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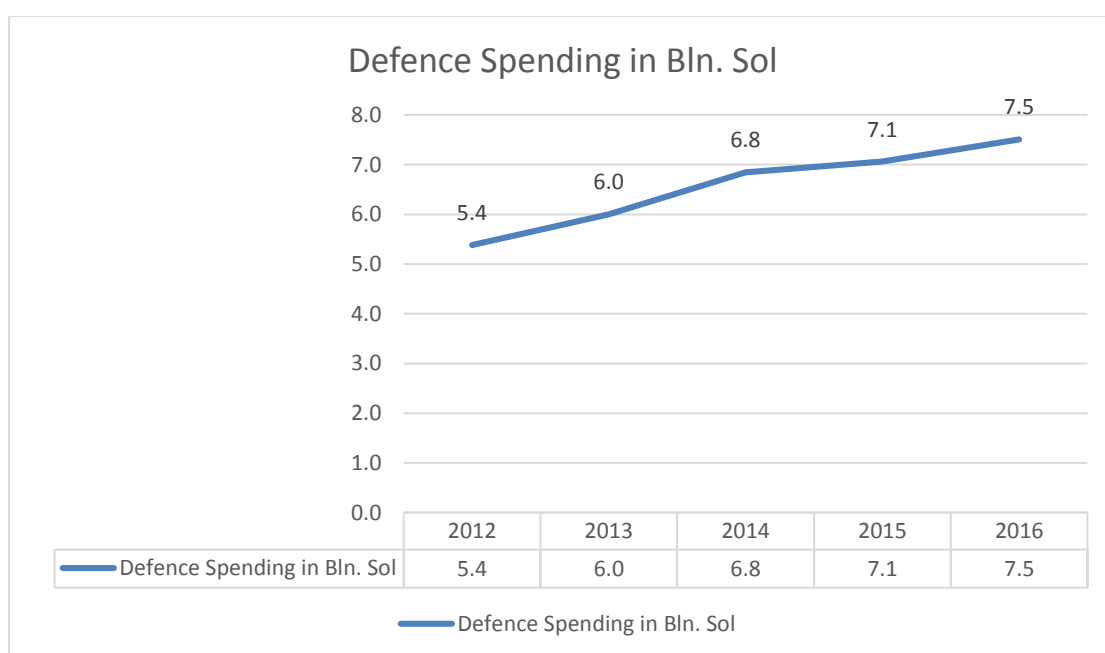
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**Peru: Defence Budget, Past and Future Procurements**



Peru has initiated a comprehensive military modernisation program that seeks to significantly update the country's current defence capabilities. In order for this to happen, Peruvian defence expenditure registered a growth rate of 39.5%, increasing from 5.4 billion Peruvian Sol -PEN- (approximately 1.6 billion US dollars) in 2011 to 7.5 billion PEN (approximately 2.2 billion US dollars) in 2015. The ongoing modernisation program, as well as the need of Peru to tackle the drug trafficking, illegal logging and illegal mining and the country's aspiration to participate in international peace keeping operations is expected to determine the defence budget in the years to come.



Source: <https://www.mef.gob.pe>

Despite the fact that Peru, still maintains a relatively small military force, due to its vibrant modernisation program is projected to be one of the more significant markets in Latin America in the fore coming years. Additionally, it is important to mention that a number of key modernisation programme milestones have already reached in all branches of defence forces. The country does not have a defence industry capable of providing a wide range of equipment -especially when it comes to the manufacture of advanced platforms and systems- this is the reason why the majority of new defence assets are procured from abroad. Peru, buys defence equipment from a wide range of suppliers.

Under this context, in June 2016, Thyssenkrupp Marine Systems received a service order worth around €40 million from the Peruvian naval shipyard SIMA, to provide consulting during the planning and realization of extensive modernization work on 4 HDW 209/1200 class submarines over a period of seven years. Among other things Thyssenkrupp Marine Systems will perform engineering and technical services such as cutting and welding on the

submarines and will make specialists available to provide local support. The submarines were built in the early 80s at the Thyssenkrupp Marine Systems shipyard (at that time HDW – Howaldtswerke-Deutsche Werft GmbH) and since then form the backbone of the Peruvian submarine fleet.

Additionally, the Korean company Dae Sun Shipbuilding & Engineering Co., Ltd. won a contract reaching 80 million US dollars to export shipbuilding technology to SIMA, Peru's state-run shipyard, for the production of two landing platform docks.

The modernisation of Peru's Navy is expected to continue. The main driving forces behind this are the age of the fleet, as the average age of the vessels currently in operation exceeds 35 years and the aspiration of Peru's authorities to participate in international missions and to protect the country's interests in Antarctica.

Regarding the country's air force, on November 6<sup>th</sup> 2012, Korea Aerospace Industries (KAI) and the Peruvian Air Force signed a contract for 20 KT-1s (10 KT and 10 KA versions) including offset and technologies transfers. The amount of the contract is approximately US\$208 million. KAI will provide the first 4 airplanes and the rest will be assembled at SEMAN (Maintenance air wing of the Peruvian Air Force).

Additionally, on March 27, 2015 in an official ceremony, Italian company Alenia Aermacchi's delivered the first of the 4 C-27J Spartan aircraft Peruvian air force ordered. The deliveries of the other three aircraft will end in 2017. Alenia Aermacchi and the Peruvian Air Force signed two contracts: the first in December 2013, for the supply of two C-27Js and the second, in December 2014, for the acquisition of two further aircraft. The total amount of these contracts added to 240 million US dollars. Peru selected the C-27J Spartan due to its ability to operate safely in all environmental conditions in Peru and to land on a large number of airfields, including the unprepared strips in the Andes.

Additionally, the Peruvian army will need to further modernise its inventory as it is the branch that has not particularly benefited by the modernisation process. Peruvian army need to modernise or replace its main battle tanks, as it still rely on an ageing fleet of T-55s, as well as its wheeled and tracked Armour Personnel Carriers (APCs).

Kyriazis Vasileios  
Epicos Newsletter Head Editor

## Peru: Defence industry Current Capabilities and International Strategic Alliances



The majority of Latin American Countries invest in building their own Aerospace and Defence (A&D) industries, mainly through channelling fast-growing military budgets to develop local expertise and competencies. Peru is not an exception, as it has recently introduced an offset policy to ensure the extract of the full value from the expected increase in military budget. Additionally, local authorities, have promoted the creation of cooperative schemes with foreign partners, in order to further enhance the technological level of the local defence industry. Currently, Peru has domestic capacity to produce light weapons, body armour, ammunition, armoured vehicles, coastal patrol boats and other types of vessels, as well to provide Maintenance Repair and Overhaul (MRO) services for certain types of aircraft.

Furthermore, Peru has signed government-to-government partnerships with other emerging and/or established defence producers. Under this context, the Republic of Korea and Peru signed a Memorandum of Understanding (MoU) on the exchange of aeronautical technology. According to the Peruvian Air Force, the agreement of the technology transfer for the acquisition of KAI KT-1, will allow the local construction of the fighter aircraft in a period of approximately ten years. The agreements also include the exploration of export sales in the region. Additionally, according to the Air Force of Peru, the country and the Republic of Korea will also exchange their experiences in the areas of operations, logistics, training, personnel, and accident prevention. The MoU was signed during the official visit of the deputy chief of the Korean Air Force Major General HyngChul Kim to Lima.

Among others, the delegation of the Republic of Korea visited the facilities of the SEMAN (Maintenance air wing of the Peruvian Air Force), where the majority of the country's KT-1s will be assembled. On November 6th 2012, KAI and the Peruvian Air Force signed a contract for 20 KT-1s (10 KT and 10 KA versions) including offset and technologies transfers. The amount of the contract is approximately US\$208 million. KAI will provide the first 4 airplanes by 2014 and the rest will be assembled at SEMAN.

The core competencies of Peru's shipbuilding industry are concentrated under the company Servicios Industriales de la Marina S.A. known as SIMA, which is certified under the ISO 9001, OHSAS 18001 and ISO 14001 certifications. SIMA mainly manufactures missile frigates with a displacement of 2400 tons, high-speed vessels, coastal patrol boats and logistical support river boats. Currently, SIMA has extended its activities in the fields of weapons, sonars, radars, automated control systems, radio systems and electric transmission lines as well as to the manufacture and calibration of periscopes.

As it is already mentioned Peru has the capacity to produce small arms and ammunition, mainly through the company Fábrica de Armas y Municiones del Ejército (FAME S.A.C.). FAME in the last couple of years, has scored a number of important achievements, forming

strategic alliances with several foreign companies. On September 1, 2016, the official opening of a separate space in FAME's army plant in Lima intended for the assembly and repairs of pistols from the Czech company Česká Zbrojovka a.s. took place. The Czech company supplied advanced equipment, tools and instruments for the construction of the plant and also trained the technical personnel that will be involved in the production and assembly of pistols.

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...

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### Design and Development of a UAV Nuclear Reconnaissance System



A large company with significant experience in the development and production of chemical defense instruments and nuclear reconnaissance systems, is proposing collaboration with a company specializing in the design and production of Unmanned Aerial Vehicles in order to develop a UAV nuclear reconnaissance system. Fields of application could be: reconnaissance of widely contaminated areas, localization of single radiation sources, nuclear accidents or atomic explosions.

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

Mail at: [a-kintis@epicos.com](mailto:a-kintis@epicos.com)

### Development of composite twin smart container for the transport and storage of new generation missiles



A leading company in the development and manufacturing of composite products for ballistic protection and structural applications, is proposing the development of a smart composite twin container for transport and storage of new generation missiles.

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

Mail at: [a-kintis@epicos.com](mailto:a-kintis@epicos.com)

*News from our A&D Business Network***INDRA Will Provide Air Traffic Control Radars to Danish Royal Air Force****indra**

In an international public tender run by the Danish Ministry of Defense, via the Danish Defense Acquisition and Logistics Organization (DALO), Indra has been awarded the contract to provide radars to support air traffic management at the country's Royal Air Force bases. The company will provide three systems, each equipped with a primary radar (PSR) and a secondary radar (MSSR). These systems will bolster airspace surveillance and air operations at the Skrydstrup, Karup and Aalborg airfields.

Indra was the only company to meet the client's requirements, in a tender that saw the world's leading manufacturers compete with each other. The Indra PSR primary radar offers high operational ratios thanks to numerous features, including its ability to cross-select equipment from the main and backup chains in the event of element failure. Meanwhile, the secondary radar (Indra MSSR) is a mature and latest generation product that can operate in cluster mode, working in coordination with other radars to avoid repeatedly interrogating the same aircraft. This makes it highly effective in regions of high traffic density, such as in the north of Europe.

The contract sees the company extend its global leadership in civil aviation traffic to the military field. The company has deployed air traffic technology at 4,000 facilities in 160 countries, making it one of the world's leading radar providers.

In military air traffic management, Indra has run major projects such as providing mobile air traffic management systems to the Royal Australian Air Force (RAAF), ensuring that these military air traffic controllers have access to first-class airspace surveillance and air traffic control capabilities. Indra has also strengthened its position in the north of Europe, a market that demands the most advanced technologies and where Indra has been a driving force behind infrastructure modernization in several countries. For example, Indra developed and deployed the systems that manage air traffic in the skies over Germany and Poland; it supplied air traffic management systems to Lithuania and Ukraine; it deployed, jointly with Alcatel-Lucent, the system used by Latvia to manage maritime traffic on the Baltic coast; provided communication systems to shipyards; and lead the development of the Eurofighter Simulator, among others. The company also has offices in Germany and Norway, with significant technological capabilities.

**About Indra**

Indra is one of the leading global consulting and technology companies and is a technological partner to its clients in key business operations around the world. It offers a comprehensive range of proprietary solutions and cutting-edge services with optimal technological

capabilities, supported by a corporate culture of reliability, flexibility and adapting to client requirements. 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 addresses the challenges posed by digital transformation. In 2015 it posted revenues of 2.85 billion euros and had 37,000 employees, a local presence in 46 countries and projects in more than 140 countries.

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## Leonardo-Finmeccanica and Polska Grupa Zbrojeniowa Sign a Long-Term Strategic Partnership Agreement in the Defence and Security Market



Leonardo-Finmeccanica, one of the top ten global players in Aerospace, Defence and Security and Italy's leading high technology company, and Polska Grupa Zbrojeniowa S.A. (PGZ), one of the largest defence companies in Central Europe and the biggest in Poland, have signed a Letter of Intent (LOI) for a long term strategic partnership in the Defence and Security market. The LOI has the purpose of strengthening the competitive position of both companies on the international market.

Under the agreement, Leonardo will support PGZ with its technology and products, and PGZ will cooperate with Leonardo on industrial and logistic support activities. The LOI establishes a significant technology transfer to PGZ with the aim of generating significant high-technology activities and job creation for the two companies in the years to come. In Poland Leonardo has already made significant investment in the rotary wing sector following the acquisition of PZL-Swidnik.

"The Letter of Intent signed with Leonardo – Finmeccanica enables us to examine and define areas of the possible industrial cooperation in terms of the wide range of products fulfilling the Polish and the export market requirements" - said Arkadiusz Siwko, CEO of Polska Grupa Zbrojeniowa S.A. - "We will seek to exchange know-how and technological capabilities, so we can cooperate in terms of research, development and production" – added Siwko.

"This agreement defines a new era in the industrial relationship between Italy and Poland in the Defence and Security sector. I am convinced that in joining forces we will be able to offer the best solutions for our customers in terms of performance, operating costs and maintenance capability" - said Mauro Moretti, CEO and General Manager of Leonardo.

The agreement identifies a wide range of industrial cooperation between both companies. PGZ and Leonardo announced their intention to begin cooperating in the fields of rotary wing platforms and services, land systems, naval systems, unmanned aircraft, fixed wing systems and services, as well as space technologies. By virtue of this agreement, Leonardo and PGZ also announced that they will examine and identify areas of possible industrial cooperation for the wide range of products meeting Polish and export market requirements. Leonardo and PGZ will seek to exchange know-how and technological capabilities as well as identify areas in which they can collaborate in research and development, production and after sales support.

In the helicopter sector, the agreement foresees a wide scope of cooperation between Leonardo and PGZ, including collaboration to offer joint programs for the domestic and the international market. In the military trainer segment Leonardo will start to deliver the M-346 aircraft by November 2016. The agreement with PGZ includes the opportunity to extend

activities to simulation and ground based training systems and logistic support for the Deblin Air Base.

Furthermore, according to the LOI, PGZ and Leonardo will evaluate the opportunities for cooperation in the „Miecznik” and „Czapla” programmes for the acquisition of new vessels for the Polish Navy.

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## LORD Corporation Announces Product Qualification for the CH-47 Chinook Improved Vibration Control System

LORD Corporation – a leader in the management of vibration, noise and motion control – has announced product qualification for their Improved Vibration Control System (IVCS) for the Boeing H-47 Chinook helicopter.

Under contract with Boeing since Sept. 2013, LORD has completed all program milestones and has received final qualification approval for the state-of-the-art patented system that controls steady state and transient vibration.

According to Stuart Hartwell, business development manager for LORD Global Aerospace & Defense, this qualification milestone for the twin-engine tandem rotor heavy-lift helicopter represents a major step in bringing significant weight savings to the H-47 platform.

The multiyear qualification effort culminated in late 2015 with installation and final flight evaluation of the production-ready IVCS. IVCS is the H-47 program name for LORD Corporation's proven Active Vibration Control System. The U.S. Army Aviation Engineering Directorate recently completed the final qualification approval, and product deliveries for incorporation into the Boeing CH-47F production line will begin in mid-2016.

The IVCS technology uses accelerometers that measure aircraft vibration levels. A centralized computer processes these signals through a software algorithm that interprets the data and sends commands to force generators located under the pilot seats. These force generators create "anti-vibration" that stops the progression of vibration due to the main rotor, and creates a more comfortable vibration environment for the aircrew. The LORD product is a direct/drop-in replacement for the previously used passive tuned vibration absorber. According to Mike Janowski, Manager of Electromechanical Design at LORD, the IVCS is easily installed using existing mounts on the Chinook aircraft and outperforms the legacy system.

LORD secured the contract through a joint effort of LORD engineering, the U.S. Army Cargo Helicopter Program Office, and Boeing Defense, Space & Security. In addition to providing the system hardware, LORD provided the manpower and resources to flight-test the system to demonstrate performance results.

According to LORD Corporation's Jim Nietupski, Customer Executive, the pursuit of this initiative from LORD began in 2004 with the idea of replacing heavy passive tuned vibration absorbers under the pilot's seat with a new technology that would save weight. After a flight demonstration of the product, which began in 2008 with the Mississippi Army National Guard, and after several years of continued testing with the assistance of the U.S. Army Special Operations Aviation Regiment, the Army decided to pursue a program and selected Boeing to serve as the integrator of this technology.

Throughout its development, the Chinook aircraft has evolved with new technology, gained new capability and has increased in weight. This IVCS technology offers a triple-digit weight savings benefit, which creates a performance buy-back for H-47 Operators. LORD Corporation's system will now be part of the baseline configuration moving forward in 2016, followed by opportunities for retrofit of Special Operation's MH-47G, fielded CH-47Fs, and Foreign Military Sales' H-47 aircraft.

"This IVCS equipment provides state-of-the-art performance and represents a major upgrade to the legacy vibration suppression system on this aircraft," said Hartwell. "As a leader in active vibration control technology, LORD is expanding its business footprint at a critical time in the aviation industry."

LORD has supplied Boeing with vibration control solutions for more than 50 years. In addition to this new product, LORD supplies various aerospace components, including vibration isolators, mounts and elastomeric bearings, to Boeing Defense, Space & Security for the H-47 Chinook, AH-64 Apache, and V-22 Osprey. LORD recently received a 2015 Silver-level Boeing Performance Excellence Award for its quality and delivery performance.

For more information, contact LORD Corporation at +1 877 ASK LORD (275 5673).

For Further Information [Click Here](#)

**Source:** Epicos, Lord Corporation

### **GKN Aerospace and Boeing agree multiple long term contracts**

GKN Aerospace has secured long term agreements (LTA) with Boeing Commercial Airplanes which cover the supply of titanium and aluminium machined parts and subassemblies for the 767, 777, and 787 Dreamliner airplanes, plus new work packages for the 777X.

GKN Aerospace has been manufacturing items covered by a number of these agreements for over ten years, with the new LTA, moving this work into its second decade. Parts supplied will include 787 titanium wing fittings as well as the horizontal stabilizer spars and jack screw assembly, and drag struts for the 777 and 777X. Production will take place at GKN Aerospace's advanced machined structures (AMS) facilities in Amityville, NY and St. Louis, MO.

Mike Grunza, Chief Executive Officer, GKN Aerospace, Aerostructures - North America, said: "We greatly appreciate the confidence Boeing continues to demonstrate in GKN Aerospace as the long term provider of large and complex machined parts and sub-assemblies for their most successful programmes. Through our working partnership with Boeing we have brought our significant machining expertise and capacity to these programmes. This new commitment, through these extended contract agreements, will allow us to plan ahead

effectively, assuring continuity of supply and enabling us to implement process improvements and achieve cost reductions as aircraft production rates continue to ramp up.”

For Further Information [Click Here](#)

**Source:** Epicos, GKN Aerospace

### **Meggitt wins \$18 million ADF weapons simulator contract**

Meggitt PLC, a leading international company specialising in high performance components and sub-systems for the aerospace, defence and energy markets announces that Meggitt Training Systems has been awarded an \$18 million USD contract from the Australian Defence Force’s Capability Acquisition and Sustainment Group. Meggitt will develop, manufacture and install 460 EF88 Steyr assault rifle simulators and 115 SL40 40mm simulated grenade launchers.

“We have supplied, operated and maintained the ADF’s Weapon Training Simulation System since 1999 and this latest weapons simulator award further validates Meggitt’s long-standing strategic partnership with the Australian Defence Force,” said Chris Jordan, Managing Director, Meggitt Training Systems, Australia.

Contract deliveries will take place at 18 locations throughout Australia to support Army, Navy and Air Force training requirements and are expected to begin in the fourth quarter of 2017 and continue through May 2018.

For further information contact:

Meggitt PLC

Richard Cashin, Investor Relations – Tel: 01202 597597

Fiona Greig, Corporate Communications

**Source:** Epicos, Meggitt PLC

## MTU Maintenance and LATAM Airlines Group extend V2500-A5 engine service cooperation by five years

MTU Maintenance, one of the world's leading providers of services for commercial aero engines, has extended its existing cooperation with the LATAM Airlines Group (LATAM) by five years to 2024. The contract covers the maintenance, repair and overhaul of V2500 engines and is a tribute to the long-standing cooperation between the two companies. MTU Maintenance has performed close to 400 shop visits on the TAM Linhas Aereas (now part of LATAM) fleet since 1999. The extended contract expands on this cooperation and includes coverage of engines from the whole group of airlines' fleet.

LATAM is the largest airline group in Latin America and one of the largest in the world in terms of network connections. The group operates a total of 126 A320s and A319s fitted with V2500 engines. It also has a fleet of A321 aircraft.

MTU Maintenance supports all V2500 models and has completed close to 4,200 shop visits on this engine family since 1989. MTU Maintenance is the number one V2500 MRO provider worldwide and had a market share of 37 percent on this engine family in 2015.

### About MTU Aero Engines

MTU Aero Engines AG is Germany's leading engine manufacturer. The company is a technological leader in low-pressure turbines, high-pressure compressors, turbine center frames as well as manufacturing processes and repair techniques. In the commercial OEM business, the company plays a key role in the development, manufacturing and marketing of high-tech components together with international partners. In the commercial maintenance sector, the company ranks among the top five service providers for commercial aircraft engines and industrial gas turbines. The activities are combined under the umbrella of MTU Maintenance. In the military field, MTU Aero Engines is Germany's industrial lead company for practically all engines operated by the country's military. MTU operates a network of locations around the globe; Munich is home to its corporate headquarters. In the fiscal year 2015, the company had a workforce of some 9,000 employees and posted consolidated sales of approximately 4.4 billion euros.

For Further Information [Click Here](#)

**Source:** Epicos, MTU Maintenance

### Jetstar Pacific finalises first direct order with Airbus

Vietnam's Jetstar Pacific Airlines has finalised a purchase agreement with Airbus for 10 A320neo aircraft. The contract follows an MOU announced earlier this year and was signed today in Hanoi by Le Hong Ha, Chief Executive Officer of Jetstar Pacific and Fabrice Brégier, Airbus President and CEO.

The signing took place during the state visit to Vietnam of François Hollande, President of France, and was witnessed by Mr Hollande and Tran Dai Quang, President of the Socialist Republic of Vietnam.

Based in Ho Chi Minh City, Jetstar Pacific is a joint venture between Vietnam Airlines (70%) and the Qantas Group (30%). The order from Jetstar Pacific marks the first direct purchase by the airline from Airbus. The aircraft will join an existing fleet of 12 leased A320 Family aircraft flying with the airline on domestic and regional routes.

"This order is a key milestone for our operation here in Vietnam and beyond," said Le Hong Ha, Chief Executive Officer of Jetstar Pacific. "These new aircraft will be used primarily to expand our international network from Vietnam as part of the wider Jetstar Group. As competition grows in Vietnam, we believe that the A320 and our value-based quality service will place us well to attract a growing share of the market."

"We are pleased to sign our first purchase agreement with Jetstar Pacific in Hanoi today," said Fabrice Brégier, Airbus President & CEO. "The order reinforces the position of the A320 as the single aisle aircraft of choice for airlines in Vietnam. We look forward to developing further our partnership with Jetstar Pacific as it consolidates its position in the fast-growing South East Asian market."

Value-based airline Jetstar Pacific operates a total of 33 domestic and international routes. It is part of the larger Jetstar Group network that connects to more than 75 destinations in 17 countries with 4,000 weekly flights across Jetstar Airways (Australia), Jetstar Japan (Japan), Jetstar Asia (Singapore) and Jetstar Pacific.

The A320 Family is the world's best-selling single aisle product line with more than 12,700 orders since launch and more than 7,150 aircraft delivered to some 400 customers and operators worldwide. With the widest cabin in the single aisle market, the A320 Family offer unmatched comfort in all classes and Airbus' 18" wide seats in economy as standard. The A320 Family aircraft seat from 100 to 240 passengers, seamlessly covering the entire single-aisle segment from low to high-density domestic to longer range routes.

For Further Information [Click Here](#)

**Source:** Epicos, Airbus