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Malaysia: Defence Budget and Future Procurements



According to official estimations provided by the Ministry of Finance, the amount allocated in defence in 2016, will reach 17.3 billion ringgit (RM) (approximately \$4.5 billion), significantly decreased when compared to the 17.7 billion RM (approximately \$4.6 billion) that were allocated in 2015. With this amount Malaysia is among others, planning

to procure six Littoral Combatant Ships, Very Short Range Air Defence weapon systems, armoured vehicles and an A-400M Atlas transport aircraft. Malaysian army will also procure Unmanned Aircraft Systems (UAVs) that will further improve its Intelligence, Surveillance and Reconnaissance capacity.

It should be noticed that defence budget does not include the funds allocated to the Malaysian police and the Malaysian Maritime Enforcement Agency (MMEA) – the country's equivalent of a coast guard. In 2016, the MMEA will receive 864 million RM (approximately \$222.6 million). A fraction of this amount will be allocated to the acquisition of Offshore Patrol Vessels and patrol boats. An additional of RM13.1 billion (approximately \$3.4 billion) will be spend to enhance the safety and security within the country as well as to reduce crime rate.

Malaysian Ministry of Defence allocates approximately 20% of the total budget to the procurement of new equipment. One of the aspects that should be taken into consideration when examining the country's procurements is that the Malaysian government link them to its wider aspirations to develop the Malaysian defence industry therefore exporters should meticulously review the government's offset regulations before bidding for a contract.

Additionally, it is worth mentioning that the Malaysian armed forces are rather underequipped and that is why several analysts believe that the country's Ministry of Defence should push for more procurement funds in the years to come.

In the last five years, Malaysia mainly procured ships and aircraft. It is indicative that for the period 2010-2015 these two categories accounted for 68% of the total amount allocated to the purchase of defence equipment, while the countries from which equipment originated where Germany, Spain and France.

Kyriazis Vasileios

Epicos Newsletter Head Editor

Malaysia: Aerospace and Defence Industry



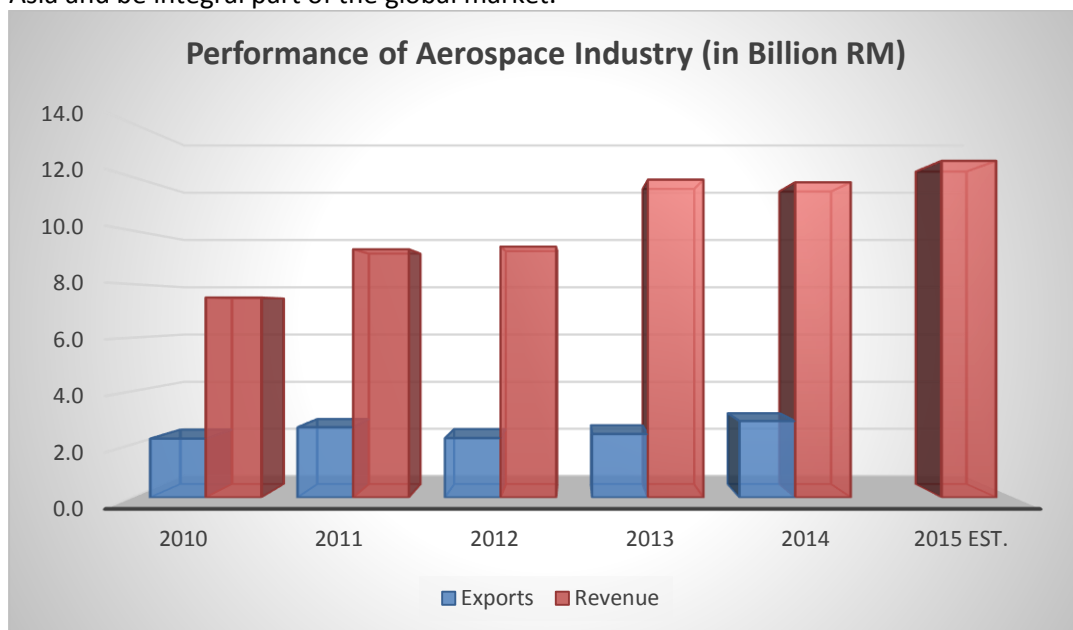
The majority of Association of Southeast Asian Nations (ASEAN) invest in building their own Aerospace and Defence (A&D) industries, mainly through channelling fast-growing military budgets to develop local expertise and competencies. Malaysia is not an exception, as the building of a reliable and viable A&D industry is a long-term economic as well as security goal. Nevertheless,

it should be stressed that the local defence industrial base is mainly characterised by low technology capabilities (concentrated in areas such as repair and maintenance) and by the reliance Malaysian companies have on strategic partnerships that have been shaped with international OEMs. Under this context several companies are already involved in joint ventures with foreign companies for shipbuilding and for the assembly of armoured and military vehicles.

In order to further boost the capabilities of the local defence industry, Malaysian authorities inaugurated the Malaysian Defence & Security Technology Park (MDSTP). MDSTP is targeted to exclusively provide the necessary facilities and infrastructure for the research & development, production of equipment and parts, maintenance repair and overhaul and other technical related services related to the defence and security industry.

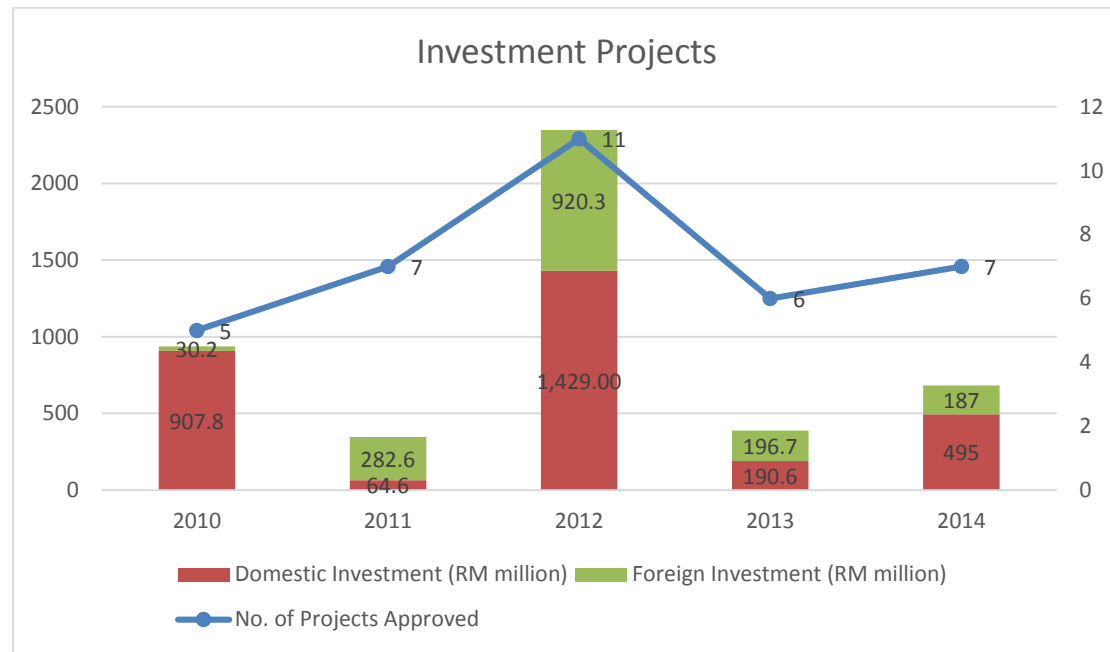
Malaysian Aerospace industry is changing from being small and domestically focused, into a globally recognized industry. Currently Malaysian Aerospace industry is mainly active in four sectors, namely MRO, Aero-Manufacturing, Systems Integration and Engineering & Design.

The National Aerospace Blueprint in 1997 provided a roadmap for the local Aerospace industry and triggered its development. The “National Aerospace Industry Blueprint 2030” was launched on 17 March 2015 and actually was the follow-on of the first Blueprint and outlines the country’s plans to develop the most important aerospace industry in South East Asia and be integral part of the global market.



Source: <http://www.miti.gov.my/index.php/pages/view/2493>

In 2014, there were 159 companies active in the aerospace sector with a total revenue reaching 11.8 billion RM (approximately \$3 billion) and provided a total of 19,500 jobs, of which 8,600 was in manufacturing sub-sector, 9,900 in MRO sub-sector and 1,000 in other sub-sectors. Additionally, in 2014, exports of aircrafts and associated equipment & parts amounted to 2.9 billion RM (approximately \$753.8 million).



Year	Projects Approved	Domestic Investment (RM million)	Foreign Investment (RM million)
2010	5	907.8	30.2
2011	7	64.6	282.6
2012	11	1,429.00	920.3
2013	6	190.6	196.7
2014	7	495	187

Source: <http://www.miti.gov.my/index.php/pages/view/2493>

For the period 2010-14, 36 investment projects were carried out in the aerospace sector with a cumulative investment amount of 4.7 billion RM (approximately \$1.2 billion). From this amount, 1.6 billion RM (approximately \$417.2 million) came from foreign sources, while the remaining 3.1 billion RM (approximately \$808.5 million) from domestic.

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](#)

Head-mounted displays (HMDs) or Augmented Binoculars for Future Soldier and Homeland Security applications



A company with extensive experience in providing customized cutting edge solutions in the field of information technology, telecommunications and image processing, is proposing the development of smart Head-mounted displays (HMDs) to be used in several Future Soldier and homeland security applications. The proposed HMDs, as wearable devices, will use augmented reality technology to render see-through images or video, imposed onto a real world view, thus supporting Future Soldier operations.

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

Mail at: a-kintis@epicos.com

Development of a CCTV Surveillance and Biometrics Access Control System for Homeland Security and/or Military Applications



A company active in the fields of video technology and biometrics-based entry control is proposing the development of a CCTV Surveillance and Biometrics Access Control System for Homeland Security and/or Military applications. This system will be based on a combination of legacy sub-systems already developed and fielded in several customers but it could also include the latest advances in video surveillance and biometrics-based entry control technologies.

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

Mail at: a-kintis@epicos.com

News from our A&D Business Network



NAVANTIA Shortlisted for the Design of the Australian Future Frigate



The Government of Australia announced on 18th April that Navantia has been shortlisted, with two other European companies, for the adjudication of the program of 9 frigates, which contract is foreseen to sign in 2018 and the beginning of the construction in 2020. This advertisement has been realized in the frame of the Strategic Plan of the Naval Construction, and Navantia will compete with Fincantieri and BAE Systems.

The Prime Minister of Australia, Malcolm Turnbull and the Defense Secretary, Marise Payne, have announced Navantia's preselection for the following phase of the program of the future frigates. The program consists of a total of nine units that would be built in Adelaide (Australia), where Navantia already has got an important presence in the program of three destroyers AWD, supporting the construction and tests of them.

Navantia was already contracted in 2014 to carry out design studies for the new frigates, which results, proving the viability of the platform F-100 for the future program of frigates, have been very important for Navantia's selection as potential designer. Navantia's alternative means a line of continuity with the program AWD, so much from the point of view of product (communality), as industrial, with the processes introduced by Navantia in Adelaide's shipyard.

Navantia's selection, after the announcement of preferred tenderer in the program of construction of 2 AOR, is an important milestone for the future of Navantia in Australia.

The SEA 5000 program for the future frigates is the most relevant surface naval program in the history of Australia. For Navantia, it means presence and consolidation in the country for the next 25 years, as well as a great potential for future opportunities.

For Further Information [Click Here](#)

AUSTAL Selected as Preferred Tenderer for Pacific Patrol Boat Replacement Project



Austal Limited (Austal) is pleased to announce it has been awarded preferred tenderer status by the Commonwealth of Australia for the Pacific Patrol Boats Replacement (PPBR) Project. The PPBR project involves the construction of up to 21 steel-hulled patrol vessels and through life sustainment over 30 years in a total Government expenditure of up to \$900 million. Austal's share of the PPBR program will include the construction of the vessels and short to medium term maintenance components of the project.

Austal will now work with the Commonwealth of Australia to complete documentation and finalise the contract over the coming weeks. Full details will be provided to the market when the contract is finalised.

Austal plans to construct the Pacific Patrol Boats in its shipyard in Henderson, WA, with through-life support to be performed at Austal's existing facility in Cairns, Queensland. The vessels will replace the existing Pacific Patrol Boat fleet, which is approaching the end of its service life, and will assist Pacific Island countries to continue to take an active part in securing their own extensive Exclusive Economic Zones.

Austal Chief Executive Officer David Singleton said: "I am delighted that we have been selected as preferred tenderer, adding to our long history of constructing patrol boats at our shipyard in Henderson, Western Australia.

"Austal has delivered Australia's entire border patrol capability – comprising 30 vessels delivered over the past 17 years – and we look forward to extending this by constructing and servicing vessels that will be used by many of our neighbours in the South Pacific.

"Construction of the Pacific Patrol Boats also extends Austal's shipbuilding capability into steel-hulled vessels, which will be important for the future construction of Offshore Patrol Vessels.

"This project will add to our existing work at our Henderson shipyard, where two High Speed Support Vessels are being constructed for the Royal Navy of Oman this year as well as two additional Cape Class Patrol Boats."

About Austal

Austal is a global defence prime contractor and a designer and manufacturer of defence and commercial ships. For more than 27 years Austal has been a leader in the design, construction and maintenance of revolutionary ships for Governments, Navies and Ferry operators around the world. More than 255 vessels have been delivered in that time.

For Further Information [Click Here](#)



Rohde & Schwarz to Provide Royal Malaysian Navy with Leading-edge, IP-based, Integrated Communications System

Rohde & Schwarz has been awarded a contract by Boustead Naval Shipyard Sdn. Bhd. (BNS) to equip six vessels for the Royal Malaysian Navy with its full turnkey integrated communications system (ICS). The core component is R&S NAVICS, a comprehensive technology for next generation naval communications. The contract is part of a series of international successes for Rohde & Schwarz that include projects in the UK, Australia, the Netherlands and Spain.

The Royal Malaysian Navy (RMN) has selected Rohde & Schwarz to provide state-of-the-art, IP-based communications systems for its Second Generation Patrol Vessel - Littoral Combat Ships (SGPV-LCS). BNS is in progress of building the vessels in its shipyard in Malaysia based on the GOWIND class design. The project is being implemented with local Malaysian integration capability and life time support will be handled by local Rohde & Schwarz experts. "Adopting IP-based technologies is an important step for modern naval communications," says Admiral Ahmad Kamarulzaman, Chief of Navy, Royal Malaysian Navy, "because it meets both today's and tomorrow's diverse onboard requirements. It also keeps us in step with the latest digital computing and communications technology. We are proud to bring this state-of-the-art equipment onboard our latest vessels. With Rohde & Schwarz Malaysia as our contractual partner, we can look forward to a long-lasting cooperation and are confident of achieving the local industrialization targets. This strategy will be instrumental in the lifetime support of this project with the Royal Malaysian Navy."

R&S NAVICS is the core component for the next generation of highly integrated communications systems for naval applications. The innovative solution offers pioneering technology as well as user friendliness. Operation of the technically complex system is kept uncomplicated through the use of an intuitive graphical user interface (GUI). With regard to operating procedures and icons, the intuitive user interface for the voice terminals with touchscreen is based on modern smartphones. Cutting-edge display technology provides good readability. The softkey type is designed for use under rough environmental conditions, such as those which can prevail on deck or in the machine room. The R&S NAVICS, a fully VoIP-based switching system, connects on-board voice terminals and all other internal and external communications subsystems via a standardized and redundant IP network. For external communications Rohde & Schwarz supplies latest generation software defined VHF/UHF and HF transceivers from the R&S M3SR family of radios (R&S Series4400 and R&S Series4100). The system also integrates the internal communication subsystems like broadcast and alarms, ship's telephony, wireless headsets and other subsystems. The system also includes a Rohde & Schwarz onboard COMINT/C-ESM solution.

For Further Information [Click Here](#)

Source: Epicos, Rohde & Schwarz

ST ENGINEERING's Aerospace Arm Secures New Contracts Worth \$443m in 1Q2016

Singapore Technologies Engineering Ltd (ST Engineering) today announced that its aerospace arm has secured new contracts worth \$443m in the first quarter (1Q) of 2016, for projects ranging from airframe maintenance and cabin interiors, to engine wash, and component repair and overhaul.

The 1Q2016 value has taken in Elbe Flugzeugwerke's new orders for the first time, following the completion of the additional equity interest in the Dresden-based company in February this year.

The total contract value includes the recently announced VIP aircraft interiors contracts, and the four pilot training contracts awarded by the various airlines.

New contracts

Included in the 1Q2016 contracts are line and heavy airframe maintenance agreements for various customers, as well as cabin interior modifications for both commercial airlines and VIP customers.

For component support, the aerospace sector secured several ATR landing gear contracts from customers in the Asia Pacific region. It has, at the same time, secured a long term contract to support a European customer's Q400 components.

Multiple contracts have also been sealed with customers in Asia Pacific, Europe and the US for EcoPower® engine wash services.

Redeliveries for airframe, component and engine MRO

The aerospace sector redelivered a total of 524 aircraft for airframe maintenance and modification work in 1Q2016. This included cabin interiors modifications for both VIP aircraft and commercial airliners, an A380 cabin overhaul for a European customer, as well as Virgin Galactic's Boeing 747-400, upon completion of a series of D-level heavy maintenance checks. Additionally, a total of 9,742 components, 28 landing gears and 30 engines were processed, while 1,548 engine washes were conducted for both commercial and military customers.

Capabilities development

On aircraft capability, the aerospace sector's airframe facility in Guangzhou received maintenance organisational approval from the Maldives Civil Aviation Authority for Boeing 767 aircraft, extending the facility's range of maintenance capabilities.

Spotlighting freighter conversions, ST Aerospace received the Supplemental Type Certificates from both the Civil Aviation Administration of China and the European Aviation

Safety Agency, for the 15-pallet 757-200SF freighter conversion, on top of a similar certification obtained from the US Federal Aviation Administration in 2015.

On component MRO, the aerospace sector continued to add new capabilities to support the Boeing 787 operators. The newly added capabilities cover electrical systems and nacelle components.

Separately on engine MRO, ST Aerospace continues to build its in-house engine accessory testing capabilities in Xiamen.

The above developments are not expected to have any material impact on the consolidated net tangible assets per share and earnings per share of ST Engineering for the current financial year.

ST Aerospace (Singapore Technologies Aerospace Ltd) is the aerospace arm of ST Engineering with a revenue of \$2.09b in FY2015. Operating a global MRO network with facilities and affiliates in the Americas, Asia Pacific and Europe, it is the world's largest commercial airframe MRO provider with a global customer base that includes leading airlines, airfreight and military operators. ST Aerospace is an integrated service provider that offers a spectrum of maintenance and engineering services that include airframe, engine and component maintenance, repair and overhaul; engineering design and technical services; and aviation materials and asset management services, including Total Aviation Support. ST Aerospace has a global staff strength of around 8,000 employees worldwide. Please visit www.staero.aero.

ST Engineering (Singapore Technologies Engineering Ltd) is an integrated engineering group providing solutions and services in the aerospace, electronics, land systems and marine sectors. Headquartered in Singapore, the Group reported revenue of \$6.34b in FY2015 and ranks among the largest companies listed on the Singapore Exchange. It is a component stock of the FTSE Straits Times Index and MSCI Singapore. ST Engineering has about 23,000 employees worldwide, and over 100 subsidiaries and associated companies in 46 cities across 24 countries. Please visit www.stengg.com for more information.

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Source: Epicos, Singapore Technologies Aerospace Ltd

Indonesia's Garuda in 4bn Airbus A330 order

Airbus said Tuesday that Indonesian carrier Garuda had signed a firm purchase order for 14 of its new generation wide-bodied A330-900neo airliner for \$4 billion.

The deal, sealed in London for the re-engined version of Airbus' popular A330 airliner, is designed to bolster Garuda's expansion.

Airbus said the order, for delivery from 2019, replaces and extends an existing one for seven of the earlier version A330-300 planes.

"We are delighted to welcome Garuda Indonesia as a new customer for the A330neo," Airbus Chief Operating Officer Tom Williams said in a statement, underlining benefits including significantly lower fuel consumption, lower maintenance costs and extended range capability.

Airbus added the deal was a milestone in a partnership stretching back more than 30 years.

The parties signed the contract at a ceremony in London in the presence of Indonesian President Joko Widodo and British Prime Minister David Cameron.

Airbus said Garuda intends to use the A330neo "to develop its medium and long haul network, with the aircraft offering cutting edge technology along with more efficient operations."

Arif Wibowo, Garuda CEO, said the deal was a part of a long-term market strategy.

"Both Garuda Indonesia and Airbus fully understand the aim of the deal as a long-term strategy to win the global challenge," said Arif, who said the carrier is targeting "the most modern, comfortable and excellent air travel service to all customers" via sustained expansion.

He said the new Airbus plane "will support us to compete better in the industry."

The A330-900neo is equipped with latest generation Rolls-Royce Trent 7000 engines, cutting fuel consumption by 14 percent, with Airbus lauding it as the world's most cost efficient, long range widebody aircraft.

Airbus expects to start making first deliveries of the new model from the fourth quarter of next year.

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

Delayed Take-off for China's own Regional Jet

China's home-grown regional jet should have made its first commercial flight weeks ago, but the ARJ21 has still not flown any fare-paying passengers, dealing yet another setback to the country's ambitious plans for domestically produced planes.

Chengdu Airlines received the aircraft from manufacturer the Commercial Aircraft Corp. of China (COMAC) in November, already years behind schedule, and it made several "demonstration" flights without passengers in January.

It was scheduled to ferry passengers from its home base in southwest China to commercial hub Shanghai on February 28, according to media reports, but has yet to do so. Neither the jet's maker nor the airline were willing to say why.

"The Civil Aviation Administration of China is still doing preparation work for the first flight, so maybe it hasn't finished," a COMAC spokesman told AFP, referring to the government regulator. "The airline and CAAC have the final say."

A CAAC spokeswoman referred questions about the issue to the airline.

Chengdu Airlines, whose fleet consists of 21 A320 aircraft made by European consortium Airbus and the single ARJ21, declined to give a date. "There is no exact time," a spokesman said.

When the ARJ21 -- which stands for Advanced Regional Jet for the 21st century -- finally takes to the skies for commercial flights, it will be the culmination of a programme that has so far taken 14 years.

First formally approved by the government in 2002, journalists were shown the body of the plane five years later, when officials confidently predicted deliveries in late 2009.

Some Chinese see it as their patriotic duty to fly on the homegrown aircraft.

"Support the domestically made plane! I would take it!" said an online posting.

But first COMAC must win over customers and passengers about the ARJ21's quality and reliability. The aircraft still lacks the crucial US Federal Aviation Administration (FAA) certification that would allow it to fly in US skies.

Some potential passengers expressed worries. "It's not that I am unpatriotic. To be honest, I don't dare take the plane. It's still Boeing and Airbus (for me)," said an online post by Tang Kanyang, who identified himself as a lawyer.

- A competitive threat? -

The plane can seat 78-90 passengers and has a range of 2,225-3,700 kilometres (1,380-2,294 miles). State-owned COMAC has claimed more than 270 orders for the ARJ21, mainly from domestic customers, and has bigger plans too.

In November, it rolled out the C919, China's first domestically developed narrow-body passenger plane, the next step up in size. Officials said at the time that it would make its first test flight this year, though reports say it might also be delayed.

The Shanghai-based company will partner with US aircraft maker Boeing to set up an interior completion centre in China, and aims to produce an even larger wide-body jet in cooperation with Russia's United Aircraft Corp. whose products include the Sukhoi Superjet 100.

The ARJ21 was also a no-show at China's major show for corporate jets in Shanghai last week, though it does have a business version and could potentially compete against some of the foreign brands that were displayed on the Hongqiao Airport runway.

COMAC restricted itself to display miniatures of the ARJ21 at Asia's premier air show in Singapore in February.

"They (Chinese officials) are looking at these market segments thinking: How can we do what Boeing and Airbus have done?" said Jeff Lowe, managing director of aviation services provider Asian Sky Group.

But most manufacturers do not view the COMAC plane as a competitive threat yet, even though the Chinese commercial aircraft market is already Asia's largest and crucial to their plans over the next decades.

"They have a product. We have ours," said Fernando Grau, director of marketing and product strategy for executive jets of Brazil's Embraer in China.

The ARJ21 is comparable in seating capacity to Embraer's E170 and E175, parts of a family of aircraft with more than 1,100 deliveries.

Foreign jet makers can offer a far more extensive product line and industry executives said COMAC was seeking to develop what took other manufacturers decades to do.

"Currently, we don't see anything that competes with us in terms of a traditional business jet," said Scott Neal, senior vice president for worldwide sales and marketing for Gulfstream of the United States. "It's taken us 60 years to gain the position we have and the expertise in designing and building high-technology, high-performance corporate aircraft."

Asked whether China could one day field a rival, he said: "Time will tell."

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

Orbital ATK Awarded Five-Year Contract to Supply Non-Standard Ammunition to Department of Defense

Orbital ATK, Inc., a global leader in aerospace and defense technologies, announced today that it has been awarded an Indefinite Delivery Indefinite Quantity (IDIQ) contract award with the U.S. government to supply non-U.S. standard ammunition (NSA) and mortar weapons systems for the Department of Defense (DOD) in support of international allies. The selection of Orbital ATK as a provider to the NSA program demonstrates the company's expertise in program, technical and supply chain management, and is complemented by a worldwide team of proven suppliers.

Orbital ATK received orders of approximately \$300 million under the previous three-year NSA IDIQ contract, which expired in December 2015. The company has been the leading supplier to the NSA program since its inception in 2008, providing 600 million units of NSA products to our country's allies. This new IDIQ contract comes with an initial award of approximately \$20 million.

"Orbital ATK is pleased to continue providing non-standard ammunition to the United States Army for use in strategic geographic theaters throughout the world," said Kent Holiday, Vice President and General Manager of Orbital ATK's Small Caliber Systems division of the Defense Systems Group. "The strength of our team is our worldwide supply chain that provides affordable, high-quality ammunition to our allies."

Orbital ATK is the operator of the U.S. Army's Lake City Army Ammunition Plant in Independence, Missouri, where it is the largest manufacturer of small caliber ammunition for the U.S Department of Defense.

Orbital ATK Defense Systems Group is an industry leader in providing innovative and affordable ammunition, precision and strike weapons, electronic warfare systems, and missile components across air-, sea-, and land-based systems.

About Orbital ATK

Orbital ATK is a global leader in aerospace and defense technologies. The company designs, builds and delivers space, defense and aviation systems for customers around the world, both as a prime contractor and merchant supplier. Its main products include launch vehicles and related propulsion systems; missile products, subsystems and defense electronics; precision weapons, armament systems and ammunition; satellites and associated space components and services; and advanced aerospace structures. Headquartered in Dulles, Virginia, Orbital ATK employs approximately 12,000 people in 18 states across the United States and in several international locations. For more information, visit www.orbitalatk.com.

Source: Epicos, Orbital ATK