

Boeing in Southeast Asia

Boeing has a long history of business and technical collaboration in Southeast Asia. Beginning in the late 1940s with the provision of commercial airplanes to fledgling national airlines, Boeing activities in Southeast Asia have grown to encompass partnerships in commercial aviation, defense, space and research.

Today, the company remains strongly committed to strengthening and expanding these relationships while continuing to support the development of the aerospace sector in the region. Leveraging on Boeing's long tradition of aerospace leadership and innovation, the company has provided Southeast Asian nations with the products and expertise that have played a key role in helping the region to grow into the vibrant economic entity that it is today.

To foster valuable relationships and to provide support to customers in Southeast Asia, Boeing maintains offices in both Singapore and Malaysia. Company organizations represented in these offices include Boeing Commercial Airplanes; Boeing Defense, Space & Security; Boeing Commercial Airplane Services; Boeing Integrated Materials Management; Boeing Flight Services; Boeing Shared Services Group; Technical Services and Modifications; and Supplier Management and Procurement. Additionally, Boeing Field Services has deployed technical support teams in Singapore, Malaysia, Thailand, Vietnam, Philippines, Brunei and Indonesia.

Boeing also engages with a number of Southeast Asian companies as suppliers for airplane components, freighter conversion and maintenance. The region's role as a key global logistics hub has also prompted Boeing to establish regional spares distribution and supply chain management operations in Singapore.

Ralph L. "Skip" Boyce was named president of Boeing Southeast Asia in February 2008. He is responsible for strengthening the company's presence across the region and supporting Boeing growth and productivity opportunities.

Boeing in Singapore

Boeing Commercial Airplanes' relationship with Singapore is built on a long and mutually beneficial collaboration. In the late 1970s, Singapore Airlines (SIA) embarked on a strategy of frequent fleet modernization. This resulted in the airline purchasing 70 747s between 1978 and 2000. In 1993, SIA took delivery of its 21st 747-400, the 1,000th 747 to be produced by Boeing.

In the mid-1990s, SIA further refined its capacity strategy by introducing 777s into its fleet, beginning in 1995 with an order for 34 777s, with options for an additional 43 777s.

Today, SIA is one of the largest 777 operators in the world, having to date ordered 85 of the family, 27 of which are 777-300ER (Extended Range) aircraft. This includes the order announcement for eight additional 777-300ER aircraft valued at \$2.4 billion in November 2011.

In 2013, SIA ordered 30 Boeing 787-10s. The largest variant of the 787 Dreamliner family will seat 300 to 330 passengers and will be the most efficient jetliner in history. It also has a firm order of 20 787s that will be transferred to its low-cost subsidiary, Scoot, to support its regional growth plans.

In November 2012, SilkAir, the regional wing of SIA, confirmed an order for 23 Boeing 737-800 and 31 Boeing 737 MAX 8 aircraft, with purchase rights for another 14 aircraft. Valued at \$4.9 billion, this is the largest order in SilkAir's history. The new aircraft will cater to both growth and fleet renewal.

Singapore Airlines Cargo operates 13 747-400 Freighters. In conjunction with SIA and Boeing Commercial Aviation Services, Singapore Airlines Engineering Company (SIAEC) completed its first 747-400 BCF (Boeing Converted Freighter) in 2006, using a conversion kit from Boeing. Through 2013, SIAEC has redelivered six 747-400 BCFs to SIA Cargo and Dragonair Cargo.

Boeing has developed a strong partnership with BOC Aviation (formerly Singapore Aircraft Leasing Enterprise). Incorporated in 1993, BOC Aviation has grown to be a major customer of Boeing, having ordered to date a total of 64 Boeing airplanes, of which 50 are Next-Generation 737 airplanes. In addition, BOC Aviation has acquired another 59 Boeing airplanes on purchase and leaseback from various airlines around the world, bringing its present total commitment to Boeing airplanes to 123 units.

Boeing has been a defense supplier to Singapore since the early 1990s. Singapore has executed two orders for the CH-47 Chinook and currently has 10 SD models flying in Singapore and six D models flying at a U.S. Army National Guard base in a suburb of Dallas. Singapore's Chinook helicopters have played a significant role in disaster relief in the region and in the United States.

The Republic of Singapore Air Force (RSAF) flew missions to provide food, water and shelter to survivors of the 2004 tsunami in Indonesia and Thailand and to rescue survivors and shore up levees in New Orleans after the Katrina hurricane disaster. Singapore was also the first country in Southeast Asia to select the AH-64D Apache Longbow helicopter and executed two procurements, for a total of 20 platforms.

In 2005, Boeing received a contract for 12 F-15SG fighters, which was supplemented with an additional order for 12 more in 2007, for a total of 24 F-15SG aircraft.

Boeing in Malaysia

Boeing Commercial Airplanes has developed an enduring partnership with Malaysia. In 1969, Malaysia Airline Systems (MAS) bought five 737-100s to replace the Comet 4s, becoming the first airline in Southeast Asia to use them. Malaysia Airline Systems is a long-time customer of Boeing, with a growing fleet of 737-800s replacing its 737-400 “classic” fleet.

Malaysia Airline Systems currently operates a fleet of 115 airplanes that includes 76 Boeing airplanes: 45 737-800s, 14 737-400s, two 747-400 Freighters and 15 777-200ERs.

In 2011, MAS increased its previous order of 35 Next-Generation 737-800 airplanes by adding 10 additional aircraft, to make a total of 45 purchased 737-800s. The airline has an additional 10 Next-Generation 737-800s on option. Of the 35 737-800s in service, 21 are on long-term lease from various sources.

MAS will take delivery of 14 737-800s in 2013.

As MAS prepares for the ASEAN “Open Skies” program scheduled to take effect in 2015, the airline is undergoing a major organizational makeover. Key to its success will be the effective deployment of its efficient and economical 737-800 fleet in the regional and domestic marketplace.

In 2013, the Lion Group launched a new carrier, Malindo Air, a joint venture with National Aerospace and Defence Industries. It currently operates a fleet of six 737-900ERs.

In 1993, Malaysia ordered eight F/A-18D Hornets from Boeing Defense, Space & Security to strengthen the air power capability of the Royal Malaysian Air Force. As part of Boeing’s industrial participation commitment stemming from the F/A-18D purchase, Boeing completed a planned 10-year, \$271 million offset program within seven years.

In 1994, MEASAT Satellite Systems Sdn. Bhd. of Kuala Lumpur signed a contract with Hughes Space and Communications International Inc. (HSCI), now Boeing Satellite Systems International Inc., for delivery of one Hughes 376 model spacecraft and an option for a second, forming the Malaysia-East Asia Satellite (MEASAT) system. MEASAT Satellite Systems Sdn. Bhd. exercised its option Nov. 30, 1994, and authorized Hughes to proceed with a second 376 satellite.

On March 21, 2003, MEASAT Satellite Systems Sdn. Bhd. and Boeing announced the procurement of a high-power commercial communications satellite to enhance Malaysia’s infrastructure and regional communications. MEASAT 3 was launched Dec. 11, 2006, and its C-band payload provides

communication service over Asia, Australia, the Middle East, Eastern Europe and Africa, representing 70 percent of the world's population.

In 2004, Boeing Defence Australia delivered a Network Centric Command and Control System (NC3S) to Headquarters Integrated Area Defence System (HQ IADS), the operational arm of the Five Power Defence Arrangements organization, which includes Australia, Malaysia, New Zealand, Singapore and the United Kingdom. The Boeing Defence Australia IADS NC3S links sensors and information networks across air, land and maritime domains. The system allows the IADS command to view a common operating picture in real time for joint operations, providing improved situational awareness and decision-making capabilities.

In April 2012, Insitu Pacific, a wholly owned subsidiary of Insitu Inc. and Boeing, announced a contract with Composites Technology Research Malaysia (CTRM) to support ScanEagle operations. The unmanned aircraft systems will be operated by CTRM's subsidiary Unmanned Systems Technology.

Boeing in Indonesia

Boeing has a long-standing partnership with the Indonesian aerospace industry.

Garuda Indonesia, the flagship carrier for Indonesia, operates a mixed fleet that includes 32 737-300, -400, and -500 "classics" and 56 Next-Generation 737-800 airplanes, as well as two 747-400s. The carrier operates domestic and international routes in Asia and the Middle East. In 2008, Garuda announced an order for four 777-300ER airplanes and confirmed a previous unidentified order for seven 737-800s. It also announced the conversion of 18 of its existing 737-700s on order to 737-800s and six 777-200ERs on order to 777-300ERs. Garuda's total order currently stands at six 737-800s and 10 777-300ERs jetliners. The airline acquired purchase rights for an additional 25 737-800s and 10 777-300ERs. The airline took delivery of its first 777-300ER in June 2013.

A number of startup airlines have commenced operation within the last five years using second-hand airplanes in a low-cost carrier business plan, similar to the beginnings of Southwest Airlines in the United States. The largest and most aggressive of these airlines is Lion Air. To date, Lion Air has ordered 178 737-900ER airplanes and has become the world's largest operator of the 737-900ER. The airline received the first 737-900ER in April 2007, when the airplane was delivered in a special dual-paint scheme that combined the Lion Air logo on the vertical stabilizer and the Boeing livery colors on the fuselage. As of November 2013, the airline operates 85 Next-Generation 737s and two 747-400s.

At the Singapore Airshow in 2012, Boeing and Lion Air finalized a historic order for up to 380 737s. Lion Air ordered 201 737 MAXs and 29 Next-Generation 737-900ERs worth \$22.4 billion, with purchase rights for an additional

150 airplanes. This is the largest commercial airplane order ever in Boeing history by both dollar value and total number of airplanes.

On June 8, 2012, Lion Air announced an order for five 787 Dreamliners for its newly launched premium carrier Batik Air at a list price of \$967.5 million. Batik Air currently operates four 737-900ERs.

In September 2012, Boeing and the Republic of Indonesia signed a memorandum of agreement announcing that both parties will collaborate on commercial aviation safety, efficiency and aerospace industry development in Indonesia and Southeast Asia.

Boeing in Thailand

Boeing and Thailand have enjoyed a mutually beneficial relationship for more than 50 years. This association dates back to 1960, when THAI Airways Company, now named THAI Airways International, launched its first service flight with a DC-6B from Bangkok to Hong Kong, Taipei and Tokyo.

Today, THAI operates 91 airplanes and an average of about 840 flights per day to more than 50 destinations. Thai currently operates a Boeing fleet of five 737-400s; 16 747-400s, including two 747-400 BCFs; eight 777-200s; six 777-200ERs; six 777-300s; and eight 777-300ERs. The airline recently completed taking delivery of eight 777-300ERs on long-term lease from BOC Aviation and will take delivery of six 777-300ERs purchased from Boeing. Thai also has six 787-8s and two 787-9s on long-term lease from International Lease Finance Corp. (ILFC).

Nok Air is a 39 percent Thai Airways-owned subsidiary and will be the first airline in Thailand to operate 12 737-800 airplanes. Nok is the first operator to fly the new Boeing Sky Interior on its first new leased Next-Generation 737, delivered in January 2013. The airline is scheduled to receive an additional four new Next-Generation 737s in 2014, which would bring Nok's fleet up to 16.

Boeing established its space and communications presence in Thailand in 1991, when Hughes Space and Communications Company, today Boeing Satellite Systems International Inc., developed the country's first dedicated communications satellite system. The system was named THAICOM by His Majesty King Bhumiphol. THAICOM 1 was launched Dec. 17, 1993, and THAICOM 2 was launched Oct. 7, 1994. Telemetry, tracking and control are performed through the Boeing-built ground station in Nonthaburi province.

Boeing in Vietnam

Boeing established its Vietnam presence in 1995 when Vietnam Airlines (VIE) leased three Boeing 767 airplanes. In December 2001, VIE signed the first-ever purchase of Boeing airplanes — four Boeing 777-200ER jetliners. This signing

was the first business transaction to be finalized between companies in Vietnam and the United States under the historic Bilateral Trade Agreement ratified by the two countries.

VIE currently operates 10 777-200ERs. In June 2005, VIE became a launch team customer on the 787 Dreamliner program and has eight airplanes on order. In addition to the order, the airline will lease an additional 11 787 Dreamliners from ILFC and Air Lease Corporation.

Boeing in Brunei

Established in 1974, Royal Brunei Airlines (RBA) is an independent corporation wholly owned by the government of Negara Brunei Darussalam. At its first meeting, which took place seven days after the incorporation, the board of directors decided to purchase two Boeing 737-200 airplanes to start its fleet. Six months later, on May 14, 1975, one of the Boeing 737s, bearing the nation's colors, thundered down the runway of the similarly new Brunei International Airport en route to Singapore — RBA's first-ever scheduled service. In 2013, RBA took delivery of its first 787 Dreamliner in October and became the first airline in Southeast Asia to operate the game-changing airplane. The airline also operates four Boeing 777-200ERs in its fleet of nine airplanes.

Boeing in Philippines

In March 2011, Philippine Airlines (PAL) celebrated its 70th anniversary as Asia's first airline. PAL conducted its first flight on March 15, 1941, using a Beech Model 18 as the national flag carrier of the Philippines, and has been operating longer than any other airline in Asia. As early as 1946, the airline operated a fleet of five Douglas DC-3s and also chartered a DC-4 to ferry 40 American servicemen from Manila to Oakland, Calif., making PAL the first Asian airline to fly across the Pacific. PAL was also the first Southeast Asian airline to serve Europe in 1947 to Rome, Madrid and London.

Today, PAL and its sister airline, PAL Express, serve 36 domestic and 33 international destinations in 15 countries. PAL is a long-time Boeing customer and currently operates four Boeing 747-400s and five 777-300ERs, with one more 777-300ER scheduled for delivery in November 2013.

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