

Korea at a glance

Official name: Republic of Korea

Location: On the Korean Peninsula between the Yellow Sea to the west and the East Sea to the east; only bordering nation is the Democratic People's Republic of Korea (North Korea)

Area: 38,500 square miles (100,000 square kilometers), slightly larger than the U.S. state of Indiana

Population: More than 48.7 million, ranks 26th highest in the world

Official language: Korean

Capital: Seoul

Other key cities: Busan, Incheon, Daegu and Daejeon

Gross domestic product, 2010 estimate: \$1.47 trillion (U.S. dollars), ranks 13th worldwide

GDP growth rate, 2010 estimate: 6.1 percent

Largest export partners: China, United States, Japan and Hong Kong

Direct Boeing employees in Korea: 190

Sources: The World Factbook, U.S. Department of State, Boeing

ROKstar

South Korea is one of Boeing's top markets for both defense and commercial products

By Eric Fetters-Walp

The Republic of Korea has emerged as a vibrant economic force and one of the world's most technologically advanced nations in the 21st century.

Korea isn't large geographically—it would rank 38th among the 50 U.S. states—but its gross domestic product annually ranks in the top 15 internationally.

That's a great achievement for a nation that suffered more than its share of war and political turmoil during the past century. But with a culture dating back at least 4,000 years, one of the world's highest population densities and a historically important location, it should be no surprise Korea has moved forward so fast.

"It is a large and growing economy. They've done an amazing transformation over

the past 30 years," said Shep Hill, president of Boeing International and senior vice president of Business Development and Strategy.

The nation's economic rebirth and its strategic position on the Korean Peninsula have made the Republic of Korea a major Boeing customer and supplier. It is a market with two important military aircraft competitions on the horizon, as well as a customer for three of Boeing's newest commercial airplane models.

"In recent years it has consistently been one of Boeing's top markets," said Patrick Gaines, president of Boeing Korea. "Korea is an ideal 'One Boeing' market with our revenues being split almost equally between Boeing Defense, Space & Security and Commercial Airplanes. Our work in-country often complements

sales in both business units."

During its 60-year military partnership with the United States, the nation has often turned to Boeing and its heritage companies to help equip its defense forces, starting with Douglas Skyraiders during the Korean War. Since then, Boeing has delivered 30 CH-47D and HH-47D Chinook heavy-lift and air rescue helicopters to the Republic of Korea Army and Air Force, making Korea the third-largest operator of Chinooks outside the United States.

In 2002, Boeing won a multibillion-dollar contract over three competitors to provide Korea with 40 F-15K Slam Eagle jet fighters. That was followed in 2008 with another multibillion-dollar contract to produce 21 additional F-15K jet fighters, with deliveries continuing through next year.

"It's a very important market. Our

products here are the backbone of the ROK Air Force, and Korea represents one of the largest international markets for us," said Chris Chadwick, president, Boeing Military Aircraft.

In the coming months, Korea is likely to request bids for its third jet-fighter acquisition program since the early 2000s—FX-III. Boeing will offer the F-15 Silent Eagle, a newly developed, stealthier version of the F-15 the ROK Air Force already operates. Eunjeong Bahn, the F-15K program's logistics support representative in Korea, said the next-generation Silent Eagle would be well-suited for the operational environment in and around Korea.

At present, Boeing is focused on helping deliver the remainder of its existing F-15K orders and providing support for the Republic of Korea's Air Force fighter

"Korea is an ideal 'One Boeing' market."

— Patrick Gaines, president of Boeing Korea

PHOTO: An F-15K Slam Eagle jet fighter on the runway at Daegu Airbase, Korea. Over the past decade, the Republic of Korea has ordered more than 60 of the Boeing-built fighters. REPUBLIC OF KOREA AIR FORCE

fleet. Bahn said the complex F-15K fighters have an impressive operational readiness rate of 85 percent, which supports Boeing's future bid. "A happy customer often is a return customer," she said.

Korea's government also is considering the acquisition of up to 36 AH-64D Apache attack helicopters. Additionally, Boeing Defense, Space & Security is working with the ROK Air Force and ROK Army on upgrading their Chinook helicopters.

To meet its military surveillance needs, Korea has ordered four Peace Eye aircraft, a 737-based Airborne Early Warning & Control aircraft similar to Australia's Wedgetail and Turkey's Peace Eagle models. The first Peace Eye recently was delivered to the ROK Air Force, while the next three are being modified by Korea Aerospace Industries in Sacheon between now and late 2012.

Troy Hall, senior manager and on-site team lead for the Peace Eye program, said the KAI team's accomplishments show

why the company was honored as a 2010 Boeing Supplier of the Year.

"I'm impressed with the quality of the workmanship and the team's dedication," Hall said. "We are getting it done right and on schedule."

On the commercial side, Korea's airlines are growing in response to passenger demand. The nation's airlines saw a record number of international passengers fly during May of this year, according to the Ministry of Land, Transport and Maritime Affairs.

During the next 20 years, air travel in Asia is expected to grow at an annual rate of 6.7 percent. This rapid growth suggests that Korea will need more than 500 new airplanes to meet demand, according to Boeing forecasts. With Incheon International Airport serving as a major hub in Asia, Korea's commercial airline business is well-positioned to benefit from future growth in the region's air travel.

"Korea was not as hard hit by the global economic downturn," Gaines noted. "Both the major carriers and the low-cost carriers have been

very profitable and need airplanes to keep up with the growth requirements."

Korea's flag carrier, Korean Air, recently took delivery of its first Next-Generation 737-900ER (Extended Range) featuring the Boeing Sky Interior. It is among the first customers to purchase the 747-8 Freighter, the 747-8 Intercontinental and the 787 Dreamliner. Korean carriers also hope to gain momentum from Pyeongchang's successful bid to host the 2018 Winter Olympic Games.

Gaines sees more work with Korean suppliers as Boeing defense and commercial programs advance. He also forecasts growth opportunities for Boeing's services in Korea. Boeing Training Services-Korea, part of Boeing Flight Services, already provides flight training for Boeing and Airbus aircraft at the training facilities of the two largest airlines in Korea: Korean Air and Asiana.

"Being embedded with the customer at their facility creates an invaluable understanding of the customer's training needs," said Soo-Mi Hong, business support manager for Boeing Training Services-Korea. The business, she added, also serves Jin Air; the Ministry of Land, Transportation and Maritime; and other smaller customers.

With the shared security and economic interests between Korea and the United States, Boeing actively has supported technology exchanges in defense products and advocated the United States-Korea Free Trade Agreement, Hill said. The agreement is awaiting approval from both nations' legislatures.

"As Korea's aspirations grow, we can't take anything for granted," Hill said. "We need to keep our focus on our customers there."

Kyung Yeon Kang, executive office administrator for Boeing International in Seoul, said it's gratifying to see the company invest in both the country's manufacturing base and, through Global Corporate Citizenship programs, its communities.

"I am proud to be able to say that the company I work for contributes to the Korean economy and the Korean aerospace industry," Kang said. ■

eric.c.fetters-walp@boeing.com

Value chain

Boeing has built strong relationships with its South Korean suppliers

Korean Air ordered its first commercial jetliner—a Boeing 707—in 1969 and launched Korea's first aerospace manufacturing company seven years later. Now, the nation is a trusted supplier for myriad Boeing products.

"Boeing is in Korea, but Korea also is involved with Boeing," said Patrick Gaines, president of Boeing Korea. "Every time you see a commercial airplane fly by, or an F-15 or an Apache, you're seeing components made here."

Korean Air Aerospace Division was the first aerospace firm established in Korea. It has since partnered with Boeing to provide components for the 717, 747, 777 and the 787 Dreamliner. Its high-quality work earned it the title of Boeing Supplier of the Year in 2000 and 2006.

Korea Aerospace Industries formed in October 1999 when Daewoo Heavy Industries, Samsung Aerospace, and Hyundai Space and Aircraft combined into one enterprise. The company has become a prime supplier of 737 horizontal and vertical assemblies; it soon will begin work on 787-9 composite wing ribs for Commercial Airplanes.

For Boeing Defense, Space & Security, KAI manufactures AH-64 Apache helicopter fuselages and F-15 forward fuselages and wings. KAI also is a key supplier on the A-10 Wing Replacement Program.

Additionally, KAI is making the extensive modifications necessary for the 737-based Peace Eye Airborne Early Warning & Control aircraft. The company's high-quality,

on-time deliveries earned it a 2010 Boeing Supplier of the Year award.

Boeing also owns part of Korea-based Huneed Technologies to subcontract work in Korea's command, control, communications and networks market.

"Many of Boeing's supplier relationships in Korea began as part of our offset, or local work placement, programs," Gaines said. "And when you look at the quality and value we have achieved, it's clear these relationships have grown into great supplier partnerships."

— Eric Fetters-Walp



PHOTOS: (Far left) An employee of Korea Aerospace Industries in Sacheon, Korea, works on one of three Peace Eye Airborne Early Warning & Control aircraft being modified by the company. **(Above)** Korean Air Aerospace Division workers perform maintenance on the engine of a 747-400 Freighter. The company provides components for Boeing's 717, 747, 777 and the 787 Dreamliner.

Sky-high opportunities

Boeing has more than 60 percent of the jetliner market in South Korea

Demand for air travel in Korea has increased rapidly in recent years, driving growth for the mix of low-cost domestic and regional airlines and large international carriers serving the nation.

Four of the five newest carriers that

serve the low-cost, regional market operate all-Boeing fleets. These airlines operate alongside the nation's two long-established, larger international carriers, Korean Air and Asiana. Korean Air is among the first airlines to purchase three of Boeing's newest commercial models—the 787 Dreamliner, the 747-8 Freighter and the 747-8 Intercontinental.

Both Korean Air and Asiana also have ordered a notable number of 777-200ER (Extended Range) and -300ER models in recent years—with the former having taken delivery of its 30th 777 in May. On the cargo side, Korean Air ranked second worldwide last year in scheduled freight tonne kilometers, according to the International Air Transport Association.

"Our estimates are that Korea will need more than 500 new airplanes by 2030, so it's a big market and one that's growing," said Fariba Alamdari, vice president of Market and Value Analysis for Commercial Airplanes. She added



"Our estimates are that Korea will need more than 500 new airplanes by 2030, so it's a big market and one that's growing."

— Fariba Alamdari, vice president of Market and Value Analysis for Commercial Airplanes

that Boeing holds a market share of more than 60 percent in commercial aviation in Korea, "so we have a good opportunity to be a big player there."

A quick look at Korea's major commercial airlines:

- **Korean Air** – Korea's original airline, Korean Air's fleet of 112 passenger airplanes includes 18 Boeing 747-400s, 18 777-200ERs, a dozen 777-300ERs and -300s, and 32 Next-Generation 737s; the remainder consists of Airbus models. The airline also owns and operates 24 747-400 Freighters for its cargo business.
- **Asiana Airlines** – One of the two largest airlines in Korea, Asiana operates two Boeing 737-400s, 767-300s (seven passenger and one cargo), 11 777-200ERs and 12 Boeing 747-400s, with a mix of passenger-only 747s, combination passenger/cargo 747s and cargo-only jets. It also operates 38 Airbus jets.
- **Jeju Air** – Launched in 2005 and based in Jeju City, this low-cost carrier flies an all-Boeing fleet of eight Next-Generation 737-800s. The airline flies within Korea and to destinations in Japan and East Asia.
- **Air Busan** – A low-cost subsidiary of Asiana, Air Busan flies several routes between Korea and nearby nations in Asia. Its fleet includes three 737-400s and three 737-500s.
- **Eastar Jet** – This low-cost carrier, which first flew in 2009, is an all-Boeing airline, flying six Next-Generation 737-600s and 737-700s on short-haul routes within Korea and to other nearby destinations.
- **Jin Air** – This subsidiary of Korean Air is a low-cost airline flying an all-Boeing fleet of five Next-Generation 737-800s between Korea, multiple destinations in East Asia and Guam.
- **T'way Airlines** – This low-cost carrier has a fleet consisting of three Next-Generation 737-800 airplanes. It flies only domestic routes.

— Eric Fetters-Walp

Good partners

Boeing supports Korean communities through a wide range of investments

Teaching young people about the environment, supporting orphaned children and helping underprivileged youth learn more about business are just three programs assisted by Boeing's community partnerships in Korea.

Every year, in partnership with thousands of nonprofits and other organizations around the globe, Boeing invests in programs that target areas that help build and sustain strong communities: the environment; health and human services; arts and culture; and education and civic awareness.

Boeing Korea in 2010 made community investments in eight different organizations, and employees are active in their communities across Korea, including participation in Boeing's annual Global Day of Service.

The Korea Green Foundation, a grant recipient, leads a "Climate Change Classroom" program that teaches children, especially those from low-income families, about environmental issues.

"Throughout this program, these future environmental leaders will recognize the importance of eco-friendly management of businesses and the importance of building a sustainable future to set an example for generations to come," said Yul Choi, president of the Korea Green Foundation.

Other programs receiving community investments include Young Falcons of Korea, which teaches awareness of environmental issues in aerospace and other industries; the Pearl S. Buck Foundation Korea, focused on cultural understanding; Community Chest of



Seoul, which sponsors after-school counseling and activities in high-poverty areas; Haesung Orphanage, which provides therapy for orphans; Work Together Foundation, organizing arts programs at children's welfare centers; Junior Achievement Korea, which educated more than 10,000 underprivileged students last year in economics and business; and a science education program aimed at improving teachers' skills.

Additionally, Boeing employee volunteers have prepared and served meals for homeless people in Seoul, helped disabled residents take a mountain excursion, played with orphaned or abandoned children, and taken on maintenance and cleanup activities at the Changdeokgung palace grounds in Seoul.

"Having the opportunity to give back to the community means a lot to me and my team," said Sang Mun, senior manager for Phantom Works International Experimentation-Korea. "I am proud that Boeing understands the importance

of corporate citizenship and encourages employees to participate."

— Eric Fetters-Walp

PHOTO ILLUSTRATION: (Far left) A 747-8 Intercontinental in Korean Air livery. Korean Air has seven 747-8 Freighters and five 747-8 Intercontinental airplanes on order. MI-KYOUNG CHOI/BOEING

PHOTO: (Above) Boeing Korea volunteers work on a project with tenants at the House of Love facility for the disabled in Namhae, Korea. ASSOCIATED PRESS