

Boeing in Korea

Boeing and the Republic of Korea (ROK) have a solid history of working together that dates back to 1950. Today, Korea represents one of the top 10 largest international markets for The Boeing Company. Boeing partnerships in both the commercial airplane and defense markets help support the growth of the Korean aerospace industry. Boeing also continues to focus on strengthening ties with current industry partners and defense customers such as the Defense Acquisition Program Administration and the Ministry of National Defense.

Boeing Korea was established in 1988 and currently employs more than 200 people across nine Korean cities: Seoul, Incheon, Busan, Gimpo, Icheon, Seosan, Daegu, Sacheon and Yeongcheon. Led by Eric John, president, Boeing Korea works closely with Korean customers such as Korean Air, Asiana Airlines and Jeju Air.

Korean Industry Partnerships

Korea's aircraft manufacturing industry began with the establishment of the Korean Air Aerospace Division (KAL-ASD) in 1976. As a pioneer in this field, KAL-ASD has co-produced military aircraft such as MD 500 helicopters, Northrup F-5 fighters and Sikorsky UH-60 midsized utility helicopters.

Boeing has a long, cooperative relationship with KAL-ASD. Over the years, KAL has demonstrated its strengths as a valuable partner on the 737, 747 and 777 programs. Today, KAL supplies composite structures and components on Boeing's newest commercial airplane programs, including the 787 Dreamliner, the 747-8 and 737 MAX. KAL has also provided support services to some of Boeing's military aircraft programs, and the two companies are pursuing opportunities to broaden their defense collaboration. KAL was recognized as a Boeing Supplier of the Year in 2000, 2006 and 2012.

Korea Aerospace Industries (KAI) has been a supplier to Boeing since KAI's inception in 1999, first providing structural components for the 777 and then steadily increasing its work. KAI now has contracts with Boeing to provide 777 nacelle fittings, 737 empennages, 737-based P-8 empennages and raked wingtips, as well as the pivot bulkhead for the 787 Dreamliner. KAI also provides major structural component parts as a tier-2 supplier for the 747-8, 767 and 787.

KAI is a valued supplier on a number of Boeing defense programs. It manufactures F-15 forward fuselages and wings and is a key supplier on the P-8 program and A-10 wing replacement program. KAI also performed extensive modifications necessary for the 737-based Peace Eye Airborne Early Warning and Control (AEW&C) aircraft for the Republic of Korea Air Force (ROKAF). KAI was recognized as a Boeing Supplier of the Year in 2010 and 2012.

Boeing is a minority shareholder in Huneed Technologies, a leading supplier of communications networks systems for Korea's command, control, communications and networks market. Boeing and Huneed continue to enhance their cooperation through targeted product and service opportunities that help position Huneed for global avionics market growth by providing state-of-the-art military aircraft avionics equipment, electrical components and related services to Boeing and its major suppliers.

Hyundai Glovis brings its expertise in logistics handling and supply chain distribution for the automotive industry to the F-15K performance-based logistics (PBL) program. Hyundai Glovis supports in-country logistics activities, including transporting key F-15K parts from Korean ports of entry to maintenance depots at Daegu and Seosan Air Base and warehousing and distributing parts inventory at each air base. Hyundai Glovis also responds to ROKAF F-15K parts requirements and provides timely delivery of parts to the maintenance depots.

Throughout its 29-year history, Hyune Aero-Specialty has provided parts to Boeing and its suppliers for commercial airplane programs, including the 737, 747, 767 and 787.

In 2017, Boeing spent more than \$400 million with Korean companies, maintaining Korea's position in the top quartile of nations with which Boeing does business. Currently more than 48 Korean companies provide products and services for Boeing production and sustainment programs, research and development, and a broad range of internal services that support Boeing operations. Boeing remains committed to helping Korea address its industrial and technology development needs and has shown continuous and incremental commitment toward Korea, spending \$3.5 billion to date over the past 10 years.

Boeing Commercial Airplanes

Boeing has been involved with Korea's growing commercial aviation business from the very beginning. The first heritage Boeing airplane in Korea was the Douglas DC-3. In 1969, the country's flagship airline, Korean Air — then Korean Air Lines (KAL) — purchased its first commercial jetliner, a Boeing 707, which signaled the beginning of Korea's modern commercial aviation business.

Today, Korean Air is one of the top global airlines and is also known for its robust cargo business. Boeing freighters have proved to be a major factor in catapulting the airline to become the largest carrier between North America and Asia.

In February 2017, Korean Air took delivery of its first 787-9, becoming the first airline in Korea to introduce the 787 Dreamliner. It currently operates five 787-9 airplanes and is scheduled to receive its five remaining 787-9s on order over the next couple of years.

In 2015, Korean Air became Boeing's first 737 MAX customer in Northeast Asia outside of China when it placed a firm order for 30 737 MAX airplanes. The airline's Aerospace Division, KAL-ASD, is also a dual-sourced supplier for the distinct Advanced Technology (AT) winglet that is featured on the 737 MAX. In addition, the airline has the

distinction of being the first Boeing customer to order both the 747-8 Intercontinental (passenger) and the 747-8 Freighter versions of the airplane; it is also a key supplier partner for the 747-8 program. In February 2012, Korean Air became the first airline in the world to simultaneously operate a 747-8 Freighter and a 777 Freighter.

As of February 2018, Korean Air operates a total of 92 Boeing passenger airplanes: 4 747-400s, 10 747-8 Intercontinentals, 14 777-200ERs, 20 777-300ERs, 4 777-300s, 35 737s (13 737-800s, 16 737-900s and 6 737-900ERs) and 5 787-9s. Korean Air also operates 28 Boeing freighters: 9 747-400Fs, 7 747-8Fs and 12 777Fs. Its low-cost subsidiary, Jin Air, currently operates 25 Boeing passenger airplanes: 4 777-200ERs and 21 737-800s.

Asiana Airlines, Korea's second-largest carrier, was established in 1988 and took delivery of its very first airplane, a Boeing 737-400, that year. The airline made its inaugural flight in 1989 and since then has rapidly expanded, garnering many key accolades along the way. In 2007, Asiana Airlines was awarded the prestigious Skytrax five-star ranking, an accolade shared with only a handful of airlines around the world. In 2009, Air Transport World awarded Asiana with the Airline of the Year award, which is considered one of the most honorable awards in the airline industry.

Today, the airline operates 31 Boeing airplanes, including seven 767-300s, nine 777-200ERs, two 747-400s, twelve 747-400 Freighters and one 767-300 Freighter. Boeing airplanes have played an important role in helping Asiana Airlines become a world-leading airline.

Jeju Air, Korea's first low-cost airline, operates an all-Boeing fleet of Next-Generation 737-800s. Jeju Air's rapid success has turned the airline into Korea's third largest carrier. Due to continued growth in the low-cost air travel market, Jeju Air looks to expand its intra- and inter-regional network, as well as expand its fleet to 70 airplanes by 2021. Jeju Air currently operates 31 leased 737-800s with its latest plane added on December 20, 2017.

Other growing low-cost carriers — t'way air and Eastar Jet — operate all-Boeing fleets of 19 737s each (Classic and Next-Generation), further expanding the low-cost air travel market in Korea.

Boeing Training & Professional Services, a unit of Boeing Global Services, maintains a sizable in-country presence to deliver training locally. Global Services provides flight training for Boeing aircraft to Korean Air and its low-cost subsidiary Jin Air. It also provides training on Boeing and Airbus aircraft to Asiana at the airline's training facilities.

In November 2013, Boeing participated in a groundbreaking ceremony with the city of Incheon and Korean Air for construction of Korea's largest aviation training facility, located in Incheon's Free Economic Zone. The new training center, built by Korean Air, opened in 2016 and provides a modern, state-of-the-art facility for Boeing to continue to provide world-class training for Korean Air pilots.

Boeing Defense, Space & Security

Boeing has been involved in Korea's defense and aerospace development since Douglas AD Skyraiders went into service during the Korean War. As a premier jet-fighter developer and producer, Boeing involvement with Korean military aircraft dates back to 1969, when heritage company McDonnell Douglas delivered F-4 Phantoms to the Korean Ministry of National Defense.

Following the acquisition of 14 U.S. Army Chinooks, the Korean Armed Forces are now the fourth-largest CH-47 operator, with 42 aircraft. Chinooks are operated by both the ROK Army and Air Force.

The ROK selected the AH-64E Apache equipped with the Longbow fire control radar as its new attack helicopter, increasing Korea's ability to defend against land-based and littoral threats in the region. The Foreign Military Sales contract between the ROK Army and the U.S. Army for 36 AH-64E Apaches was signed in August 2013, and the first batch of Korean Apaches was delivered in May 2016. ROKA received all 36 Apaches in early January 2017, ahead of schedule.

The ROK also awarded Boeing a contract for 40 F-15K aircraft in 2002, which were delivered to the ROKAF ahead of schedule and on cost. In 2008, Korea awarded Boeing a second contract for 21 F-15Ks, which were also delivered on schedule and on cost. The final two F-15Ks were delivered in April 2012.

F-15K service life is planned through 2040 and beyond, with technology insertions and upgrades throughout the life cycle. Boeing continues to support the ROKAF F-15K fleet through a long-term, affordable PBL program, ensuring that ROKAF F-15K Slam Eagles are operationally ready to protect the ROK. Korean supplier-partner Hyundai Glovis provides in-country logistics handling and supply chain distribution for the PBL program.

In September 2012, Boeing signed a memorandum of understanding with the province of Gyeongsangbuk-do and the city of Yeongcheon to establish an avionics maintenance, repair and overhaul facility. Located in the Yeongcheon Industry District of Daegu-Gyeongbuk Free Economic Zone near Daegu Air Base, the center allows the company to more affordably and conveniently support the ROKAF F-15K fleet. The facility supports the area's Aero Techno Valley vision of a high-tech aerospace industry corridor and expanded in-country avionics capabilities, and avionics services offered there could expand to support other assets throughout the region. The 10,000-square-foot (930 square meter) high-tech facility officially opened in May 2015.

In November 2006, Boeing was selected to provide the ROKAF with four Peace Eye 737 AEW&C aircraft and ground support segments. Korean industry supplier KAI performed extensive modifications necessary to transform the aircraft into the Peace Eye configuration. All four aircraft have been delivered.

Boeing Global Services

Operating as a third business unit of Boeing, Global Services combines the services capabilities of Commercial Airplanes and Defense, Space & Security to provide support for commercial, space and government customers. With competitive rates, operational agility and tailored solutions, Global Services provides the best value and customer experience in the aerospace services industry. Global Services supports Korea's commercial and government aviation customers in four areas:

- **Supply Chain:** Global Services is in the unique position to have the world's most robust supply chain. Expanding service offerings within the Boeing supply chain increases operational agility and results in cost savings that can be shared with customers.
- **Engineering, Modifications & Maintenance:** Global Services can convert, sustain and upgrade any airplane or aircraft in the world, regardless of platform manufacturer.
- **Digital Aviation & Analytics:** Global Services provides customers with unique software capabilities that reduce operating costs and increase operational effectiveness. The launch of a new business called Boeing AnalytX, combined with Boeing's original equipment manufacturer (OEM) knowledge, brings together the work of more than 800 analytics experts from across the company to transform data into actionable insight and innovative solutions for customers.
- **Training & Professional Services:** Global Services ensures that maintainers, pilots and flight crews are ready to sustain and operate airplane and aircraft platforms as effectively and safely as possible.

#

Contact:

Chang Koh
+82 2 2075 4815
changgyun.koh@boeing.com

Linda Taira
+1 562 537 8374
Linda.taira@boeing.com

Kevin Yoo
+1 206 766 2906
kevin.k.yoo@boeing.com

Ken Mercer
+1 312 544 2229
kenneth.b.mercer@boeing.com

Last revised March 2018.