

By Maureen Jenkins

urkey literally exists in two worlds, as the Bosporus waterway divides the city of Istanbul, with one portion standing in Europe, the other in Asia. What a perfect analogy to present-day Turkey, a proudly Muslim but staunchly secular country that reveres its storied past while striding confidently into a technologically capable, global future. The country views its East-meets-West orientation as a strategic

Go anywhere in Turkey, from its most cosmopolitan cities to its smallest towns and you see the influence of Mustafa Kemal Atatürk, who in 1923 transformed the nation into a secular republic. His likeness and legacy are ever-present, still guiding the country's course more than 80 years after the modern state's founding. In the midst of accession negotiations with the expanding European Union, Turkey has been evolving to enhance its bid for full membership. And one byproduct has been the country's economic liberalization and proactive policy of pursuing foreign investment.

"We can generate new jobs, new technologies, new visions," said Alpaslan Korkmaz, president of the new Investment Support and Promotion Agency of Turkey. His job—one that reports directly to Prime Minister Recep Tayyip Erdogan—is to present investment opportunities to the global business community and serve as a "onestop shop" that makes it easy for foreign companies to thrive here.

the future

Welcome to Turkey, a nation that bridges East and West—and is working to instill high-tech skills into its young population. It's a nation where Boeing is strengthening long-lasting partnerships.

Majestic mosques and minarets dot the landscape of Istanbul, Turkey's largest city. With its European and Asian sides linked by a bridge across the Bosporus strait, Istanbul represents the country's proud past and its global future - a future Boeing hopes to help shape through long-term partnerships.

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A look at the factors that make Turkey an important market to Boeing.

: How a Commercial Airplanes Lean Enterprise Office representative helped spread Lean practices to BCA's Turkish partners.

Turkey is under contract for four Peace Eagle airborne early warning and control aircraft. Yet Boeing is looking for other ways to support the country's evolving

Did you know Turkey is among the 10 most popular destination countries for international tourists? That makes Turkey poised for air-travel growth.

Boeing's community-support activities in Turkey are wide-ranging.

Who are some of the people in Turkey working for Boeing?

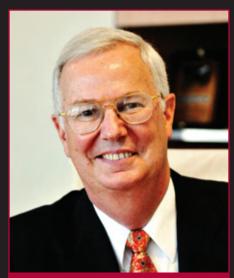
Over the past six years, he said, foreign direct investment in Turkey totaled \$55 billion. "We are young, motivated and have worldwide experience," he said. "Turks like me come back to this country. Why? Because they see the future."

With about 400,000 university graduates annually and an overwhelmingly young population (65 percent are 34 and under), the country is working feverishly to equip its labor pool with high-tech skills valued in the global marketplace.

And that's where Boeing, which has done business in Turkey since the 1960s, plays a role by teaming with world-class, in-country aerospace industry suppliers. As it does around the globe, Boeing takes a cross-enterprise approach to doing business here, with Commercial Airplanes and Integrated Defense Systems offering 21st-century solutions to their private-industry and government customers. These include Istanbul-based Turkish Airlines and its new low-cost subsidiary AnadoluJet, and low-cost carrier Pegasus Airlines. They also include the Turkish Air Force, whose AEW&C (airborne early warning and control) Peace Eagle program takes a true "one Boeing" approach, featuring a Next-Generation 737-700 and a variety of IDS advanced radar, communications and navigation systems on a sophisticated military platform.

"We're looking for a long-term partnering relationship, not a simple supplier relationship," said Boeing Turkey President Greg Pepin,

BOEING FRONTIERS



Boeing Turkey President Greg Pepin is versed in Turkish culture and fluent in the Turkish language. He sees his role as helping create connections between Boeing and Turkish industry. ALI UNAL PHOTO

who joined the company as country director in 1999.

He sees his role as one that helps Boeing business units navigate Turkish bureaucracy-and that helps build bridges between Boeing and Turkish industry. "We're developing those based on capabilities and technologies that enhance both Turkish industries and Boeing." The goal: a relationship built on "equal respect, equal exchange of ideas, equal footing." It's why Boeing's a high-level sponsor of the American-Turkish Council, where corporations work to initiate and facilitate investment and trade between the two countries and to boost commercial, defense, technology and cultural relations.

But it takes more than technologically advanced products and programs to build these bridges. Pepin, who's lived for decades in Turkey as a U.S. Army officer as well as a Boeing executive, brings personal relationships and fluent grasps of both Turkish language and culture to the table on Boeing's behalf.

"The advantages it brings are the longterm customer knowledge," he said. "I think [knowing] the language opens up many more doors. From the customer side, they feel comfortable with you because they know you. You're not just here for business, but you want to be here. They also trust that you do understand them and their system, and trust you'll be able to help them work with Boeing."

Today, Boeing employees living and working in Turkey are embracing the local culture,

working to build bridges with supplier-partners such as Turkish Aerospace Industries (TAI) and HAVELSAN that stretch beyond the office and factory floor.

"The Turkish people are very proud, have a very strong national sense—and that rubs off on you. You appreciate it," said Doug Proctor, a Kent, Wash.-based member of the AEW&C Peace Eagle team. An Overseas Mod Support IPT Leader who's responsible for the program's subcontract work with Turkish Aerospace Industries, he wears a TAI pin along with his Boeing badge. "As you work with them more, you gain a sense of their identity.'

And it's that Turkish identity—and the tireless quest for upward mobility and global acceptance—that's at the heart of doing business in this rapidly changing land.

"The keys to future success," said Boeing International President Shep Hill. "will be to ensure we act as 'one Boeing,' working as a single team aligning Boeing business objectives and Turkey's requirements.

"If we continue and strengthen our approach in this regard, Turkey will remain an important focus of both our growth and productivity plans into the future." ■

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Turkey at a glance

Official name: Republic of Turkey Modern state founded: Oct. 29, 1923

Location: In southeastern Europe and southwestern Asia bordering the Black Sea, and bordering the Aegean Sea and the Mediterranean Sea

Area: 780.580 square kilometers (301.384 square miles), slightly larger than the U.S. state of Texas

Population: nearly 72 million (July 2008 estimate)

Median age: 28.3

Official language: Turkish

Religion: More than 98 percent Muslim Government: Secular, democratic

Capital: Ankara

Other key cities: Istanbul, Izmir, Antalya, Adana Gross domestic product, 2007: \$663.4 billion Estimated GDP growth rate, 2007: 5 percent

Key industries: Textile manufacturing, petroleum refining, agricultural processing, tourism, automobiles, electronics, mining, steel, construction

Major export partners, 2006: Germany, United Kingdom, Italy, United States, France, Spain Major import partners, 2006: Russia, Germany, China, Italy, France, United States

Military spending as part of GDP, 2005: 5.3 percent

Sources: CIA World Factbook, Investment Support and Promotion Agency of Turkey



Suited to a

Boeing, Turkish Technic share Lean lessons—and cultural traditions

By KATHRINE BECK

hey are the warmest people," said Joy Cassady of her Turkish teammates. "The country is beautiful. There is so much history! And the food!"

Cassady, who works in the Commercial Airplanes Lean Enterprise Office, has been traveling to Turkey since 2006 as the team leader for the Lean consulting that Boeing has provided to Turkish Technic. A subsidiary of Boeing customer Turkish Airlines, Turkish Technic delivers maintenance, repair and overhaul services to its parent company and other global customers on a 24-hours-a-day basis from two vast hangars at Istanbul's Atatürk airport.

Cassady has conducted Lean activities at Turkish Technic's heavy maintenance and line maintenance operations, back shops, stores, shipping and receiving, engineering and planning offices. Her team has taught Lean tools such as 5S (sorting, simplifying, sweeping, standardizing and self-discipline), Accelerated Improvement Workshops, Value Stream Mapping and Production Preparation Process (3P). Cassady said that although each tool has a different purpose, all are used to create flow and a just-in-time pull production system.

"Our goal is to help Turkish Technic learn how to identify and eliminate waste throughout the entire value stream, to improve their turnaround times and reduce costs," Cassady said.

Cassady's last visit, in May, included a one-week 3P class, followed by two 3P workshops. During the workshops, one team built a prototype for a right-sized X-ray stand for heavy maintenance. (X-ray technology is used on various parts of the airplane.)

Turkish Technic had been mounting the equipment on a heavy tripod, which wasn't well designed ergonomically and was bigger than it needed to be. The team came up with a foam and cardboard mock-up of a right-sized, ergonomically designed piece of equipment.

Another team built a right-sized ultrasonic cleaning machine for fuel pump parts. This equipment cleans parts by submerging them in a vibrating tank filled with cleaning solution. Before, they had used a shared tank line that was much too big for fuel tank parts, and it was stored far away from where it was used. Now, Turkish Technic has a dedicated, right-sized machine, about the size of a dishwasher, within the fuel pump shop so that equipment isn't traveling back and forth.

"We use the method of learning by doing," Cassady explained. "We practice using the tools where the actual work is being done."

Aeronautical engineer Yuksel Bozkurt is Quality Improvement and Productivity chief engineer at the Istanbul Turkish Technic Maintenance Center. She said that 3P is "a tool to improve our processes and work area—a different kind of tool for us," adding that participating mechanics, engineers and managers enjoyed the 3P process and are "really supporting our lean journey."

Turkish Technic has six engineers working full-time on lean implementation and plans to train 120 lean agents—four for each department—in two years. Turkish Technic also attended the Boeing Fall Lean Conferences in 2006 and 2007 to share best practices with other Boeing customers and partners.

"We have good relations with the consultants on the Boeing Lean team," Bozkurt said, adding that multiple team members add value to the process. "We have a chance to see each of them in every workshop, and it's a nice experience to work with all the different consultants."

Cassady, who leads Lean activities all over the world, said the Turkish workshops have a special touch that she really enjoys. During breaks, Turkish tea is served to all in bell-shaped glasses that are miraculously not too hot to handle, accompanied by small spoons and sugar cubes. "Tea time is very important," she said.

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Boeing Lean consultant Joy Cassady (second row kneeling, right) took part in a visit to Turkey in May to share Lean practices with a Turkish Technic team. TURKISH TECHNIC PHOTO

Peace Eagle and more



Turkey puts a premium on having forces that are strong yet agile. That's where Boeing comes in

By Maureen Jenkins

ant to see Boeing's cross-enterprise teams put pedal to the metal? Visit Turkey, home of the AEW&C (airborne early warning and control) Peace Eagle program. It features a Next-Generation 737-700 and a variety of Integrated Defense Systems advanced radar, communications and navigation systems to create a sophisticated military platform for the Turkish Air Force.

Turkey is currently under contract for four Peace Eagle aircraft, with Nos. 2, 3 and 4 undergoing modifications at Turkish Aerospace Industries' (TAI) Ankara factory. "Green" Peace Eagle No. 2 made its long-awaited first flight last month, with No. 3 soon after.

"The Turkish Air Force has done a lot of its planning around having [these] assets," said Mark Ellis, Peace Eagle program manager.

Political realities in Turkey's part of the world mean that strong yet agile defense forces are key. While Boeing views Peace Eagle as a foundation of IDS business here, it's also signed and extended a memorandum of understanding with software and systems producer HAVELSAN on regional and global ballistic missile defense. In fact, HAVELSAN is a key Peace Eagle supplier and maintains a colocated codevelopment office in Kent, Wash.,

allowing the company's and Boeing's Peace Eagle teammates to use a Lean approach to jointly produce Peace Eagle software. Conversely, about 30 Boeing employees work at HAVELSAN's Ankara headquarters.

Although Boeing and its heritage companies have had a defense presence in Turkey since the 1970s, Boeing continues to look for ways to support the country's evolving needs.

"We've got certainly some opportunities ahead of us, especially in terms of the CH-47 Chinook," said Howard Berry, regional manager/ Near East for IDS Business Development. "The Turks are taking a strong look at it, [as it] brings capabilities they don't have today. We not only have a healthy portfolio in place, but there's potential for growth across the spectrum."

Joe McAndrew, IDS vice president of Business Development for Europe, Israel and the Americas, said he sees opportunities for "performance-based logistics for Boeingbuilt and other platforms" as potential growth areas in the Turkish defense market, as well as network-centric operations.

And Turkey is eager to partner with multinational aerospace firms. "The longer the American engineers and managers stay here, the better they communicate with TAI's team," said Bekir Ata Yilmaz, head of TAI's Aerostructure & Space Group.

"What the Turks bring to the table is strong engineering expertise, which makes our lives easier," McAndrew said. "We use Turkish engineering and know-how, whether it's software or hardware. Today, when you do business in Turkey, you have to be prepared to leverage that expertise."

Indeed, HAVELSAN General Manager Faruk A. Yarman noted that the nation has evolved from a market for aerospace products to one that wants to participate in production—to one that "wants to be part of generating high-level skills for our participation in the program."

That's increasingly the way business is done globally, with governments and private industry requiring in-country investment from multinational company partners.

But ultimately, Boeing-Turkish partnerships mean improved opportunities for both sides. In fact, Ellis said, one of the Turkish defense procurement agency's "key goals, as much as capability, is [advancing] Turkish industry. They want to be able to sustain this [program] 30 years into the future."

And this work boosts Boeing business in the United States. "There are 1,000 people [in the United States] working on AEW&C in very key high-skilled jobs," Ellis said. "That doesn't even count work that will go into making the 14 737s at BCA (for AEW&C aircraft for Turkey, Australia and South Korea). It's a broad mix of skill bases as a result of these international sales. We are able to improve our Boeing processes to make us more competitive."

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Turkish Aerospace Industries engineer Ersen Koc works on a 737-700 being modified into an AEW&C/Peace Eagle platform.

TURKISH AEROSPACE INDUSTRIES PHOTO

Tourism, bigger fleets spur traffic growth among Turkish carriers

By Maureen Jenkins

n Turkey, you'll find renowned historical and biblical treasures, such as the legendary ruins of Ephesus and mythical Mt. Ararat. You'll also see charming villages. And let's not forget the beaches along the Mediterranean Sea.

It's an understatement to talk about how crucial tourism—especially from nearby European travelers—is to the Turkish aviation market. But unlike many struggling global aviation markets, Turkey is poised for growth.

In 2005, according to the Investment Support and Promotion Agency of Turkey, more than 20 million tourists visited the country, mak-

European and first Turkish carrier to order the Next-Generation 737-900ER)—are multiplying travel options. Scheduled service by Turkish carriers has more than doubled over the past 10 years, with 9 percent growth annually.

All the while, Boeing Commercial Airplanes has partnered with the country's airlines, working alongside to help them achieve their ambitious growth goals. And the 737 is the backbone of many airlines. All 17 Pegasus airplanes are 737s; the single-aisle jet represents about half of THY's fleet.

In Turkey, "in order for you to do business, you have to be a good friend and establish trust," said Aldo Basile, Commercial Airplanes vice president of Sales/Europe, who for the past 19 years has served as a sales director in Turkey. (New Sales Director Steve Aliment replaces Basile and Jean Thouin, who this summer became sales director for Air France KLM.)

"Being good friends, being close to the air-

combine Western efficiency with Eastern hospitality," Kotil said.

In June, Marlin Dailey, Commercial Airplanes vice president of Sales for Europe, Russia and Central Asia, reported the Turkish aviation market would need about \$21 billion worth of 250 new airplanes over the next 20 years. The company's Current Market Outlook also forecasts Turkey increasing its market share in long-haul intercontinental flights.

"It's been a cultural shift as people [in Turkey] are getting used to the comfort air travel can provide. There's still a big potential for growth," said Sertaç Haybat, Pegasus general manager, who expects to increase the frequency of international flights on his airline's most popular routes. "Within the next five years, we want to have 30 planes."

Also playing a major part in the nation's aviation growth is Turkish Technic, a leading re-



ing this nation the world's ninth-mostpopular holiday destination. Its largest carrier, Turkish Airlines (THY), is expanding both its domestic and international routes and recently joined the global Star Alliance. In late April, THY launched AnadoluJet, a low-cost subsidiary providing regular service to 20 major cities and underserved small towns across Turkey. Pegasus Airlines, a whimsical low-cost carrier that's become as known for its ad-splashed liveries as for its friendly crews and affordable fares. also has aggressive expansion in its sights.

And a spate of other airlines—including all-Boeing SunExpress (a joint THY-Lufthansa venture) and Sky Airlines (the first

line, understanding the airline—it's a long-term situation," Basile added, noting that Boeing has about 50 percent of Turkish market share.

But it's market liberalization that's helped spur Turkish aviation growth. Today, the government owns just 49 percent of flag carrier THY, allowing it to compete for passenger traffic. "Without competition, with government protection," said THY President and CEO Temel Kotil, "this means you are going to school but with no exam."

The airline wants to capitalize on Istanbul's location and THY's growing fleet to move passengers through Turkey on their way to the Middle East and Africa. "We're saying we

gional maintenance, repair and overhaul facility with hopes of becoming one of the world's top five MRO centers within 10 years. With annual revenues of \$360 million, this independent company aims to achieve a 50-50 split in work for THY and third-party airlines.

"Our strategy is to go in the high-income areas—assembly and disassembly," said Turkish Technic General Manager and Board Member Ismail Demir. Next up: a new MRO facility called HABOM, this one housed at Istanbul's Sabiha Gökcen International Airport. for which Demir and his team are actively seeking investment.

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bassion to help

Boeing's efforts to support Turkish communities range from backing music fests to funding schools

By Maureen Jenkins

oeing Turkey proves that it takes more than just manpower and money to help transform a country where one does business. It takes real passion.

From Commercial Airplanes' long-time sponsorship of the Istanbul Music Festival to archaeological digs to current Global Corporate Citizenship-funded school renovations, Boeing is a full-fledged partner of its host country when it comes to projects that make a difference in the lives of Turkish citizens. And much of it relates to some form of education, of broadening the minds and perspectives of those who call this country home.

Over the past eight years, Boeing has undertaken more than 50 education-related projects in 19 Turkish cities—funding computer and science labs, donating library books and sports equipment. It's helped sponsor more than 30 arts and culture projects across the country. It's helped renovate and provide medical equipment for more than 10 hospital projects in five different cities. And when natural disasters hit this earthquake-prone land in 1999, Boeing jumped in to assist Turkish hospitals and schools with the painstaking work of rebuilding.

But why?

"The first time you help somebody, it's because you want to help," said Boeing Turkey President Greg Pepin, who along with Office Manager Ayça Karasu gets personally involved in allocating GCC funds across Turkey. "The second time you give, it's because you care."

Pepin estimates that between 10,000 and 20,000 Turkish schoolchildren have benefited from Boeing donations to the country's schools. He and his team follow up to ensure that 100 percent of Boeing-donated funds for schools and women's and children's hospitals go toward direct aid, not administrative costs.

"That's why I like doing things with children," he said. "Give 'em a chance and you'll be surprised at what they can do."

■

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- Greg Pepin, Boeing Turkey President





Ankara University Department of Pediatrics

Since 2003, Boeing has donated diagnostic equipment to this facility. Doctors here say these needed devices are saving lives. Standing next to a Boeing-provided infant incubator and warmer are Dr. Begum Atasay (left) of Ankara University and new mom Ozlem Uzun. ALI UNAL PHOTO

Çatalhöyük archaeological dig One of the world's largest archeological projects is at Çatalhöyük, a town believed to be 9,000 years old. Over the past decade, Boeing has helped fund excavation projects there. In 2007, the company sponsored a yearlong exhibition of this site's latest finds at the Anatolian Civilizations Museum in Ankara.



Alerhaba (Hello) from Turkey

What's it like to live and work there? These Boeing employees offer a glimpse



Years at Boeing: 28 (11 in Turkey)

Current job involves: Helps 14 airlines and three Maintenance, Repair and Overhaul facility customers in Turkey and northern Cyprus solve aircraft problems, from engineering to technical issues.

Why he left the United States to work in Turkey: Born in Istanbul but raised and educated in the United States, Assigned to Turkey while working for McDonnell Douglas in 1997.

What makes his job easier: "When you walk through that door, you have no idea what you're going to face. But Boeing really supports our requests from here to assist customers. Customers always come back and tell us how appreciative they are with our attention to detail support and how we go that extra mile."

Why he feels like a company "ambassador": "When you tell [Turks] you work for Boeing, they're very interested and want to ask questions. A regular 'hello' turns into a half-hour conversation."



Office manager, Boeing Turkey office, Shared Services Group

Years at Boeing: 9

Current job involves: Supporting Boeing Turkey President Greg Pepin and Shared Services functions, and serving as Global Corporate Citizenship focal.

Challenges of being an international Boeing employee: "Sometimes, Boeing [employees] think these global [offices] are just like the U.S. But they're learning every country has [its] own customs, regulations, culture, history. When they start to travel, they experience it and we grow together.

Why she's proud to work for Boeing: "I was so impressed when I was in Seattle. We know that Boeing is big, but when you see it with your eyes, the big factories ... It's beyond my limits. You're thinking it's very good for humanity, this technology and manpower, this organization."

What she enjoys most about her work: "GCC is my favorite hat because I'm helping kids. I'm helping the future, I believe. And if one of these kids opens his eyes and wants to be an engineer or a scientist or a doctor, it will carry them to a new dimension."



Administrator Officer, AEW&C Peace Eagle Program

Years at Boeing: 4

Current job involves: Doing English-Turkish translation of Peace Eagle contracts; serving as backup office manager

Why first interested in Boeing: "I wanted to work in a company that has got a worldwide reputation, that is respecting the employees. I find the feeling that I always have the opportunity to upgrade myself."

Challenges of being an international Boeing employee: "Mostly communicating because of [10-hour] time differences" between Ankara and Seattle.

How she maintains ties with colleagues around the world: "Actually, it's not very hard for me because my team [is] here frequently. When I go to Seattle, I feel that connection with my team. They make me feel like a part of the

> What she enjoys most about her work: "From the beginning in this office, I always felt like I was in a family. When Ayça is gone and Mr. Pepin is gone, they trust me that I can handle" managing the office.

> > TOP: PHOTO COURTESY OF TURKISH TECHNIC CENTER, BOTTOM: ALI UNAL PHOTO

