out more than 20 Research and Development projects in 2015. Additionally, Thai authorities have repeatedly invited private sector entities to participate in the state-run effort to localize the development of military equipment.

Today, Thailand has several companies that provide goods and/or services for the defence industry. Marsun Company Limited, a shipyard located near Bangkok at Samutprakarn is one of them. Marsun has delivered over 260 various types of vessels, including Fast Patrol Craft, Fast Attack Missile Craft, Crew and Supply Vessels, Ferries, Motor Yachts, Oil Spill Recovery Vessels and Multi-Purpose Craft. Another shipbuilding company, is the Bangkok Dock Company Limited, which operates as a state enterprise under the oversight of the Royal Thai Navy.

Additionally, several Thai governments provide Maintenance Repair and Overhaul (MRO) services. Thai Aviation Industries (TAI) and THAI's Maintenance Centre are the most noteworthy of them. TAI is the country's military aircraft repair and maintenance service center. The government approved the TAI's establishment on 23 September 2003, while TAI started operating on 29 January 2004. THAI's Maintenance Centre provides a full range of maintenance services including certified Heavy Maintenance (D-checks) or complete aircraft overhaul, for a big variety of civil aircraft, including B747, B777, A330B4, A310, A300-600, A330, B737, ATR42, ATR72 and BAE146.

Finally, AVIA Group was established in 1992 and is one of the few Thai companies to place high importance in the R&D of electronic defence products. Avia Group, develops among others, telecommunication and military surveillance systems.

In order to further enhance the technological level of the local defence industry Thai authorities have promoted the creation of cooperative schemes with foreign partners. Under this context Saab has entered into a joint venture with the Thai company AVIA Group. More on that Saab has agreed to transfer 100 man-years of advanced aerospace technologies to Thailand, with the aim to transfer technology, through long-term partnerships with local companies and institutions. The transfer will also provide partnership for the local industry in future development programs including the Gripen program.

Additionally, Honeywell is present in Thailand for more than 20 years. Since 1987, Honeywell Systems (Thailand) has been providing local customers with automation and control systems

and products for industrial complexes and building solutions. Currently, the US based company has three subsidiaries in the country: Honeywell Systems (Thailand) based in Bangkok and Rayong, Honeywell Electronic Material (Thailand) base in Chonburi and Honeywell Holdings Thailand, employing more than 400 employees.

Moreover Singapore Technologies Engineering Ltd (ST Engineering), has set up a wholly owned subsidiary, ST Electronics (Thailand) Limited, in Thailand with a paid up capital of Thai Baht 120,000,000 (about S\$4.8m). ST Electronics Thailand provides transportation and advanced electronics solutions.

Finally, on 29 January 2016, BAE Systems signed a new contract with Bangkok Dock to assist in the licensed construction of a 90 metre OPV. Under the agreement BAE will provide engineering support and advice during construction of the vessel in Thailand.

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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...

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Upgrade of aircraft and helicopters internal & external lighting for Night Vision Imaging Systems (NVIS) compatibility



A company with extensive experience in the design and manufacturing of illuminated display and control systems is proposing in the frame of an offset program cooperation with a military or homeland security agency or with prime contractors for the upgrade of special operation aircraft and helicopters internal & external lighting for Night Vision Imaging Systems (NVIS) compatibility.

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

Mail at: a-kintis@epicos.com

New installation or upgrade of existing UAV engine Test Cell with modern technology



In order to maintain high operational availability of a UAV fleet, a full engine test cell is more than necessary. This test cell can allow periodic testing of the UAV engine, carrying out performance control procedures and thus preventing failures and mission cancellations. This will also allow effective spare parts logistic support, reducing overall operational costs while keeping UAV availability as high as possible. In this direction, a leading company in the design, development and installation of turn- key engine test facilities is proposing the upgrade of existing UAV engine Test Cells with modern technology, providing fully computerized tests for multiple UAV engines up to 150 HP, both Rotary & Combustion types.

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

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News from our A&D Business Network



Airbus Defence and Space will provide German armed forces with commercial satellite communications for the next 7 years



Airbus Defence and Space has been awarded a contract worth 113.8 million euros by the procurement agency of German Armed Forces (BAAINBw) to provide commercial satellite communication services until 2023. Airbus Defence and Space has been providing these satcom services since 2006. The contract which is valid for the next seven-and-a-half years includes the provision of access to selected C- and Ku-band transponders that are used for a variety of applications including voice and data connections in Germany, between main bases abroad as well as for boats and vessels of the Navy.

Airbus Defence and Space has also been recently awarded the in-orbit operation of the military COMSATBw1 and COMSATBw 2 satellites as well as the operation of a large teleport and associated networks in Weilheim, Germany.

The combined use of military satellites with commercial satcom provides the German Armed Forces with the capability to establish voice, video, database access and IP (Internet Protocol) services in a robust and flexible way without reliance on single assets.

“Satellite communications is an indispensable means for modern armed forces to connect theaters of operation with the homeland and to accomplish missions abroad”, said Evert Dudok, Head of the Communications, Intelligence & Security (CIS) business line at Airbus Defence and Space. “For this task a resource mix based on military satellites complemented by leased commercial capacities has proven to give the best flexibility, resilience and value.”

Airbus Defence and Space was responsible for the development and deployment of the current German Armed Forces SATCOMBw system and is the provider of choice for satcom operations and services since 2006.

About Airbus Defence and Space

Airbus Defence and Space, a division of Airbus Group, is Europe’s number one defence and space enterprise and the second largest space business worldwide. Its activities include space, military aircraft and related systems and services. It employs more than 38,000 people and in 2015 generated revenues of over 13 billion Euros.

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Saab Receives Order within AEW&C



Defence and security company Saab has received an order within the Airborne Early Warning and Control (AEW&C) segment. The order amounts to approx. SEK 1.1 billion. Deliveries will be made from 2016 until 2018. The airborne early warning and control system (AEW&C) provides access to a detailed situational awareness that for example can be used for border surveillance, search and rescue operations and for tackling terrorism and organised crime.

The effectiveness of the underlying contract is subject to fulfilment of certain financial conditions.

The industry's nature is such that due to circumstances concerning the product and customer, further information about the customer will not be announced.

Work will be undertaken within Saab's business area Surveillance and business area Support and Services.

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.



INDRA Equips the Jakarta International Airport with Its InSight Flight Information System

Indra has equipped the Bandara Soekarno – Hatta (SHIA) International Airport in Jakarta with its InSight flight information system that will provide updated data to over 60 million travelers who use it each year.

This system manages the data displayed on the 500 screens distributed in terminals 1, 2 and 3 of the airport in this country's capital. Thanks to this system, travelers are permanently informed regarding check-in counters, boarding gates, baggage claim areas, flight status, etc.

Aside from the implementation of InSight, Indra trained airport operators to provide technical and operational support to use the system.

A fast and clear presentation of this data is of vital importance to guarantee travelers convenience and so that they may easily move throughout the facilities. InSight guarantees that travelers are provided with the right information at the right time.

The use of the system optimizes the use of available resources, resulting in higher profitability and faster passenger boarding for airlines.

The system is also highly customizable and can be configured based on the airport's requirement. InSight's advanced integration capabilities ensure adaptability with existing airport systems, and autonomy from a display device manufacturer.

The system may also include commercial content and advertising in addition to flight information, an additional advantage for the airport.

InSIGHT is the FIDS or Flight Information Display System created by Indra as part of its InAIRPORT suite of operating systems.

Intelligence to grow

The number of travelers who use airports is growing noticeably each year, thereby requiring resource optimization to guarantee service quality and a positive passenger experience.

Infrastructures must be fitted with greater intelligence to achieve this. In this regard, Indra offers its InAIRPORT suite, a support system for managing airport operations. This suite includes the InPlan system for collaborative decision-making (A-CDM); the InBASE system, a database for airport operations (AODB); the InAIRPORT traveler information system; the InWATCH integrated security system; and the InUSE resource management system, that facilitates assignment of resources, detection of possible conflicts during use and optimization of use.

Indra

Indra is one of the main global consulting and technology companies and the technology partner for core business operations of its clients businesses throughout the world. It offers a comprehensive range of proprietary solutions and cutting edge services with a high added value in technology, which adds to a unique culture that is reliable, flexible and adaptable to its client's needs. Indra is a world leader in the development of comprehensive technological solutions in fields such as Defense & Security, Transport & Traffic, Energy & Industry, Telecommunications & Media, Financial Services and Public Administrations & Healthcare. Through its Minsait unit, it provides a response to the challenges of digital transformation. In 2015 it reported revenues of €2,850m, had a workforce of 37,000 professionals, a local presence in 46 countries, and delivered projects in more than 140

For Further Information [Click Here](#)

Source: Epicos, INDRA

Australia –SM-2 Block IIIB STANDARD Missiles

The State Department has made a determination approving a possible Foreign Military Sale to Australia for SM-2 Block IIIB STANDARD missiles, equipment, and support. The estimated cost is \$301 million. The Defense Security Cooperation Agency delivered the required certification notifying Congress of this possible sale on May 27, 2016.

The Government of Australia requested a possible sale of:

- ✓ Major Defense Equipment (MDE):
- ✓ Up to eighty (80) STANDARD Missile, SM-2 Block IIIB Vertical Launching Tactical All-Up Rounds, RIM-66M-09
- ✓ Up to fifteen (15) MK 97 SM-2 Block IIIB Guidance Sections (GSs)

This request also includes the following Non-MDE: MK 13 MOD 0 Vertical Launching System Canisters, operator manuals and technical documentation, U.S. Government and contractor engineering, technical and logistics support services.

The total estimated value of MDE is \$216 million. The total overall estimated value is \$301 million.

Australia is one of the major political and economic powers in Southeast Asia, a key democratic partner of the United States in ensuring regional peace and stability, a close coalition ally in major/lesser regional contingency operations, and a close cooperative and

international exchange agreement partner. It is vital to U.S. national interests that Australia develops and maintains a strong and ready self-defense capability. This sale is consistent with U.S. regional objectives.

The SM-2 Block IIIB missiles proposed in this purchase will be used for anti-air warfare test firings during Combat Systems Ship Qualification Trials for the Royal Australian Navy's three new Air Warfare Destroyers (AWD) currently under construction. The SM-2 Block IIIB missiles, combined with the Aegis combat systems in the AWDs, will provide significantly enhanced area defense capabilities over critical South East Asian air-and-sea-lines of communication. Australia has already integrated the SM-2 Block IIIA into its Perry-class FFGs and recently upgraded its Intermediate-Level Maintenance Depot at Defense Establishment Orchard Hills with new guided missile test equipment capable of maintaining the SM-2 All-Up Round. Australia will have no difficulty absorbing these new missiles.

The proposed sale of this equipment and support will not alter the basic military balance in the region.

The principal contractors will be Raytheon Missile Systems Company, Tucson, Arizona; Raytheon Company, Camden, Arkansas; and BAE of Minneapolis and Aberdeen, South Dakota. There are no known offset agreements proposed in connection with this potential sale.

Implementation of this sale will not require the assignment of any U.S. or contractor representatives to Australia.

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 [Click Here](#)

Source: Defense Security Cooperation Agency

RUAG signs ASC agreement with GE

RUAG Aviation has been named an Authorized Service Center (ASC) for the General Electric (GE) CF34-10E series engine.

The expedited approval process began in February 2016, when GE approached RUAG Aviation with its requirements. GE chose to partner with RUAG Aviation based on the two firms' longstanding relationship, and the ability of RUAG Aviation to deliver quick response times while also confirming vast in-house expertise, a strong track record and a broad service portfolio.

"The creation of a new Authorized Service Center at the RUAG Munich-Oberpfaffenhofen site complements the strongly established service portfolio offered by RUAG Aviation, enabling them to expand support of Embraer Lineage 1000 aircraft with maintenance, repair and overhaul (MRO) of GE's CF34-10E turbofan," said Brad Mottier, Vice President and General Manager of GE Aviation's Business & General Aviation and Integrated Systems organization. "RUAG Aviation has developed a solid reputation as a service provider for business jets, and this agreement will allow them to increase support capabilities for our customers in Europe."

Customers in Europe can now benefit from an expanded range of services, which includes line and base maintenance, fleet support, MRO, aircraft painting, and upgrades. Furthermore, as a one-stop shop provider, RUAG Aviation can carry out multiple upgrades – including last-minute requests – during the same downtime, keeping costs and time to a minimum.

"Becoming an Authorized GE Service Center is an important step towards strengthening our service portfolio in Europe. We look forward to continuing to work closely with General Electric and supporting our European customers," says Mark-André Mann, Head of Sales Business Aviation at RUAG Aviation.

GE Aviation is expanding its service network for business and general aviation engines, growing from 10 ASCs in 2010 to 38 in 2016. This network enables customers to have access to OEM-quality service and support around the world.

RUAG Aviation is a leading supplier, support provider and integrator of systems and components for civil and military aviation worldwide.

Servicing aircraft and helicopters throughout their entire life cycle, the company's core competencies include maintenance, repair and overhaul services, upgrades, and the development, manufacturing and integration of subsystems. RUAG is an authorised service centre for OEMs of renown, such as Airbus Helicopters, Bell, Bombardier, Cirrus, Cessna, Diamond, Dassault Aviation, Embraer, Finmeccanica, Piaggio, Sikorsky, Pilatus, Piper, and Mooney, as well as a service centre for 328 Support Services, Hawker Beechcraft, Viking und

MD Helicopters. RUAG Aviation is also a partner to the Swiss Armed Forces and other international air forces.

The company is also the manufacturer (OEM) of the Dornier 228, a versatile aircraft for challenging special missions and passenger and cargo operations.

RUAG Aviation is a certified Part 21J EASA Design Organisation, Part 21G EASA Production Organisation and Part 145 EASA Maintenance Organisation

For Further Information [Click Here](#)

Source: Epicos, RUAG

Lockheed Martin Selected to Continue Technical Support to Maintain and Enhance Micro-EARTS Air Traffic Control Automation Program

Lockheed Martin was recently selected to continue technical support of the Federal Aviation Administration's (FAA's) Microprocessor-En Route Automated Radar Tracking System (Micro-EARTS). This system receives and integrates air traffic data from multiple surveillance sources and displays the information for use in air traffic control. Micro-EARTS is currently installed in four FAA facilities at Alaska, Guam, Puerto Rico, Hawaii and at the FAA Academy and the William J. Hughes Technical Center.

With more than 20 years of operative proficiency for the National Airspace System, the Micro-EARTS program is an easily adapted and scalable system. This platform, used in large consolidated facilities as well as small configurations, provides common air traffic control functionality to all Micro-EARTS sites with a standard software and hardware model. Under this new five-year contract valued at \$28.3 million, Lockheed Martin will continue to support the FAA in the analysis, design, development and testing of air traffic control functionalities for Micro-EARTS within this program.

"In conjunction with the FAA, Lockheed Martin developed and deployed Micro-EARTS and continues to provide development and maintenance support," said Paul Engola, vice president of transportation and financial solutions at Lockheed Martin Information Systems & Global Solutions. "We value our more than 60-year partnership with FAA to enhance efficiency and safety through air traffic control automation. We look forward to providing life-cycle support services that ensure Micro-EARTS is a superior automation system for years to come as it serves its important sites and integrates with FAA's NextGen capabilities."

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

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.

Source: Epicos, Lockheed Martin

Bombardier Continues its Domination of the North American Turboprop Market with WestJet Encore Order for Nine More Versatile Q400 Aircraft

Bombardier Commercial Aircraft announced today that Calgary-based WestJet Encore Ltd. has signed a firm order for nine Q400 turboprops. The transaction is a conversion of options booked by the airline's parent company WestJet and will increase WestJet Encore's fleet to 45 Q400 aircraft.

Based on the list price for the Q400 aircraft, the transaction is valued at \$293 million US.

"Bombardier's Toronto-built Q400 turboprop airliner has allowed us to expand from our Western Canada base to more and more communities from coast to coast across Canada and into the U.S. and welcome more guests to experience WestJet's hospitality," said Ferio Pugliese, President, WestJet Encore. "These nine new superb Q400 aircraft will continue to grow our network."

"In just three years WestJet Encore's operations have grown from two Q400 aircraft serving just two cities, to 28 aircraft serving 36 destinations in Canada and the U.S. With this order, WestJet Encore has 17 aircraft still to be delivered which will allow further expansion of the airline's network," said Kevin Smith, Vice President, Regional Aircraft, Bombardier Commercial Aircraft. "This continuing build-up of WestJet Encore's fleet is a strong testimonial to the Q400 aircraft's economics, reliability, flexibility and passenger appeal."

About the Q400 Aircraft

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

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

The Q400 aircraft family includes over 60 owners and operators in almost 40 countries. The worldwide fleet has logged more than 6.9 million flight hours and has transported more than 429 million passengers. Long recognized as a high-value asset by operators, the Q400 aircraft is now also attracting growing interest from the leasing community.

Bombardier has recorded firm orders for a total of 556 Q400 aircraft.

About Bombardier

Bombardier is the world's leading manufacturer of both planes and trains. Looking far ahead while delivering today, Bombardier is evolving mobility worldwide by answering the call for more efficient, sustainable and enjoyable transportation everywhere. Our vehicles, services and, most of all, our employees are what make us a global leader in transportation.

Bombardier is headquartered in Montréal, Canada. Our shares are traded on the Toronto Stock Exchange (BBD) and we are listed on the Dow Jones Sustainability North America Index. In the fiscal year ended December 31, 2015, we posted revenues of \$18.2 billion. News and information are available at bombardier.com or follow on Twitter @Bombardier

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Source: Epicos, Bombardier Commercial Aircraft