

GLOBAL BOEING

Boeing's international strategy focuses on mutually beneficial partnerships

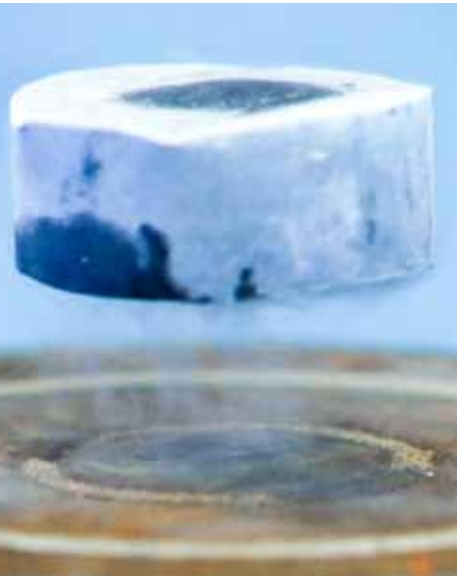
By Bill Seil

Around the globe, Boeing is developing partnerships that benefit its customers, business partners and local economies. In return, the company is strengthened by growing sales and tapping the best technologies the world has to offer.

In 2010, sales outside the United States accounted for 41 percent of Boeing's revenue. That number is expected to increase significantly over the next few years.

More than 80 percent of the Boeing Commercial Airplanes' backlog is for jetliners ordered by non-U.S. customers. And international sales are rapidly increasing as a portion of Boeing Defense, Space & Security's total revenue.

Shep Hill, president, Boeing International, said Boeing has long focused on



providing the best and most innovative products and services at affordable prices. The company also has worked to meet the specific needs of individual customers and regions.

"Doing business in today's global economy also means differentiating ourselves in terms of the partnerships we establish within each country," he said. "That includes local suppliers, universities, research talent and charitable institutions. It's all about having a meaningful, mutually beneficial presence."

Boeing's international strategy supports the strategies of its business units and aligns with the expectations and aspirations of the countries in which it operates. In doing so, the company values diversity and is sensitive to local laws and customs.



Boeing is enhancing its presence internationally by hiring local talent and deploying U.S. employees at key locations around the world. More than 8,500 of Boeing's 164,000 employees work outside the United States.

This strategy also involves establishing and strengthening research and development partnerships worldwide, as international markets fuel R&D growth.

The amount spent worldwide on research and development grew from \$790 billion in 2002 to \$1.15 trillion in 2007, according to the United Nations Educational, Scientific and Cultural Organization. This is the most recent figure available and reflects increased activity in Asia.

Boeing's expansive portfolio of global research and development partnerships



includes entities from 35 nations for research in diverse areas including biofuels, manufacturing processes, structures and robotics.

"Because there's more than \$1 trillion of investment in technology development around the world, it's in Boeing's interest to develop mutually beneficial research partnerships with institutions across the globe to leverage those investments for the sake of our customers," said John Tracy, Boeing chief technology officer and senior vice president, Engineering, Operations & Technology.

"These partnerships provide us access to advanced technologies that can improve our products and make us more competitive," he added. "And by working with these institutions and establishing international research



"By working with these institutions and establishing international research sites, we demonstrate that we're committed to building a long-term presence in important markets."

– John Tracy, Boeing chief technology officer and senior vice president, Engineering, Operations & Technology

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In addition to providing the best, most advanced products, the company is continually increasing its ability to provide outstanding customer service, quickly and effectively, throughout the world. ■

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Read more about the global strategies for Boeing Commercial Airplanes and Defense, Space & Security on the following pages.

PHOTOS: Boeing's partnerships around the world are fueling growth in research and development and making the company more competitive. (Clockwise, from top left) Composites research in the United Kingdom; new manufacturing methods in Spain; the 787 Dreamliner; research in unmanned airborne systems; aerodynamic testing using wind tunnels; and superconducting applications. BOEING

RAISING THE BAR

Expanding its international business is critical to the growth of Boeing Defense, Space & Security

By Paul Lewis

Turn the clock back to 2005 and international sales generated little more than 7 percent of overall revenue for Boeing's defense business. Sales at that time were overwhelmingly driven by domestic demand, while countries such as Brazil, India or Qatar were faraway places few knew little about.

Fast-forward to today and the picture is very different.

Output of Boeing-built fighters, airlifters and surveillance systems is increasingly reliant on orders from the Middle East, South Asia and the Far East. Look no further than the delivery ramps in St. Louis, Long Beach, Calif., or Boeing Field in Seattle, where there are F-15Ks destined for South Korea, C-17s for the United Arab Emirates or 737 Airborne Early Warning & Control aircraft for Australia, to name just a few of Boeing's lengthening list of international clientele.

Export sales last year accounted for almost 18 percent of Boeing Defense, Space & Security's nearly \$31.9 billion in revenue, and this impressive rate of growth is not expected to level off anytime soon.

Dennis Muilenburg, president and CEO of Boeing Defense, Space & Security, has flagged international growth as one of five strategic objectives for Accelerated Change, and in January he raised the bar for export sales to 25 percent or more of overall revenue by 2013.

The task of finding this new business falls to the International Business Development organization in Defense, Space & Security.

Mark Kronenberg, vice president of International Business Development, said the challenge is not just reaching 25 percent or more but sustaining that level of activity over the long haul.

"It is clear, simply selling more of what we now produce will by itself not get us there," he said. "We need to think differently about the markets we serve, how we as a business are organized and the partnerships we forge. We must strive to be a truly global company if we're going to be successful in this endeavor."

International Business Development has mapped out a comprehensive strategy for sustained growth. It calls for the development of people globally, building and integrating a Defense, Space & Security presence in local markets, creating new opportunities through alliances and partnerships, developing



PHOTOS: (Top) One of two Qatar Emiri Air Force C-17 Globemaster III airlifters Boeing has delivered to the Middle Eastern country. **BOEING (Above)** Keith Ternes, left, and Steven Stoverink work on the aft end of an F-15 fighter in St. Louis. **BOB FERGUSON/BOEING (Above right)** An artist's concept of a P-8I with India livery. **BOEING (Right)** Korea Aerospace Industries produces major assemblies for the AH-64 Apache. **KOREA AEROSPACE INDUSTRIES**

"We must strive to be a truly global company if we're going to be successful."

— Mark Kronenberg, vice president of International Business Development



a more robust portfolio of exportable products and, perhaps the most critical of all for ensuring repeat business, enhancing customer satisfaction.

A first step has been the reorganization of International Business Development and a significant strengthening of the team.

Critical, too, is staying closely aligned with Boeing Commercial Airplanes, which today draws 80 percent of its business from overseas, and harnessing the reach of Boeing International and its worldwide network of country presidents.

"We must work across the enterprise as a single team if we are to succeed," Kronenberg said.

Leveraging "One Boeing" has proved especially important in those markets new to Defense, Space & Security but where Commercial Airplanes has enjoyed a long-standing presence. India is a good example. Until recently India was inaccessible to Defense, Space & Security and other U.S. defense companies, whereas Commercial Airplanes has enjoyed a 70-year history.

When in 2005 the doors to Delhi began to open to U.S. contractors, Defense, Space & Security quickly established a presence, thanks to Commercial Airplanes. Success came in 2009 with an Indian Navy order for eight P-8I maritime patrol aircraft.

To be successful in today's highly competitive international environment, it is increasingly important to partner with both local companies and other global players. Teaming brings access to markets that might otherwise be off-limits, potential new technology and talent, as well as opportunities for industrial participation.

Over the past 30 years, Boeing has successfully implemented programs in nearly 40 countries, delivering benefits of more than \$41 billion on time or ahead of schedule.

Such programs go by many names: industrial cooperation, industrial benefits and offsets, to name a few. Whichever the name, the overall goal is the same: to fuel economic flow-back to a customer country as a result of that government's procurement of goods and services from Boeing.

Boeing currently has 53 active industrial programs worth more than \$17 billion in 22 countries, representing more than 15 Boeing products. In the next five years, Defense, Space & Security alone is looking at another \$34 billion in potential industrial programs as it pursues expanded international sales.

"We draw on the breadth and depth of Boeing to tailor each program to meet the specific requirements of the customer and to address the industrial development objectives of that country," said Gwen Kopsie, director of the organization working across Boeing businesses to shape how and whom the company works with globally to best support the growth strategy for Defense, Space & Security.

Boeing already boasts a chain of long-standing alliances around the world with well-known players.

Japanese industry over the years has built a large number of Boeing programs under license such as the F-15J, CH-47J Chinook and Apache. Korea Aerospace Industries produces major assemblies for the AH-64 Apache, A-10 and F-15 programs, while Boeing recently teamed with Italy's Finmeccanica to win a major training contract in Singapore.

The emergence of new growth markets brings with it potential new partners.

"The Middle East is now one of BDS' fastest-growing markets fueled by demand to recapitalize fighter aircraft,

“Being able to nurture and harness local know-how and creativity through partnering is key to broadening BDS offerings and sustaining international growth in the long term.”

– Gwen Kopsie, director of International Strategic Partnerships, Boeing Defense, Space & Security



airlift, rotorcraft and airborne surveillance capabilities,” said Paul Oliver, International Business Development regional director for the Middle East and Africa.

Today, Defense, Space & Security has some 2,800 employees based in 30 countries, the largest number of which work for Boeing Defence UK and Boeing Defence Australia. (See March 2011 *Frontiers*, Page 38.)

Boeing’s global footprint continues to grow and broaden into other markets.

In the past 12 months, Defense, Space & Security established a presence in Qatar and added to its worldwide network of analysis modeling, simulation and experimentation centers with a new facility in Bengaluru, India.

“Being able to nurture and harness local know-how and creativity through partnering is key to broadening BDS offerings and sustaining international growth in the long term,” Kopsie said.

The acquisition of companies such as Insitu, Narus, Argon ST and Tapestry Solutions has also served to provide greater depth and breadth. With these additions has come access to new and previously untapped international markets like cybersecurity, logistics command and control, and networked and unmanned systems.

For Defense, Space & Security to sustain 25 percent plus of international revenue over the long haul, customer satisfaction is an indispensable component.

“The impression we make, the trust we build and the promises we keep,” Kronenberg said, “are the most important elements to ensuring our customers and industry partners keep coming back to BDS.” ■

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FORWARD DEPLOYMENT

Close relationships with global customers is key to Commercial Airplanes’ success

By Bill Seil



PHOTOS: (Above, from left) New fuel-efficient and quieter GENx engines boost performance of the 747-8 Intercontinental on long-haul international routes. GAIL HANUSA/BOEING The Boeing Commercial Airplanes Operations Center answers urgent service requests around-the-clock from airlines operating more than 12,000 Boeing airplanes globally. MARIAN LOCKHART/BOEING

The more than 12,000 Boeing commercial jetliners in service around the world bring people together and help shape the global economy.

Boeing Commercial Airplanes has a global network that supports the maintenance and operation of these airplanes. It also has sales representatives based throughout the world who help airline customers to expand and upgrade their fleets and make their operations run more efficiently. In addition, the company has a worldwide network that works with its international suppliers.

Boeing’s Current Market Outlook report, which forecasts growth over the next 20 years, projects that the number of commercial airplanes worldwide will nearly double by 2029—increasing from 18,890 airplanes to 36,300. During that period, airplane deliveries for fleet growth and replacement of aging airplanes is expected to total around 30,900. In addition, Boeing forecasts that over the next 20 years the world’s airlines will need nearly a half-million new pilots and nearly 600,000 new technicians to support that growth.

Marlin Dailey, senior vice president, Sales & Marketing, said Commercial Airplanes is advancing a strategy of forward deployment—basing sales representatives near airline customers around the world. This has already taken place in Europe, the Middle East, Australia, China and throughout Asia. It helps the sales teams to get an even closer understanding of customers’ complex needs, build deeper relationships, and leverage company resources to more effectively support customers’ business objectives.

“We tend to be most effective in areas where we live with our customers,” Dailey said. “The more time we spend with our customers and become embedded with their businesses, the more successful we’re likely to be.”

The company is also making a greater effort to add local hires to its sales force around the world.

While the international market is currently outperforming U.S. sales, Dailey noted that markets fluctuate and U.S. sales will spring back.

“Today’s market is very dynamic and can change very quickly,” Dailey said. “So our ability to be nimble and be responsive will be increasingly important as we move forward.”

Supporting the existing worldwide fleet of Boeing jetliners is a complex task. A division of Boeing Commercial Airplanes,

PHOTOS: (Above, from left) A Peace Eye Airborne Early Warning & Control aircraft for the Republic of Korea is shown in flight. CHAD SLATTERY Under license, Japanese industry builds the CH-47J Chinook. JAPAN AIR SELF-DEFENSE FORCE

“Strong relationships with our suppliers are just as important as our relationships with our customers.”

– Ray Conner, vice president and general manager, Supply Chain Management & Operations

Commercial Aviation Services, or CAS, offers a portfolio of products, services and support aimed at helping airlines maximize the lifetime value of their fleets and operations, providing them with a competitive edge in their markets.

“We have aligned our business with the way our customers operate,” said Lou Mancini, senior vice president, Commercial Aviation Services. “Services that are vital to airline operations are located as close to the customer as possible.”

He pointed out that Commercial Aviation Services has eight spare-part distribution locations in the United States, Europe, the Middle East and Asia. They are staffed around-the-clock with an inventory of roughly 500,000 different types of parts.

In addition to day-to-day services, Commercial Aviation Services has pioneered digital tools to help speed airplane troubleshooting and manage the entire maintenance process of an airplane. One such tool, Airplane Health Management, is an integrated family of information products and services that collects, monitors and analyzes real-time airplane performance data, helping identify future maintenance needs.

Commercial Aviation Services oversees subsidiaries Aviall, AeroInfo, Continental DataGraphics, Inventory Locator Service and Jeppesen, as well as joint ventures Aviation Partners Boeing and Boeing Shanghai Aviation Services.

Assembly of Boeing jetliners is supported by an extensive global supply chain. At an enterprise level, Boeing leads 5,400 direct supplier manufacturing sites worldwide. Supplier management representatives are based both regionally and on-site to ensure integration and alignment throughout the Commercial Airplanes’ value stream.

“The success of our supply chain is directly related to the success of Boeing,” said Ray Conner, vice president and general manager, Supply Chain Management & Operations. “Strong relationships with our suppliers are just as important as our relationships with our customers. We are all linked, so it’s really in our best interest to work seamlessly together to execute the same plan and strategy.” ■

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PHOTOS: (Above, from left) An employee of Boeing subsidiary Aviall uses a bar code scanner to verify a shipment to one of the company's 40 global stocking locations. AVIALL A Boeing Shanghai technician works on an aircraft engine at the maintenance, repair and overhaul facility. BOEING