

Boeing Frontiers

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THANKS A **MILLION**

A recent **U.S. Air Force C-17 Globemaster III** mission put the fleet of airlifters **at 1 million hours of flight**. Here's a look at this milestone mission—and at what this achievement means to the people on the C-17 program.

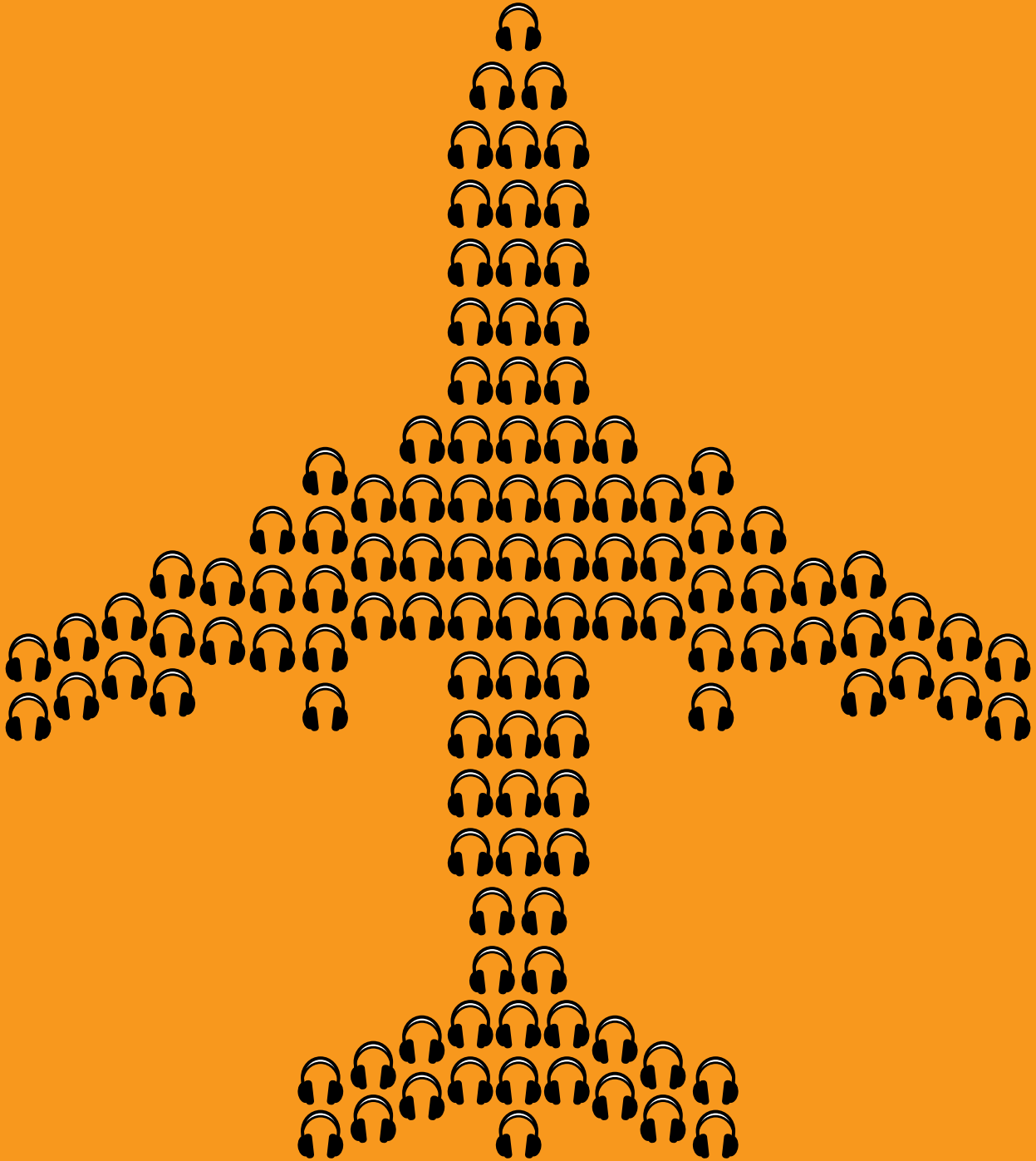
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ON THE COVER:
C-17 Globemaster III
Photo by Kevin Flynn

Boeing Frontiers



GINA VANATTER PHOTO

COVER STORY **HOUR RECORD** 12

The fleet of C-17 Globemaster III military airlifters recently reached 1 million hours of flight. Larry West (above), a liaison planner with the C-17 program in Long Beach, Calif., is among the many C-17 teammates who are proud of this achievement: “I love the work, the people (I work with) and our commitment to delivering a good product to the U.S. Air Force.” Read more about the million-hour mission—and Long Beach’s reaction—inside.

A COOL POOL

30 Many donations can add up to big support. That’s what makes the Employees Community Fund a powerful way of providing help to the communities where Boeing employees live and work. Here are some examples of how this support has helped organizations in these locations.

FEATURE STORY

INTEGRATED DEFENSE SYSTEMS

Silence is golden

18 There's not much different about Boeing employees who work on classified programs, except for one thing: They can't tell you what they do on the job. Here's a look at what it's like to be on a classified program, where people are on the front lines of U.S. security.

The right mix

20 Combine the MH-47 Chinook with the latest in technology and you get Boeing's entry for the U.S. Air Force Combat Search And Rescue aircraft competition.

100 percent in favor

21 As a sign of how well Boeing-built hardware and software are operating on the International Space Station, Boeing recently earned its sixth straight 100 percent score determination for on-orbit performance from NASA.

COMMERCIAL AIRPLANES

Let's get moving

25 The 777 production line in Everett, Wash., is transitioning to a moving line. The 777 team is using lessons learned on other programs—and input from its employees—to expand the moving line concept.

Parts—and partners

26 Commercial Airplanes' Supplier Relations project aims to have suppliers better understand Boeing's production processes. That gives supplier partners more insight into Boeing's business requirements.

Tech support for 787

27 Technologies such as electronic documents and wireless communications have become ubiquitous. The Boeing 787 Dreamliner will use these technologies to improve operational efficiencies, cut maintenance costs and improve the traveling experience for passengers.

Long Beach, long history

28 This month's delivery of the 156th and final Boeing 717 will mark the last commercial airplane built in the storied Long Beach, Calif., Douglas factory. Yet the Long Beach commercial jetliner legacy will live on.

25

Movable tooling has replaced fixed-monument tooling around the 777 aft fuselage sections in Systems Installation. Implementing the Boeing Production System will result in a safer workplace, where workers will be able to do their jobs better with fewer interruptions.



ED TURNER PHOTO

FOCUS ON FINANCE

Closing fast

36 The quarterly closing process turns loads of data into a picture of Boeing's financial position. Thanks to the improvement known as Finance Transformation, this process took only five days in the first quarter of 2006—much less than the month it used to take.

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Lean+ helps us take advantage of our bright future

Alan Mulally

Executive vice president, The Boeing Company
Boeing companywide sponsor, Lean+ initiative
President and CEO, Boeing Commercial Airplanes

Right now, Boeing may be in the best position we've ever been in.

Thanks to everyone's hard work, Integrated Defense Systems has an industry-leading backlog and Commercial Airplanes is posting record orders. We've improved quality and productivity, and shared some of these gains with our customers to win new business. Our stock price shows that investors really value our plan.

Now we need to bring this plan home, on time and on cost. That requires everyone to stay focused on increasing productivity so we'll deliver on all the commitments we've made to customers.

Our four companywide initiatives are tools to enable that.

Jim Albaugh (sponsor of the Global Sourcing initiative), James Bell (Internal Services Productivity sponsor), Jim Jamieson (Development Process Excellence sponsor) and I (Lean+ sponsor) are working together to incorporate all four initiatives into the daily operating rhythm of our organizations.

All the initiatives are interconnected, with Lean being the foundation of all four.

We already know about Lean since we've been on this journey for more than a decade. We've increased quality and productivity by relentlessly eliminating waste and focusing on continuous quality improvement. Working with our supplier partners and using our resources more effectively, we've done great things, such as reduce 737 final-assembly time by 50 percent since 1999 and decrease total cost for the C-17 Globemaster III by 25 percent since 2002.

Now we intend to take Lean to the next level through the Lean+ initiative by replicating and leveraging these successes

"Using these initiatives, we'll continue improving quality and productivity, meet all the commitments we've made and build on the momentum we gained in 2005."

—Alan Mulally, Boeing companywide sponsor, Lean+ initiative

MARIAN LOCKHART PHOTO



throughout Boeing, across our supply chain and throughout our customer base. Techniques that have worked beautifully in factories will produce even greater results as they move into office areas and are embraced by our business partners.

An excellent example of replicating Lean successes is what we've done with moving assembly lines across the company. We started with the 717 and built upon that with the Next-Generation 737. Now we're expanding this concept by transforming 777 production to include a moving line, beginning with systems installation.

This concept is also well in place at IDS, where pulse production (the precursor to moving assembly lines) is being used for the F/A-18, the Apache, the V-22, the Chinook and major subassemblies such as C-17 engine pylons. This is increasing productivity and lowering costs on these key programs.

These types of improvements can reach far beyond our factories. The sponsors of our four initiatives encourage everyone to find ways to apply Lean tools and principles to our daily work, and create the greatest competitive advantage for Boeing. Everyone should establish targets for eliminating rework, improving flow time, and increasing quality and productivity. This is how we'll improve QCDSM (Quality, Cost, Delivery, Safety and Morale) and embed Lean into the way we conduct business every day.

Remember, these initiatives aren't a short-term effort. They're an expansion of things we've already learned about, are already doing and will continue to do. As we grow and become more productive, our competition is only going to get more aggressive. So we'll remain focused on continuously improving Boeing every year, forever, making the journey fun along the way.

At Boeing we do a lot of big things, but it kind of comes down to doing a few things really, really well. Using these initiatives, we'll continue improving quality and productivity, meet all the commitments we've made and build on the momentum we gained in 2005. That will generate a bright and prosperous future for all of us. ■

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Remember the Extender

With the imminent departure of the 717 commercial airplane line from Long Beach, Calif., it seemed appropriate to reflect upon one of the many “great times” that have occurred at the Douglas Aircraft facility here.

Notably, in March 1981, one very memorable piece of aviation history occurred: the first delivery of the KC-10 Extender to the U.S. Air Force. This past March marked the 25-year anniversary of that first KC-10 delivery from Long Beach, and the aircraft continues to amaze the Air Force 25 years later.

Many of the newer employees at Boeing in Long Beach are not aware a military derivative of the DC-10 was ever made here, or that it has consistently been a model of tanker/cargo success for the Air Force. Our Air Force customer continues to be delighted with its performance as it serves as a workhorse for current war efforts in Iraq and Afghanistan—not to mention numerous prior campaigns it participated in (operations Desert Shield and Desert Storm, Panama, Libya, numerous humanitarian missions, VIP transport).

Those KC-10 delivery ceremonies may be a distant memory to most of us. But our product continues to fly among the very best.

—Reg Harper
Long Beach, Calif.

Don't forget Mesa

I receive *Boeing Frontiers* magazine and enjoy the contents. The big disappointment that I have with the magazine is the lack of recognition to those who support the Apache helicopter program. The last two issues make no mention of a program that is alive and well.

Letters guidelines

Boeing Frontiers provides its letters page for readers to state their opinions. The page is intended to encourage an exchange of ideas and information that stimulates dialogue on issues or events in the company or the aerospace industry.

“Those KC-10 delivery ceremonies may be a distant memory to most of us. But our product continues to fly among the very best.”

—Reg Harper, Long Beach, Calif.



I retired from Boeing in 1999 after serving 14 years as the Hughes Helicopters/McDonnell Douglas/Boeing lead resident engineer for the Apache Program at Teledyne Ryan Aeronautical Co. in San Diego, which produced the Apache fuselage. I had the op-

portunity to work in the program's prototype days and then went to Mesa, Ariz., to work on other aspects of the program.

I am very proud of the years I spent supporting a successful program. But I am disappointed in the lack of press that *Boeing Frontiers* gives these dedicated workers.

I know that you do your best, but it seems that each facility should get equal press. Mesa, it seems, is behind the power curve when ac-

complishments, recognition and press is concerned. I think we played an important part in the history of Boeing. It should be duly rewarded, as words are cheap but important to those who produce the product.

—C. Neil Vann
San Diego

Editor's note

This edition of *Boeing Frontiers* includes the final article written by Rick Roff, longtime editor of *The Boeing News*, who died of a heart attack at his Seattle-area home on April 14. The article can be found on Page 26.

Roff, 54, started his career as a newspaper reporter and sports editor in Washington state. He joined the *Boeing News* team in 1988, and served as editor from 1995 through 2000. During that time, he touched thousands of employees, customers, suppliers and journalists interested

in the Boeing story. Roff also led *The Boeing News* into the electronic age, transforming the weekly newspaper into a daily online publication.

Known for his easygoing way and gentle humor, Roff always found time for friends, family and the community. *Boeing Frontiers* offers this mention to recognize him for his many accomplishments.

The opinions may not necessarily reflect those of The Boeing Company. Letters must include name, organization and a telephone number for verification purposes. Letters may be edited for grammar, syntax and size.

A real trailblazer

Meet Micky Axton, the 1st B-29 woman pilot

By EVE DUMOVICH

Eighty-seven-year-old Mildred “Micky” Axton is proud to be a Colonel in the Commemorative Air Force. She said she’s “tickled pink” to be part of aviation history.

In 1929, she was flying aboard a Curtiss Jenny. In 1940, she earned her pilot’s license and was the only woman in her class in the Civilian Pilot Training program at Coffeyville Community College in Kansas. In 1943, she was one of the first three Women Airforce Service Pilots to be trained as a test pilot as well as a ferry pilot.

In 1944, she was the first woman to pilot a B-29.

At the time, she was a member of the Engineering Flight Test Unit for Boeing in Wichita, Kan., analyzing flight data from B-29s in order to improve their performance. On May 4, 1944, she was one of the crew of nine aboard “Sweet Sixteen,” the 16th of 1,644 B-29s rolled out from the Wichita plant.

“I was back in the aft flight blister when Elton Rowley (chief of engineering flight test) called back over the intercom and said, ‘Micky, how’d you like to come and fly this thing?’ I was just absolutely in hog heaven!” she recalled.

“So I put my parachute on my back and crawled through the tunnel which was over the bomb bay, to the front. He gave me the left seat and I flew the plane,” Axton said. “The problem was, it was all so top secret. I could only tell my husband.” Rowley did write a letter, however, verifying her feat.

Born, Jan. 18, 1919, in Coffeyville, Kan., Axton took her first plane ride when she was 9 years old in the Curtiss Jenny owned by the barnstorming Flying Circus Inman brothers, who lived down her street. She learned to fly in 1940 while working as a chemistry teacher at Coffeyville Community College.

In 1943, although she was married and the mother of 1-year-old Carol, she joined Women Airforce Service Pilots (WASP). Her motivation came from a letter she received from her brother Ralph, who was serving as a U.S.



In this 1991 photo, Micky Axton flies the restored B-29 known as “Fifi” from Garden City, Kan., to Wichita. During World War II, Axton was one of the first three Women Airforce Service Pilots to be trained as test pilot as well as a ferry pilot. In 1944, she became the first woman to pilot a B-29.

fighter pilot in Guadalcanal.

“He told me that 18 of the bunch of 20 he went down with had been killed. I knew I had to do something to help,” she said.

Axton made arrangements for her parents to take care of Carol. With the full support of her husband, Wayne, she headed to Sweetwater, Texas, about 200 miles west of Houston, for the WASP training program, class of 43-W-7.

“If you have a dream ... there are a lot of older people that will point you in the right direction.”

—Micky Axton

“After the basic trainers, we went on to North American’s AT-6, which was a fighter-trainer—we just loved that plane—and the twin-engine Cessna,” Axton said. “We learned to fly on instruments at night because we were going to fly everything the Air Force had. We tested and ferried planes. Some of us instructed. I became one of the first engineering test pilots.”

Axton, assigned to Pecos Army Base, Texas, resigned from WASP in April 1944, and returned to Kansas to work for Boeing when her mother became too ill to take care of Carol.

In any case, the controversial WASP program was deactivated Dec. 20, 1944. Its records were sealed and stored as classified material for more than 30 years. It was not until May 21, 1979, that WASP members received retroactive status as military veterans. During their service, they delivered more than 12,000 aircraft and logged more than 60 million miles in more than 70 types of airplanes, including Douglas and Boeing bombers. Eleven were killed during training and 27 more died during active duty.

Today, Axton is active with a variety of aviation organizations and has been a featured speaker at dozens of air shows and events. In October 1991, she flew the B-29 again, taking the restored B-29 “Fifi” to the Commemorative Air Force in Wichita. In 1998, the Jayhawk Wing of the Commemorative Air Force named its restored World War II Fairchild PT-23 “Miss Micky” in her honor. In 1990, she was the first woman guest speaker at the graduation of U.S. Navy and Marine pilots.

Axton believes that anybody can do anything that “they set out to do.” Her advice to young people: “If you have a dream, especially if you want to fly, there are a lot of older people that will point you in the right direction. Just talk to people. You’ll get free help.” ■

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SNAPSHOT

TUNNEL TO TOMORROW Commercial Airplanes recently completed high-speed line development tests on a model of the 747-8F (below)—a member of the new 747-8 family of airplanes—at the Boeing Transonic Wind Tunnel in Seattle. The 3 percent scale model of the 747-8 measures about 87 inches (2.2 meters) long with a wingspan of 74 inches (1.8 meters). This test is one of several wind-tunnel tests the 747-8 program recently concluded, marking another milestone for the program launched in November. Other tests completed include low-speed line development and fine-tuning of the noise characteristics on the fully integrated airframe. More than 3,000 hours of wind-tunnel time have been logged to date in the 747-8 development program.

SHANE MARLANTES PHOTO



QUOTABLE

We see Boeing regaining the deliveries lead in 2008 and never losing it. Boeing will overtake Airbus and stay ahead. Airbus is heading back down to 30 percent market share.”

—Doug McVitie, with the aviation industry consultancy Arran Aerospace, in the April 6 *Seattle Times*

In the end, to sell our products, you have to have a relationship. They have to have trust and confidence in what you’re saying.”

—Larry Dickenson, senior vice president of Sales for Commercial Airplanes, about the importance of personal relationships in conducting business in Asia, in the April 15 *Seattle Post-Intelligencer*. Boeing estimates China will need 2,600 jetliners over the next 20 years.

I have long believed that more C-17s are necessary to meet our nation’s strategic airlift requirements.”

—Sen. Dianne Feinstein (D-Calif.), on a Senate bill that would add funds to pay for advance parts and supplier procurement for more C-17 Globemaster III cargo planes, in the April 5 *Long Beach (Calif.) Press-Telegram*

IAM PROMOTIONS

No promotions listed for periods ending March 31, April 7, 14 and 21.

ETHICS QUESTIONS?

You can reach the Office of Ethics & Business Conduct at 1-888-970-7171; Mail Code: 14-14; Fax: 1-888-970-5330; TDD/TTY: 1-800-617-3384; e-mail: ethicsLine.ethics@boeing.com; Web site: <http://ethics.whq.boeing.com>

Seeking a healthy change

Boeing heats up transformation of U.S. medical care system

The exploding cost of health care in the United States has spurred a lot of discussion. But at Boeing, it's time for continued action, not just talk.

Boeing representatives said the company is committed to taking a lead role in driving positive change in the health-care market, improving both quality and efficiency of care. By working with other large organizations, the company hopes to reshape health care for its own employees, retirees and their families, as well as for the communities in which they live.

"Boeing spends a lot on health care for our employees, retirees and their families (more than \$1.7 billion in 2005), and we want to get our money's worth," said Rick Stephens, senior vice president of Human Resources and Administration for Boeing. "If we're paying for inefficiencies, or if our employees are missing out on the kind of care they need to get and stay healthy, that is a bad return on our investment. We think we can do better."

Boeing believes Lean principles transferred to the health-care delivery system can create lasting improvements—as they do in business operations. A Lean approach

"We believe there is no conflict between quality care and greater efficiency."

—Rick Stephens, senior vice president of Human Resources and Administration for Boeing

looks for ways to improve quality while eliminating or minimizing inefficiency.

According to the National Coalition on Health Care, inefficiency adds about 30 percent to the total cost of health care. For example, many patients receive duplicate or un-

necessary services. And, many patients fail to receive lower-cost preventive and diagnostic care, resulting in more serious conditions that require more expensive care later.

WHAT BOEING IS DOING

Boeing plans to join forces with other forward-thinking employers, labor unions, coalitions and the U.S. government to help drive change in the system and improve the quality and cost-effectiveness of care. Boeing will focus on the following initiatives:

- Consistent and standard measurement of provider performance
- Information sharing among health plans, providers and patients about the quality and efficiency of health-care providers and services
- Advancements in health-care information technology
- Health-promotion programs to encourage people across the United States to adopt healthier lifestyles, participate in preventive care activities and accept the responsibilities of being health-care consumers, not just users

Boeing is taking a first step toward higher-quality and more-efficient health care by introducing performance-based

provider networks. Over the next few years, the company will include this type of network in many of its health-plan offerings.

Performance-based-network health-care providers meet certain measures of quality and efficiency. Regence, one of Boeing's primary health plans, has created a performance-based network of providers. In the Puget Sound area of Washington state, it's called the Regence Select Network.

In developing the network, Regence has taken special care to make sure its evaluation criteria are precise, inclusive and accepted in the health-care industry. The network includes health-care providers who deliver high-quality, efficient care. This is determined by assessing their medical practice patterns and treatment costs for each episode of care as compared to their peers. (The practice and cost data used is based on episodes of care. This includes all related services for a condition from beginning to end.)

"Regence shares Boeing's vision for better health care and better information about care," said Mary McWilliams, plan president, Regence Blue Shield. For more information about the Regence Select Network, visit <http://www.wa.regence.com/boeing/>

Performance-based networks and Boeing's other initiatives are raising the bar in health care. "We believe there is no conflict between quality care and greater efficiency," Stephens said. "After all, poor-quality care costs more in the long run. So by pursuing better, more efficient care, we think everyone can win." ■



ISTOCK PHOTO

Own your career

How PDP has helped Boeing employees plan career moves

Do you know what you want to be doing in two, five or 10 years? What are your passions and interests? What are your strengths? What competencies need improvement?

This month, salaried employees are encouraged to partner with their managers and use the Performance Development Partnership tool to take ownership of their careers by identifying current and long-term development opportunities. Here are two accounts of how employees and their managers have teamed to use the PDP to help the employee identify where he or she wants to go careerwise—and what actions are needed to get there.

FINANCE TO PROGRAM MANAGEMENT

Ben Keaton had a finance background but knew he was ready to make a career change. However, he didn't know how to go about doing it, aside from keeping an eye out for job openings.

When Yvette Winn—Keaton's manag-

er—heard this, she knew what to do: It was time to use the Performance Development Partnership process with Keaton to lay out a five-year plan stating where he wanted to go and what he needed to do to get there. Winn, currently director, Program Management for Commercial Airplanes Finance and Group, hired Keaton at Boeing eight years ago; she's provided Keaton with career guidance during that span.

The PDP for Keaton, a business operations specialist within Commercial Airplanes Program Management in Renton, Wash., mapped out what skills would help him achieve his goals. It also let him specify the skills he was already using, what opportunities there were in his group for him to acquire those additional skills, and what training options were available, both within and outside Boeing, for him to further develop his capabilities.

"Because he saw himself as a finance person, he never saw himself transferring to another discipline," Winn said. But through their development discussions, Keaton realized he had the skills needed for program management.

Keaton admitted that initially he was nervous about talking to his managers about the goals on his PDP because they might consider his interest in moving to another area as a sign of disloyalty. "But once I had a plan together and started doing informational interviews, every person I talked to supported me and offered suggestions on how to make it better," he said.

Although the PDP helped Keaton state a career-development plan, he and Winn stressed the PDP is merely a tool in the

What is Performance Development Partnership?

Performance Development Partnership is an optional enterprisewide process for employees to define their career aspirations and outline and organize their professional development goals and action plans. The process has been enhanced with a Web-based tool that allows for easier exchange of information between employee and manager.

Together with the Performance Evaluation process, PDP is intended to drive effective and improved performance.

career-development kit and not a magic bullet. "Most people see the PDP as a form. I see it as a tool," Winn said. "The piece of paper is not what's most important; it's the conversation that counts."

ENGINEER RECOGNIZES PDP'S VALUE

How valuable does Kareem Muhammad think the Performance Development Partnership process is? He first used it in 2000—when he was an intern at Boeing.

"I saw it would help my career," said Muhammad, a thermal systems engineer with Integrated Defense Systems in El Segundo, Calif.

Muhammad uses the PDP to set shorter-term goals that help set him up for his ultimate aspiration of advancing into program management. He recognized the advantage of getting a master's degree and earned two of them—one in mechanical engineering and the other in systems engineering. He wanted to bolster his communications skills, so he joined Toastmasters, which helps participants improve their speaking skills and better formulate and express their ideas.

Muhammad also wanted to become a thermal project lead for a program. He told this to his manager, who knew what to do to help Muhammad achieve this goal.

"That's the value of the PDP," Muhammad said. "My manager might not have known about this if we didn't have our PDP talk."

Muhammad said the act of listing these goals on his PDP reflects how strongly he feels about the steps he needs to take on his development path. It's one thing to have ideas in your head. But it's another thing to physically create a plan based on these

Kareem Muhammad (left), an engineer with Integrated Defense Systems in El Segundo, Calif., uses the Performance Development Partnership process with Kirk Bryza (right), his manager, to identify what he needs to do to achieve his career goals.



DANA REIMER PHOTO

thoughts—and to measure your progress against this plan.

“I have documentation I can show my manager about what I really want to do,” Muhammad said. “I can communicate this verbally to him in his office, but to have a plan that’s written down, that’s been the most important part of the process. My manager can look at this and see my progress.”

Kirk Bryza, Muhammad’s current manager, noted that Muhammad had been very proactive about using the PDP. “He took to the approach and prepared a lot before he came and talked to me,” Bryza said.

Although Muhammad’s put energy into making the PDP work for him, he said it’s helped tremendously to have his managers engaged in the process.

“If my manager didn’t have interest in seeing that we attained goals, I don’t see the process working,” he said. “You need a manager actively helping you in the areas where you want to improve. The manager steps in to make sure it happens, even if you go work for another group—since that would help you get to where you want to go.” ■

PDP guidelines

Here are some tips to help you prepare for your Performance Development Partnership discussion.

Prepare for your PDP meeting

- Consider areas of strength and a few that need improvement. What development opportunities can you choose that help you sharpen your skills? What can you do to develop a new skill?
- Think about what you would like your career to look like in the next two, five or ten years. Consider the personal values, activities and passions that are most important to you. Through the PDP process, your manager can help you outline a path to achieving your long-term career goals and aspirations.

Discuss and create a PDP plan

Set developmental goals to better understand what you want to achieve and how to go about doing it. The PDP tool provides information on how to write SMART development goals (Specific, Measurable, Achievable, Relevant and Time-phased).

Drive your development

Conduct ongoing development conversations with your manager to drive your development action plans. The Web-based PDP tool offers space for both the manager and employee to comment on the ongoing development process, schedule meetings and document conversations.



MARIAN LOCKHART PHOTO

Everett welcomes president of China

Hu Jintao (center), president of China, sports a Boeing hat given to him by Paul Dernier (right), 777 systems installation supervisor, during the dignitary’s April 19 visit to the Boeing factory in Everett, Wash. Commercial Airplanes President and CEO Alan Mulally (left) hosted Hu’s visit, which included a short tour of the facility and a presentation to more than 5,000 employees and guests. Hu said Boeing is “a household name” in China and that “in the next five years, China will need to add another 600 planes to its civil aviation fleet. In the next 15 years, the demand for new aircraft will reach 2,000 planes. This clearly points to a bright tomorrow for future cooperation between Boeing and China.” Hu visited Everett as part of a U.S. trip that included talks with President George W. Bush.

ISTOCK PHOTO



6 tips to laptop safety

The early April theft of a Boeing laptop that contained an old, unencrypted file of personal data is once again bringing attention to the importance of following recently updated policies and procedures on collecting, storing, transporting and destroying personal data.

Don’t think it can’t happen to you: Theft of laptops or other mobile devices is the No. 1 security breach for U.S. corporations, according to the 2005 CSI/FBI Computer Crime and Security Survey. It can happen to anyone. Following these tips can help you protect your laptop.

- When traveling, get a loaner or “clean” laptop from a Laptop Service Center. Visit <http://wpscsc.web.boeing.com> on the Boeing Web to learn more.
- If you’re traveling abroad, check with Export Management for appropriate licenses.
- Encrypt all sensitive information, especially before leaving on a trip.
- Keep your laptop, removable media (CDs, thumb drives, etc.), Personal Digital Assistants, and BlackBerrys under your control at all times.
- If you can’t take the laptop with you when leaving your hotel room, lock it in the hotel safe or use a cable lock to secure it to a stationary object in the room.
- Try not to leave your laptop unattended in a car. If you must, do it for only a short time and lock it in the trunk when you first get in the car. Never leave it on the seat—or in the car overnight.

One in a million

During a mission in late March, the C-17 fleet hit the major milestone of 1 million hours of flight. Here's a look at this historic mission.

By GARY LESSER

On March 19, a C-17 Globemaster III transporting wounded soldiers out of Iraq had the distinction of flying the fleet's one millionth flight hour. Fueled by unusually high reliability rates and extraordinary demand, the C-17 achieved this milestone more than a year ahead of schedule—evidence of Boeing's ability to deliver the capabilities its customers need. In the words of Gen. T. Michael Moseley, the U.S. Air Force's chief of staff, the C-17 is “an amazing aircraft . . . worth its weight in gold,” supporting the global war on terrorism and providing humanitarian relief around the world.

On its millionth-hour mission, the C-17 tangibly demonstrated Gen. Moseley's sentiments. This is the story of the men and women who flew the historic flight.

KEVIN FLYNN PHOTO

On the millionth-hour mission's first leg, the cavernous C-17 carries 43,000 pounds of cargo to Al Asad, Iraq. Once on the ground, the pallets are quickly offloaded and will soon begin supporting military operations in the region. This view is looking forward, from the C-17's cargo ramp.



KEVIN FLYNN PHOTO

MARCH 19, 5:02 P.M. RAMSTEIN AIR BASE, GERMANY

With the sun setting over southwest Germany, a Mississippi Air National Guard C-17 soars gracefully into the sky, destined for a page in the history books. Nearly 15 years after its first flight, the C-17 worldwide fleet is set to reach a major milestone: 1 million flight hours.

"Being on the million-hour flight is an exciting and humbling experience," says Lt. Col. Jim Conway, aircraft commander from the Mississippi Air National Guard's 172nd Airlift Wing, whose crew is flying the mission. "It's really an honor."

The advanced airlifter flying the million-hour mission is en route to Iraq, where it will drop off cargo and pick up wounded soldiers. On board are an eight-person flight crew, seven members of an aeromedical evacuation team, a dozen news media members and their escorts, a handful of soldiers on their way to fight the global war on terrorism, and a civilian contractor soon to be driving a fuel truck on the dangerous highways of Iraq.

On this flight to Iraq, the C-17 is a giant freight hauler in the sky, carrying 43,000 pounds of cargo to a supply depot. On the way back, it will become a flying hospital, capable of providing wounded soldiers the same state-of-the-art medical care and technology seen in modern intensive care units.

"These soldiers have been through so much, and I want to thank them because of what they're doing," says Capt. Kristen Zebrowski,

a flight nurse with Ramstein's 86th Aeromedical Evacuation Squadron. "They're sacrificing so much, and they say 'thank you' to us. It almost brings you to tears."

At Ramstein's massive flight line, C-17s line up, waiting for their next mission. It's common to see as many as 10 C-17s at a time, the

Long Beach's take on 1 million hours

Boeing Frontiers asked teammates on the C-17 program in Long Beach, Calif., what the million-hour milestone meant to them. Some of their responses are placed throughout this article.



Jesse Jones
Aircraft mechanic

"This aircraft has truly been a workhorse for the Air Force. The fact that this aircraft made a million hours in the time it did definitely proves they've been using it. It's been a good kind of support for the military and they're getting their money's worth out of it. I really hope this program continues. I think it's a great aircraft and I think it would serve the military and the world well with all its capabilities."

GINA VANATTER PHOTO



Onboard the millionth-hour mission, Maj. David Ball, medical crew director for the 791st Expeditionary Aeromedical Evacuation Squadron, checks on the condition of a wounded patient. At this point of the mission, the C-17 is en route to Andrews Air Force Base, Md.

KEVIN FLYNN PHOTO

equivalent of an entire squadron. Aeromedical evacuation missions are flown almost daily from Iraq to Ramstein. In recent months, the Mississippi Guard C-17s have flown almost 80 percent of these “downrange” missions.

“Ramstein Air Base is the gateway to Europe and, thanks to the C-17, the gateway to the world,” says Lt. Col. Andy Molnar, director of operations for the 723rd Air Mobility Squadron at Ramstein.

Molnar calls the C-17 a “promise keeper,” saying it keeps Amer-

ica’s promise to care for sick and wounded soldiers, airmen and marines. “We will spare no cost to make sure that we have returned these volunteer warriors home,” he says. “And that’s the real value of the C-17, as a promise keeper to fathers, mothers, sons, daughters, wives and husbands.”

MARCH 19, 11:53 P.M. AL ASAD AIR BASE, IRAQ

After flying five hours and crossing two time zones, it’s nearly midnight when the C-17 touches down on a 14,000 foot runway at Al Asad Air Base in northern Iraq, about 120 miles west of Baghdad, not far from the Euphrates River.

About four hours into the flight, Master Sgt. Allen Randall, loadmaster on the million-hour mission, makes an announcement: Fasten your seat belts and prepare for descent into Iraq. With the airplane eerily darkened and the pilots using night-vision goggles, this is the most dangerous part of the mission. The airfield is protected by a security perimeter, but insurgents with shoulder-fired missiles can strike at any time.

To make itself less of a target, the C-17 makes an unconventional approach, zigzagging its way into Al Asad. Immediately after landing, the C-17’s huge cargo ramp opens as the aircraft taxis into to-



Allie Tramble
Electrical team leader

“I love to work on the C-17 because what we do affects so many different people, so many families, so many lives. The C-17 can land safely, bring people back home safely, drop food and help people. It’s like a humanitarian product to me. I love that. I love the people here. We have an awesome staff, from management to the hourly and salaried. Everyone is wonderful to work with.”

GINA VANATTER PHOTO

tal darkness. The only illumination comes from runway lights and from the forklifts that unload 21 tons of cargo pallets, including barrels of oil, to support military operations in the region.

An hour and 20 minutes later, the C-17's four engines—with 40,000 pounds of thrust apiece—advance to takeoff power. Suddenly, the parking brake is released and the aircraft hurtles down the runway. The acceleration takes your breath away, enabling the C-17 to use only a fraction of the nearly three-mile-long runway.

The million-hour mission is once again airborne. The aircraft is now headed to Balad Air Base, where it will pick up wounded patients at the Air Force Theater Hospital, about 50 miles north of Baghdad, near the Tigris River.

MARCH 20, 2:01 A.M. BALAD AIR BASE, IRAQ

The C-17 lands in Balad in the middle of the night. The Balad Air Base is a unique creation, a small American town in the middle of the most hostile part of Iraq. Twenty thousand troops are based there, and it's a very temporary home to wounded soldiers on their way to Landstuhl Regional Medical Hospital near Ramstein.

"If a soldier arrives here, they've got a 96 percent chance of surviving," says Col. Tip White, vice commander of the 332nd Air Expeditionary Wing. "During the Vietnam conflict, it often took several weeks for us to get an injured soldier out of theater. Here, we can do it sometimes in as little as 24 hours."

On any given day, several dozen C-17s are in the air at the same

time—flying missions in support of the global war on terrorism, humanitarian efforts and training. But Air Mobility Command selected an aeromedical evacuation mission to represent all C-17 flights that contributed to the million-hour milestone.

These missions are easily the most important type flown by C-17s—transporting wounded American soldiers to follow-on medical care in Europe and the United States, says AMC Commander Gen. Duncan McNabb. "This airplane is quickly becoming the flagship of U.S. compassion," he says.

Air Force personnel give high marks to the C-17 for its aeromedical capabilities. "In aerovac, we really appreciate the C-17. Boeing was thinking about wounded soldiers when they designed the aircraft," says Maj. David Ball, medical crew director on the million-hour mission. "It's a marvelous aircraft, and to everybody at Boeing, I just want to say 'thanks a million.'"

In Balad, during two and a half hours on the ground, the C-17 is refueled, quickly converted to an aeromedical evacuation configuration, and loaded with patients—including some critically wounded.

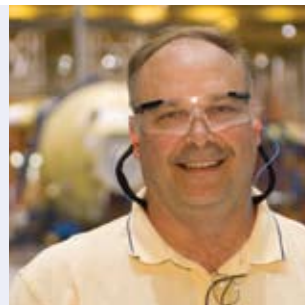
MARCH 20, 4:35 A.M. BALAD AIR BASE, IRAQ

The C-17 leaves Balad at "oh-dark-thirty," as this time of day is often called. One of those in patient litters on the aircraft is Spc. Jeff Reedy of the Army's 103rd Armor Regiment. The day before, he was in a tank on the main supply route from Ramadi to Fallujah, keeping the road open and free of improvised explosive devices.



Carolyn Giordano
Electrical team mechanic

"All the hard work has paid off. I'm really proud to be on the project. I think it's a very successful project that should carry on for years to come. I think our government could use a lot more of these C-17s. They can only be beneficial."



Charlie Lammers
Director, Final Assembly

"The airplane is working hard all over the world. This airplane's changed the way we fight wars and is performing missions nobody really talked about when we designed the airplane. We're real proud to build an airplane that has so much positive effect."

Many needs, 1 million hours

During the C-17's journey to 1 million flight hours, the aircraft has supported the global war on terrorism, provided humanitarian relief for unimaginable tragedies, set dozens of world records and built its reputation as the world's leading airlifter.

Here are some key milestones from the C-17 Globemaster III's million-hour journey:

SEPT. 15, 1991 First flight, from Long Beach, Calif., to Edwards Air Force Base, Calif.	JUNE 10, 1993 First operational mission, "Vigilant Warrior," to Persian Gulf	AUG. 25, 1993 World-record flights for takeoff gross weight, and time-to-climb	SEPTEMBER 1995 First humanitarian relief missions, following Hurricane Marilyn in the Caribbean
SEPT. 9, 1998 C-17 flies the whale Keiko, star of the film "Free Willy," to Iceland	OCTOBER 2001 First combat missions, during Operation Enduring Freedom in Afghanistan	MARCH 26, 2003 First C-17 combat insertion of paratroopers, during Operation Iraqi Freedom	MARCH 19, 2006 C-17 fleet reaches 1 million flight hours, during aeromedical evacuation mission from Balad, Iraq, to Ramstein, Germany

Thousands of C-17 teammates in Long Beach, Calif., celebrated the million-hour milestone March 27. This event was seen by C-17 program teammates in St. Louis, Mesa, Ariz., Macon, Ga., and C-17 bases around the United States. The aircraft that flew the historic mission is at the top of this photo.



BOB FERGUSON PHOTO

His tank was providing security for a group of infantrymen on the ground. Reedy was standing in the hatch, and without warning, a car pulled up. Next thing he knew, gunmen in the car shot Reedy in his left hand. Now in cheerful spirits in the skies over Iraq—and happy to be on his way home—Reedy learns he's on the million-hour mission.

"If these planes have flown that many hours, it means they've taken care of an awful lot of my brothers out here," says Reedy. "The care I'm receiving is fantastic. This is like flying in a hotel. The C-17 is like a Cadillac."

At 30,000 feet on the flight from Balad to Ramstein, the C-17's imaginary time clock hits one million hours. One million flight hours is the equivalent of one C-17 flying every minute of every day for more than 114 years without stopping.

MARCH 20, 7:32 A.M. RAMSTEIN AIR BASE, GERMANY

Fourteen and a half hours after the million-hour mission begins, 16 patients arrive at Ramstein, where they'll be carried onto a bus for the short journey to Landstuhl Regional Medical Center. With

162 beds, it's the largest American-run hospital outside the United States. Here their recovery continues, and the wounded warriors are one step closer to home and an often emotional reunion with their families.

The final leg of the million-hour mission leaves tomorrow afternoon for Andrews Air Force Base, near Washington, D.C. From there, most patients will be taken to Walter Reed Army Hospital or Bethesda Naval Hospital for further care.

With the news media on board, including a crew from CNN, the entire mission is extraordinarily well-documented. But it is not an extraordinary mission. "It was pretty routine," says Conway, the aircraft commander. "All in all, the mission went as planned."

And for the Boeing team that watched from afar, it was a mission well accomplished. "Reaching this milestone is an incredible accomplishment for the entire C-17 team," said Dave Bowman, vice president and C-17 program manager.

"Hitting 1 million flight hours more than a year ahead of the original plan is astounding," Bowman said. "It's truly a testament to the quality, capability and reliability built into the aircraft, and it demonstrates our customers' unwavering confidence in the C-17." ■

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Globemaster III Sustainment Partnership keeps C-17s flying

While the design, quality and reliability built into the C-17 helped the airlifter reach its millionth flight hour so quickly, Boeing's efforts in the field sustaining the U.S. Air Force fleet also were critical to the C-17's success.

Through the Globemaster III Sustainment Partnership (GSP) program, Boeing supports the C-17 fleet 24 hours a day, seven days a week.

"Out in the field, we have Boeing people who have direct contact with the customer and the C-17 every day. This millionth flight hour is a testament to them and everyone who is involved with sustaining this aircraft," said Gus Urzua, vice president of Air Force Integrated Logistics and C-17 GSP program manager. "At many of the locations our Boeing team works in the same building as the maintenance squadrons. Our people are an integral part of the daily operations of air bases around the world."

One of those bases is Ramstein Air Base in Germany, departure point for the million-hour mission. Often that base sees 30 or more C-17 arrivals and departures a day. Any C-17 that flies in Europe or the Middle East is directly supported by Boeing teammates in Germany.

Ramstein field service engineers Fred Bahmani and Tim Miller—along with Dave Grzesiak at nearby Spandalem Air Force Base in Germany, which handles the overflow from Ramstein—provide services ranging from engineering and technical support to informal training to maintainers. Their work has taken them to Iraq, Afghanistan, Spain and Italy, bringing the expertise of Boeing into the field to directly support the fleet.

"No two days are the same, with solving a wide variety of technical problems and working a large variety of aircraft issues," Miller said. "We get to see the results of Boeing and the Air Force working together to make the C-17 the best airlift platform in the world."

Boeing provides more than spares and repairs on the C-17 through the GSP program. Around the globe, Boeing employees oversee the supply chain and provide technical and engineering support in the field to Air Force maintainers. Boeing teammates work to keep C-17s available for warfighters and humanitarian relief missions.

"We're integrated with the customer to provide the best support solutions possible. We anticipate what is critical for them and provide a solution, even sometimes before they need it," said Bill Hammond, director of support-systems integration on the GSP program.

Like Bahmani, Miller and Grzesiak, Boeing field representatives located at all of the C-17 operating locations are on call 24 hours a day and will deploy with Air Force crews in the field if a C-17 needs on-site repairs.

In fiscal year 2005, the C-17 saw a sustained mission capability rate that exceeded 80 percent. The worldwide launch departure reliability for 2005 was an outstanding 95 percent. Over the last five years, C-17 aircraft availability was 8 to 10 percentage points above the airlift fleet average.

With U.S. military forces fighting the global war on terror for more than three years, the GSP program's global support network has ensured the airlifter is ready and available to do its job.

"We are proud to say we help keep the best airlifter in the world flying and fulfilling its mission around the world," Urzua said. "We plan to continue working alongside the customer as long as C-17s are flying."

—Brad Mudd



TONY ROMERO PHOTO

A who's who of individuals with significant contributions to the million-hour milestone attended the Long Beach celebration, including representatives from each of the commands flying the aircraft. In their tan desert uniforms, just above the flags, are the flight and aeromedical crews that flew the million-hour mission.

Tia Charfauros Procurement agent

"Never in a million years would I have dreamed I would be working for one of the top aerospace companies in the world. I am proud of the C-17 and what it has done for the government, humanity and the world."

BOB SCHNEIDER PHOTO



MORE ON THE WEB

To read what Gary Lesser, C-17 program communications manager, and photographer Kevin Flynn thought about being on this historic C-17 mission, visit the *Boeing Frontiers* Web site at www.boeing.com/frontiers.

Protecting national secrets

Photos by Greg Thon



What do employees on classified programs do? They can't tell you—but they're on the front lines of U.S. security

Charles Hebert, FishTools chief engineer, works on a classified program. Like other members of such program teams, he realizes that other Boeing employees may never hear of the accomplishments and successes he and his teammates achieve.

By MICHELLE ROBY

Their workday begins like that of any other Boeing employee, with the usual good-bye to family and the usual commute. But then they enter a world known only to a few, a world where protecting knowledge is imperative to the security of the United States and its allies.

They're employees who work on classified programs.

Each classified-program employee embraces the challenge to protect the secrets of some of the United States' most sensitive national space and intelligence programs, but they don't consider their efforts extraordinary. Like all Boeing employees, they pride themselves on delivering results that meet or exceed the customer's expectations

and help build a better future for Boeing.

"Boeing's classified-program employees play a vital role in our nation's defense," said Howard Chambers, vice president and general manager of Space and Intelligence Systems, the Boeing division employing the majority of classified-program employees.

PERSONAL INTEGRITY AT WORK

Every Boeing program contains pockets of information that require protection. However, information within classified programs has an added element of control due to U.S. security needs. "If you don't do your job, you can put others in real peril," said Sheree Walker, a systems engineer and technical subcontract manager.

Like other employees, classified-program employees understand the importance of

Understanding classified information

While most people understand the term "classified information," they might not realize that there's more to it beyond "Secret" and "Top Secret."

There are actually two separate U.S. classification systems—one governed by the Department of Defense (DoD) and one established by the intelligence community. All such information is regulated on a "need-to-know" basis. In other words, if you need classified information to do your job and are cleared to that level, then you will be granted access to it.

Within the DoD, information may be classified at one of three levels, each delineated by the severity of harm the information's unauthorized disclosure would cause to U.S. security.

- "Top Secret" is applied to information whose unauthorized disclosure would reasonably be expected to cause "exceptionally grave damage" to national security.
- "Secret" means "serious damage" would be done to the United States.
- "Confidential" means "damage" would be done to the United States.

Technologies that enable critical systems are assigned these levels because they can possibly reveal sensitive system capabilities and vulnerabilities. Escalating classification levels are assigned to weapons systems and intelligence systems in accordance with their importance to U.S. security.

Within the intelligence community, there is another classification system. "Special Access" programs deal with extreme Sensitive Compartmentalized Information that exceeds normal security circumstances. Access to such information is closely controlled and selectively approved.

the information they've been entrusted with and the outcome of compromising that information. That understanding accounts for the personal ownership employees have for their work. "I honestly believe in what I do because it supports freedom across the world," said Dave Bever, a program manager. "Our classified work supports the men and women in uniform and the safety of everyone in this nation."

Most classified-program employees aren't aware of the exact nature of their job until they're briefed, or "read" into the program, by Security. Many don't know what to expect at first, but they soon start to understand the significance. "Once I was read into the program, I knew hands-down I wanted to pursue this as a career," said engineer Sarah Vaneekhoven. "It was so im-

portant to the nation. I wanted to make sure the program thrived.”

BALANCING SECURITY, COMMUNITY

While many classified-program employees work in areas and locations known only to a few, others labor among the greater Boeing population, indistinguishable from anyone else except for the buildings they enter. While they maintain an aura of secrecy about their job, they make sure they connect with their family and Boeing colleagues to participate in community activities.

While “outside,” these employees must continuously guard the information they have. “I always have to remember where I am and when I can discuss certain topics,” said systems engineer May Tassler.

Similarly, when employees leave the office, there isn’t much of an opportunity to discuss work with family and friends. For employees’ children, the mystery of what their parent does is difficult to understand based on what they see on television or hear during “Show and Tell” at school. It’s also hard when there are restrictions on bringing visitors into the office. “It is a hard concept for the kids to understand that you can come to their school, but they can’t come to your work,” said Denny Hodge, a Boeing



Sarah Vaneekhoven works on a classified program. She has a pride of ownership in her work, emphasizing the importance of the program to the United States.

associate technical fellow.

Working on classified programs does make discussing work with family difficult, but not impossible. “They understand that we can’t talk about what we do,” said Manny Yi Donoy, Quality manager. “They trust us completely and vigorously support us. That support speaks volumes to how we feel about our work and the dedication we have to our job.”

MOTIVATING FACTORS

Unique to these employees is an understanding and acceptance that the rest of Boeing—and the majority of Americans—will probably never hear of the successes of their programs beyond their immediate circles. And they’re OK with that knowledge, knowing as Boeing employees they can take pride in the successes of their peers. “I get a kick out of hearing what’s going on around the company, like the International Space Station, C-17 and 787,” said Charles Hebert, chief engineer for FishTools software. “It’s cool because Boeing is so diverse. But for my part, publicity isn’t really why I do this.”

“The nature of the work makes it very challenging, and every success is rewarding,” said Tammy Povak, a systems engineer. Working within a like-minded community is a source of satisfaction for many employees, including those in this group. “The rewards of working with highly motivated, smart people who share my enjoyment in tackling some of the world’s most formidable scientific and technical challenges—that’s why I’m here,” said Jim Soash, a deputy program manager.

And for some, it’s about career growth. “I never would have thought I could start a new career working on classified programs after so many years in the airline industry,” said Ralph Lennon, X6 risk manager. “I sometimes pinch myself to make sure it’s real.” For others, the opportunity to devote time to a worthwhile cause is the motivating factor. Said software engineer Jason Weller: “I always wanted to serve our country in some way, and this allows me to do that.” ■

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May Tassler, a systems engineer on a classified program, said she has to “remember where I am and when I can discuss certain topics.”



Balancing security and business

A group of highly trained individuals within Boeing Security is responsible for ensuring employees supporting classified programs follow security policies and procedures every day.

“We live in a constantly changing world that requires us to look for innovative policy solutions that protect both our customers’ interests and our internal business partners’ strategies,” said Loyd Treuhaft, Shared Services Group senior security manager. He supports Space and Intelligence Systems, the Boeing division that employs most classified-program employees.

“No two security situations are exactly the same. That is why working in Boeing Security is so exciting. You never know what the next problem or issue will be or even what the next day at work will bring your way,” Treuhaft said.

To face these challenges, Boeing security professionals seek out expert advice from all over the company. These professionals come from varied backgrounds, including law enforcement, the government or military, and within Boeing. “This diversity, containing a broad range of experience, is a valuable asset when a security process must be changed or developed,” Treuhaft said.

As the classified world has changed, the biggest impact has been from communication technology. Computers, cell phones and hand-held personal data assistants bring their own challenges. “Our job is not to tell a business partner ‘no,’ but rather to tell the partner ‘how,’” Treuhaft said.

Boeing's proposed HH-47 Combat Search And Rescue aircraft will be similar to the MH-47G multimission aircraft. Equipped with an advanced, U.S. Air Force-compatible electronic warfare suite, the CSAR helicopter will deliver long-range performance at high altitudes and in all weather conditions.

Perfect balance

BOEING PHOTO

Boeing's CSAR-X entry mixes latest technology with strong foundation

By TOM MARINUCCI

An advanced aircraft built on a history of success puts Boeing in strong position for the U.S. Air Force Combat Search And Rescue aircraft competition. The company's entry for the program is the HH-47 tandem rotor helicopter. The CSAR contract, valued at more than \$12 billion, would entail building 141 aircraft and provide more than 300 jobs at the Boeing site in Ridley Park, Pa.

This platform builds on the achievements of the CH-47 Chinook, with its history of combat service and performing search, rescue and humanitarian missions around the world. It's in active production and provides a low-risk choice for the U.S. Air Force.

In support of its bid for the program, in November the platform successfully completed a series of demonstration flights at Nellis Air Force Base, Nev. These flights showed the capability of the aircraft to retrieve downed pilots, rescue injured aircrew members

and conduct other CSAR missions.

The demonstration aircraft performed "extremely well," said Van Horn, HH-47 capture team leader. He noted the helicopter design already meets the Air Force's initial requirements and leverages significant past development efforts on the Chinook. In addition, Horn said, the Boeing assembly line has the capacity to deliver to the Air Force ahead of the program's schedule.

Built on a new airframe, the HH-47 rescue aircraft is similar to the U.S. Special Operations MH-47G helicopter but will be equipped with an advanced Air Force-compatible electronic warfare suite, including countermeasures and survivability enhancements. With proven long-range performance, this CSAR helicopter is multimission capable. The Chinook has significant combat experience at high altitudes and in all weather conditions (see box at right).

In 2005, the CH-47 demonstrated its capabilities by supporting Hurricane Katrina and Rita recovery efforts on the U.S. Gulf Coast, and earthquake rescue, recovery, and medical evacuation and transport operations in Pakistan. With the enhancements of the HH-47, it is ready to continue supporting the customer's CSAR needs for decades to come. ■

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Ready to go

Here are some features of the HH-47 helicopter, the Boeing entry in the U.S. Air Force Combat Search And Rescue (CSAR) aircraft competition.

- The affordable, low risk, highly capable platform has a proven operational and logistics track record that's compliant with key performance parameters; it incorporates the advanced functionality necessary to perform demanding CSAR missions.
- The multimission-capable platform has had significant combat experience in high altitude terrain, in austere environments and in limited visibility.
- The Air Force CSAR version will be a new-build aircraft that meets all Block 0 requirements and requires minimal upgrades to meet Block 10 requirements.
- Key features include a net-ready cockpit, forward-looking infrared radar, terrain-following/terrain-avoidance radar and in-flight refueling capability.
- Improved power and avionics complement vibration reduction and transportability enhancements.
- Improved digital maps, mission planning and management capability enable flight crews to conduct missions with pinpoint accuracy, greater crew situational awareness.
- The platform is in use by countries worldwide, including the defense forces of The Netherlands, United Kingdom, Egypt, Singapore, Japan, Australia and many more.

Another perfect score

ISS performance earns Boeing another 100% score determination

By Ed Memi

The International Space Station's performance has earned Boeing its sixth consecutive 100 percent score determination for on-orbit performance from NASA.

The rating of the Boeing-built hardware and software is based on the success of the ISS mission and the safety of the crew. The score determination by NASA lets Boeing retain previously awarded money. A rating of less than 100 percent would require Boeing to return some money to NASA.

Boeing has exceeded NASA expectations, which include successful on-orbit assembly of each new element, subsystem performance in line with design requirements, and the provision of planned resources, such as power, to support science objectives. During the on-orbit performance assessment, NASA evaluates subsystem performance, assembly, payload support and resolution of in-flight anomalies.

The on-orbit score determination provides an incentive to make sure hardware works properly when on orbit. The Boeing success demonstrates execution in delivering for the customer—and boosts the bottom line.

Boeing is the prime contractor for the U.S.-developed hardware/software and integrating contractor for the U.S. and international partner segments. With more than 26 complex elements and more than 10 distributed subsystems that must perform perfectly together in more than 20 different vehicle configurations, the station is the nation's most ambitious endeavor in space.

Leading up to the score determination, NASA and Boeing participate in an extensive assessment that examines how new hardware has performed.

"Over the last three years, it has been mostly software that has gone up on station, but we are also assessing whether earlier hardware is still performing as expected," said Harry Johnson, a Boeing systems integration engineer who helps prepare the hardware and software performance briefing to NASA on the annual score determination.

The ISS was designed to be maintained and supported, and some failures are expected. Boeing external hardware and software has on average been experiencing only about one-fifth the rate of failure predicted, thus requiring fewer spacewalks for repairs.

"Boeing has also done a great job, together with NASA, of supporting the hardware on orbit," said Matt Duggan, ISS Mission Operations manager. "We have also come up with creative ways to extend hardware life using different operations methods."

One example is the Beta Gimbal Assembly, the joints that rotate the solar arrays on the station toward the sun for electric power generation. In the current configuration of the Station, the solar arrays are 90 degrees from the original design orientation on the end of the truss.

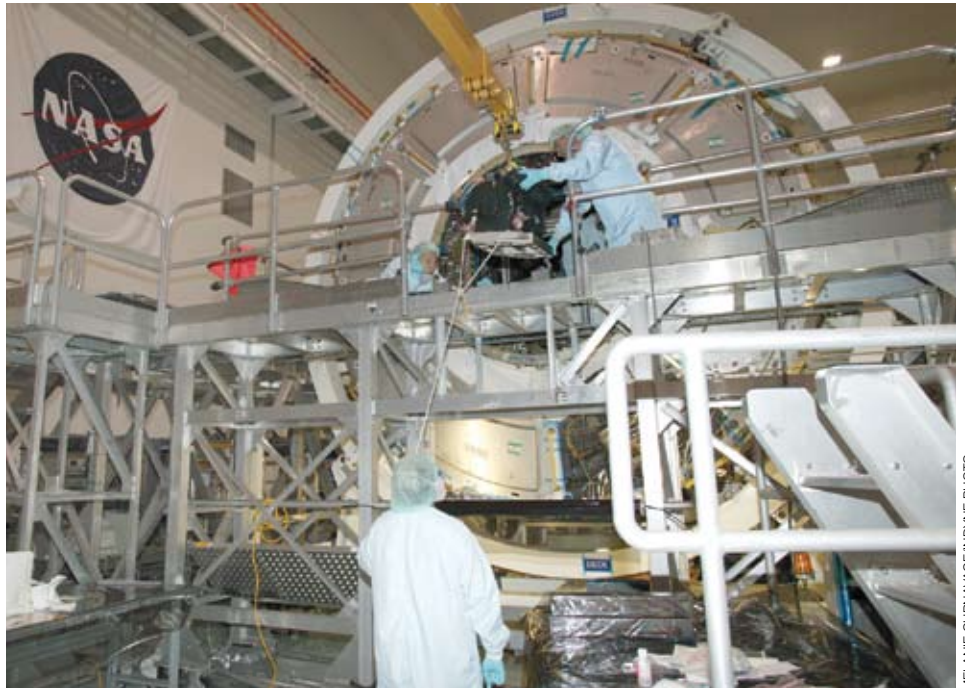
"In this orientation, the array is moving differently and a lot more than it was designed to move as it tracked the sun. We started to see some bad signs from the joint when stressed," Duggan said. "We jumped in there quickly and designed a couple of new ways to operate it to make sure the stresses on the ball bearings and joints were distributed properly, eliminating any added wear."

Also, new ISS attitudes were developed, much different from the original design attitude. Different attitudes are flown to put less stress on certain hardware.

Although additional station hardware is waiting for rides on future shuttle flights, Boeing-built ISS hardware is on orbit now, performs well and represents the key elements of the completed design. Boeing and its suppliers built about 80 percent of the U.S. side of the ISS.

"We really have the full Boeing design represented right now on the Space Station in orbit," Johnson said. "We now know that the Boeing design for the phased development and manufacture of hardware has been proven." ■

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In this August 2005 image, Boeing technicians prepare International Space Station Node 2 to be launched on assembly flight 10A, now scheduled for mid-2007. They are shown installing a pump package assembly.

MELANIE GURNAVAGE/INDYNE PHOTO

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The Casa Youth Shelter assists youths in crisis, providing temporary housing along with programs focused on prevention and intervention to reduce family conflicts that devolve into domestic violence.

Please join us and make a difference. Today and every day.





Maintaining a winner

Next-Generation 737 offers airlines flexibility from the ground up

By PAUL McELROY

When the 5,000th 737 rolled out of the Renton, Wash., factory in January, it bore a strong resemblance to the first twinjet built nearly four decades ago. But appearances can be deceiving. That Next-Generation 737-700 model shared few similarities with its original sibling. Smarter, sleeker and more capable, the Next-Generation 737 represents a rebirth of the world's best-selling jetliner—from its distinctive blended winglets to a new philosophy on maintenance.

This new take on maintenance reflects Boeing's strong focus on customers' needs. This approach helps make Boeing products a more attractive option in the competitive single-aisle market segment.

"Our goal was to make it fly higher, far-

ther and faster," said David Reed, Next-Generation 737 fleet support chief for Boeing Commercial Aviation Services. "We also placed a huge focus on maintenance and reliability because it's such a big percentage of the cost of running an airline."

has ever done," said Johan Kala, manager of maintenance programs for Continental Airlines. "I'm free to package the tasks where and when I need to."

But improving the Next-Generation 737 didn't stop at the factory door. Commercial Aviation Services' Maintenance Engineering department—in collaboration with customers and regulatory authorities—recently completed a two-year effort to improve efficiency. Nearly one-third of the task intervals were lengthened, based on in-service maintenance data provided by airlines accounting for 41 percent of the world's Next-Generation

RAVING OVER SAVINGS

Estimated maintenance savings over 20 years, based on a 20-airplane fleet

Labor-hour savings per airplane:	2,586
Cost savings per airplane:	\$155,193
Savings for 20-airplane fleet:	\$3,103,860
Service days gained from task escalations:	40
Additional revenue per airplane:	\$1,097,120
Revenue for 20-airplane fleet:	\$21,942,400

Total airline benefit: \$25,046,260

Savings represent reduced labor hours for inspection tasks that were revised ("escalated") in 2004-2005. Labor hours were derived from published estimates in Boeing's Maintenance Planning Document and include access/setup time and average additional time spent on corrective action. Cost savings based on \$60/hour labor rate. Revenue based on an industry average of \$27,428/day.

When designing the Next-Generation 737, one way Boeing engineers improved maintenance and reliability was by using a software tool called CATIA. Developed by France-based Dassault Systemes, the program's solid-modeling capabilities identified maintenance access and "stay-out" zones to ensure that aircraft maintainers would have enough room to do their work.

Boeing also changed its maintenance program philosophy to offer customers greater flexibility. Traditionally, maintenance inspection tasks are bundled into predefined packages—called A, B, C and D checks—to be conducted at specified intervals. Starting with the 777 and, subsequently, the Next-Generation 737, Boeing led the industry with an alternative approach. As always, the company recommends intervals for each of the airplane's 883 inspection tasks. But operators decide how to package them—and benefit accordingly.

"That's one of the greatest things Boeing

737 fleet.

The interval for tasks such as inspecting landing gear and entry doors, cargo compartments and the vertical fin stabilizer increased from 40 days or 300 cycles (take-offs and landings) to 70 days or 560 cycles. "That may not seem like much of a change, but the labor and cost savings are substantial when multiplied over the life of an airplane and across an airline's fleet," said Jack Trunnell, Commercial Aviation Services director of Maintenance Engineering.

The most significant revision increased the interval for a comprehensive structural inspection from five years to six. "Besides saving 9 percent in maintenance costs, the new interval keeps the Next-Generation 737 flying for another three to five days every fifth year—adding hundreds of thousands of dollars in revenue and reducing the need for a spare airplane," Trunnell said. ■

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Boeing's Arthur Holm, 737 customer delivery center team leader, prepares a Next-Generation 737 for customer delivery at Boeing Field in Seattle.





ED TURNER PHOTO

Aft Systems Installation work in Everett, Wash., has moved from the 40-26 building to the 40-25 building, where 777 aft sections now rest side-by-side on tools called crawlers. Workers install plumbing, wiring and other electrical systems in this position.

Widebodies in motion

Thanks to the Boeing Production System, the 777 program in Everett gets ‘moving’

By DEBBY ARKELL

Ever wonder why moving lines move? Simply put, they move so they can be stopped. Stopping a moving line brings immediate attention to problems encountered during production, which is a fundamental tenet of Lean manufacturing.

Commercial Airplanes continues to implement Lean principles in its factories to facilitate the transformation of its production system. Lean process improvements reduce the cost of airplanes, increase flexibility in manufacturing, and shorten the lead time required to build and deliver an airplane. This gives Boeing and its customers greater flexibility in delivery, as Boeing can build more airplanes faster. It ultimately can help Boeing manage production cycles.

Among the sites moving to a moving line is the 777 production line at the Everett, Wash., factory. Yet the 777 moving line will be different than previously implemented moving lines at Boeing—namely the 737

and 717 moving lines—because the 777, one of Boeing’s largest airplanes, comes together differently than those models.

The jump in production rates to meet the increased demand for jetliners makes the production system transformation an even more daunting task. Yet the Everett team is taking advantage of lessons learned on other programs—and input from its employees—to extend the moving line concept even further to include Systems Installation.

“No one’s done this before—putting Systems Installation into a moving line—so we’re in new territory,” said Kent Harbidge, 777 electrical systems team leader. “But all the changes that’ll be occurring are necessary for our survival as a company. It will make the airplane come together more quickly and with lower costs.”

The line will be U-shaped, beginning at the south end of factory building 40-25 with forward and aft sections moving north through Systems Installation on tools called crawlers. At the end of the line, the forward

and aft sections will move on their crawlers over to the Final Body Join position to be mated with a wing center section. There the three parts will be joined and the tail fin attached. At this point the airplane continues its journey south into Final Assembly, where flight deck systems and interiors will be installed.

“The moving line is actually just one more visual cue being implemented as one of the [Boeing Production System’s (BPS)] 9 Tactics,” said Jerry Dierickx, 777 program Boeing Production System Implementation project leader. “Yet the changes we’re making in our factory affect processes from product offerability and engineering design to the factory floor.”

Workers have moved aft Systems Installation work from the 40-26 building into the 40-25, and platforms previously used for fixed-position airplane assembly are being demolished to make way for a nose-to-tail configuration. The first crawlers and cradles (tools that hold the fuselage on crawlers) made their debut earlier this year. The team is on track to have Systems Installation fully relocated and move-capable by the third quarter of 2006.

Next steps will be to prepare Final Body Join to be performed on crawlers. It will be move-capable by June 2007. By June 2008, after a period of pulse tests, implementation leaders expect the line to be moving.

Sure, it looks easy on paper. However, Everett people are transforming their processes at a time when they are busier than ever—and getting busier—as production rates increase. It’s a formidable challenge, but thanks to the input and commitment from Everett manufacturing employees, program leaders say they’re prepared.

“The key to our success has been employee input,” Dierickx said. “Employee input is what got this going in earnest, and employees will continue to be a critical part of the implementation process.” ■

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Materials Management employees Rhonda Linke (far right) and Gordon Litzenberger (second from right) lead a tour of the Boeing factory in Renton, Wash., for Merv Floyd and Richard Greaves (second and third from left, respectively) of supplier partner Meggitt Aerospace Systems. Also with the tour are Commercial Airplanes' Global Partners Manager Kam Gow (left) and Global Partners Procurement Agent John Pregent.

ED TURNER PHOTO

ness. That way, key Boeing people can be strategically aligned with individual supplier briefings.

During supplier visits to Renton, the assembled team talks about the 737 program vision and strategic direction, Lean manufacturing philosophy and history of the site before providing a tour of the 737 moving line. The day wraps up with a discussion of ideas for improving the value stream. Results of the visit are documented and surveys are sent to the suppliers to continuously improve the project.

They're teammates, too

Supplier Relations project strengthens 737 program's relationship with parts providers

By RICK ROFF

Helene Michael, 737 manufacturing director, recently gave a supplier an unforgettable example of its importance to the Boeing Production System.

During a tour of the 737 factory in Renton, Wash., Michael, then 737 factory superintendent, was showing the supplier how an efficient flow of parts is critical to keeping the 737 production line in motion. Suddenly, with the supplier watching, the moving line came to a halt.

"They asked me what was happening, why the line had stopped," Michael said. "It turns out a part had not yet arrived from this very supplier. It demonstrated real-time what can happen when a part is late, isn't right, or if a kit is incomplete. It got their attention."

Inviting suppliers to visit Boeing Commercial Airplanes sites for a briefing on and tour of the production system is part of the

Supplier Relations project. The idea, from 737 Materials Management Director Candace Lydston, grew from a need to expand on Boeing's success with suppliers. As suppliers better understand Boeing's production processes, they're better able to support the company's business requirements. That helps Boeing keep production lines and teams operating efficiently.

"We have great working relationships with our suppliers that are better than most companies of our size and breadth," Lydston said. "The objective here was to involve even more the people who are important to our business, share more information and discover ways to improve everything we do as a team."

Materials Management employees Gordon Litzenberger and Rhonda Linke work together with senior managers and procurement agents in Global Partners to construct a biography of each supplier's busi-

ness. That way, key Boeing people can be strategically aligned with individual supplier briefings.

"We are relying more and more on our supplier partners," Linke said. "It makes sense to have a very close-knit relationship with them."

Thomas Clark, who leads the project, said teaming that takes place through site visits is bringing impressive results.

"Many suppliers have never been inside our factory, or met the people who work with their parts on a regular basis, so that's significant in itself," he said. "When they see for the first time the 11-day flow of our airplanes, how their parts may only be in a single position for one day, and where those parts are installed, they begin to think about Leaning out the process. It's a real eye-opener."

Norma Clayton, leader of the company-wide Global Sourcing growth and productivity initiative, said involvement of suppliers in a continuous pursuit of efficiency reinforces the goals of the four corporate initiatives.

"It's all about making us more competitive," Clayton said. "When suppliers are ingrained in our business and become active, critical members of our team, the benefits in terms of improved quality and response time can be an enormous catalyst in driving down cost." ■

MORE ON THE WEB

For more information and to read an extended version of this article, visit the *Boeing Frontiers* Web site at www.boeing.com/frontiers.

The e-Enabled 787

What it means to work on most technologically advanced jetliner ever

By DAN MOORE AND ADAM MORGAN

Electronic documents. High-bandwidth connectivity. Wireless communications. Innovations such as these have changed the workplace and our everyday lives. Boeing is seeking to deploy these same technologies on the world's most technologically advanced commercial airplane: the Boeing 787 Dreamliner. These technologies will help give the 787 a competitive advantage by improving operational efficiencies, reducing maintenance costs and dramatically improving the traveling experience for passengers.

"It wasn't a single specific technology that brought us here; it was the results of a series of advances that gave us an environment the whole world could leverage," said Chris Kettering, e-Enabled program director for Boeing Commercial Airplanes. "We're about to see a similar revolution on board the 787 and other fully e-Enabled airplanes."

The history of e-Enabled airplanes goes back to the 1990s, when Boeing began work on an electronic library system for the 777. The ELS proposed to expand on the 777's onboard maintenance system and maintenance access terminal by offering flight crews and mechanics dual side displays, an electronic library cabinet, connections for portable computers and fiber-optic gatelink connectivity. Despite limited initial airline interest, Boeing continued developing the necessary tools and technology—whose value was eventually recognized by airlines.

The company's investment and the motivation of its employees resulted in a number of product launches through the next decade: the Electronic Flight Bag, Connexion

by Boeing, Wireless Ramplink, Jeppesen electronic charts, Boeing Digital Technical Documents, and online support through MyBoeingFleet.com.

Initial e-Enabling products justified their way onto airplanes by providing a service solution. For example, the Connexion by Boeing satellite system delivers Internet access to passengers, providing airlines with a market differentiator and revenue opportunity. Boeing's Electronic Flight Bag, meanwhile, delivers electronic charts, manuals and reference data to flight crews, reducing paper-distribution costs.

The EFB and elements of the Connexion by Boeing system are standard features on the 787. Both products required the development of ground infrastructures and management tools, wireless/satellite ground services, and installation of onboard computers, networks and displays.

The e-Enabling products on the 787 will be highly integrated with the onboard maintenance, dataload and crew information systems, offering airlines maintenance-cost-reduction opportunities.

"The benefit in allowing the airline back-office team to remotely deploy software,

parts, data, charts and manuals to airplanes with minimal hands-on mechanic involvement is clear," said Dan Moore, 787 manager of Avionics e-Enabling. "Airline engineers and maintenance planners also seem to like the benefits of directly receiving large data files from every airplane in the fleet without having to send the mechanic out to [download or retrieve] discs."

The 787's e-Enabling advantage goes beyond benefits for mechanics and flight crews. In the cabin, Boeing is deploying a wireless in-flight entertainment (IFE) system that delivers video content to each passenger screen without bulky wiring. This offers substantial benefits to airlines that traditionally need to remove and replace the IFE wiring when reconfiguring cabins. The system saves maintenance and also enables long-term technology growth.

With the crew information system, airlines have the option to include a wireless network for maintenance access. Mechanics on the 787 will use maintenance control displays that are Web-based and portable to access onboard maintenance data, initiate tests and review maintenance documents. ■

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The flight deck in the 787 Dreamliner will include the Electronic Flight Bag, which features an electronic logbook and leverages the airplane's satellite connections. The logbook automatically provides reports to airline maintenance teams, allowing mechanics to better plan repairs and pre-position parts prior to airplane arrival.

BOEING GRAPHIC





C-47s, the military version of the DC-3, fill the Douglas factory in 1943. Douglas produced more than 4,000 military versions of the aircraft in Long Beach, Calif.

Flying through the ages

With the delivery of the final 717, the legacy of jetliners from Long Beach takes to the sky

By TOM BRABANT AND LARRY MERRITT

In July 1920, in the back of a Los Angeles barber shop, 28-year-old aviation engineer Donald Wills Douglas and aviation enthusiast David R. Davis opened the Davis Douglas Company. Together they built a biplane called the Cloudster, the first aircraft that could lift a load equal to its own weight.

Fast-forward 86 years to today. Later this month, the 156th and final Boeing 717

will be delivered to AirTran Airways. This will mark the last commercial airplane built in the storied Long Beach, Calif., Douglas factory—and will conclude production of heritage Douglas and McDonnell Douglas commercial airplanes.

The Long Beach commercial jetliner legacy is rich in aviation history and technological achievement. And it will live on through manufacturing innovations that are practiced throughout today's Boeing—

as well as through the many airplanes that were built in Long Beach.

That legacy began with Douglas and Davis' Cloudster, whose capabilities grabbed the attention of the U.S. Navy and Army. (When Davis sold his interest in the partnership soon after the airplane's debut, the company was renamed the Douglas Company.) Soon there were orders for military versions of the aircraft, including the Douglas World Cruiser, which in 1924 became the first aircraft to circle the globe.

Of all the DC ("Douglas Commercial") models, the DC-3 is perhaps the most renowned. It was the first airliner to make money for its operators by transporting people, independent of mail contracts. And its military applications over the ensuing years would change the course of history (see Page 10 of the December 2005/January 2006 issue of *Boeing Frontiers*).

When war broke out in Europe in 1939, U.S. President Franklin Roosevelt asked the country's aviation industry to gear up to build 50,000 aircraft a year. Douglas responded with "We can do it," and the company broke ground on the Long Beach plant in November 1940. More than 4,000 C-47 Skytrains, the military version of the DC-3, were produced at Long Beach, along

with numerous other military aircraft.

POST-WAR BOOM

After the war, Douglas made additional strides in commercial aviation. By 1955, Douglas began work on its first jetliner, the DC-8. The decision to build the four-engine DC-8 brought about relocation of all Douglas commercial work to Long Beach.

Douglas broke ground on the \$20 million DC-8 assembly facility in April 1956. The 1-million-square-foot structure consisted of two production buildings—today’s buildings 80 and 84. The new facility made it possible to produce both commercial and military aircraft in Long Beach simultaneously.

Within two years of the DC-8’s first revenue flights, Douglas engineers were designing their next new airplane, a small twinjet airliner dubbed the DC-9.

The successive developments of the DC-8 and the DC-9, along with construction of major new engineering and manufacturing facilities, entailed an enormous expense. By 1966, now with Donald Douglas Jr. as president and Donald Douglas Sr. as chairman, the company found itself in the unfortunate position of having many opportunities but few financial resources to meet them. Douglas decided its only solution was to merge with a strong partner. The decision to merge with the McDonnell Company was announced in January 1967. Four months later, the McDonnell Douglas Corporation was created.

Meanwhile, the DC-9, which first flew in 1965, proved itself with rugged construction and design that subsequent generations of Douglas twinjets would follow. By the time the DC-9 Super 80 made its first flight in 1979, the DC-9 platform was bigger, quieter and more fuel-efficient. When the last of these airplanes was delivered in 1999 (known then as the MD-80), more than 1,100 MD-80s had been built, making it the most successful Douglas commercial airplane.

Within a year of the merger with McDonnell, the DC-10 was launched as the



BOEING PHOTO

Present at the rollout of the DC-9 are Douglas Aircraft Company executives (from left) Donald Douglas Jr., president; Donald Douglas Sr., chairman of the board and chief executive; and Jackson McGowen, group vice president, Commercial.

corporation’s first entirely new product. The DC-10 was the first Douglas twin-aisle airplane, and its distinctive trijet design made it readily identifiable. The airplane was to compete in the lucrative “jumbo jet” market along with the Boeing 747 and the Lockheed L1011, which was introduced just a few months after the DC-10.

In the 1990s, work was under way on a shorter, lighter twinjet, the MD-95, intended to be a successor to the DC-9. Renamed the 717—after McDonnell Douglas’ merger with Boeing in 1997—the airplane was built as a low-cost, 100-passenger airliner. Although demand for an airplane in the 717’s category never fully materialized, the program might best be known as a pioneer in advanced production techniques and supplier partnerships. The 717 hallmarks of Lean manufacturing and Employee In-

volvement have been incorporated into other Commercial Airplanes programs.

The men and women who have been part of these programs through the years have done more than contribute to aviation history: They helped shape the world. Today 2,727 Douglas and McDonnell Douglas commercial transports fly with 320 operators around the globe, ensuring the legacy will continue well into the 21st century. ■

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To read an extended version of this article, visit the *Boeing Frontiers* Web site at www.boeing.com/frontiers.

A record of innovation

Here’s a partial list of commercial and military airplanes produced by Douglas and McDonnell Douglas in Long Beach, Calif., and the number of airplanes delivered (in parentheses). A more complete list is available on the *Boeing Frontiers* Web site at www.boeing.com/frontiers.

1921-1927:	1931-1937:	1942-1947:	1946-1958:	1965-1982:	1979-1999:	1991-CURRENT:	1998-2006:
Cloudster (1) DT bombers (46) World Cruisers (5)	0 Series observation monoplanes (142)	DC-4/C-54 Skymaster transport (1,242)	DC-6/DC-7 piston-engine airliners (1,042)	DC-9 twinjet airliner (976)	MD-80 twinjet airliner (1,191)	C-17 Globemaster III (149 so far)	Boeing 717 twinjet airliner (156)

Note: Douglas and McDonnell merged in 1967; Boeing and McDonnell Douglas merged in 1997



The power of the pool

What good can come from a small donation? Lots, when many contributions are put together. That's what lets the Employees Community Fund provide strong support to organizations that help improve the areas where Boeing people live and work.

To help its clients meet an essential need, the White Center Food Bank in Seattle counts on the efforts of volunteers such as Augustine Martinez (left) and Nolan Lewis—and the support of entities such as the Employees Community Fund of Boeing–Puget Sound.

About the ECF

The Employees Community Fund is made up of seven Boeing-endorsed 501(c)(3) entities located in Wichita, Kan.; Huntsville, Ala.; Portland, Ore.; Mesa, Ariz.; St. Louis; the Puget Sound region of Washington state; and Southern California. ECF committees, such as those in Philadelphia and Chicago for example, are affiliated with either the 501(c)(3)s in Southern California or Puget Sound, which enables them to disburse funds to the community.

For more information about the good work ECF is doing in your community, contact your local ECF board or committee. Or visit http://community.web.boeing.com/ecf_about.cfm on the Boeing Web.

GAIL HANUSA PHOTO

Inside

Puget Sound: ECF funds help a food bank build a new facility. **Page 32**

Southern California: ECF supports an organization that's improving the environment. **Page 33**

Wichita, Kan.: Thanks to ECF's support, an organization works to prevent homelessness, provide hope. **Page 34**

Kennedy Space Center, Fla.: ECF works with a unique children's camp. **Page 35**

By SUSAN BIRKHOLTZ

Most people have heard the old saying, “The whole is greater than the sum of its parts.” One prime example is right here at Boeing—the Employees Community Fund.

The Fund's objective is to provide monetary support to nonprofit community organizations that offer critical services in the places where Boeing employees live and work. It's made up of individual contributions from Boeing employees. Some contributions are large, but most are relatively small. However, all are powerful when they are pooled and directed to the communities where there are Boeing employees. Just ask the nonprofit organizations ECF is helping around the United States, profiled in the following articles. It is in their stories that the “power of the pool” is most evident.

“The inherent value of the Fund is that it provides employees with a means to pool their contributions for greater impact on the community,” said Anne Roosevelt, vice president, Corporate Community and Education Relations.

“The Fund is ideal for those who want to help but may feel that what they can afford to contribute is not significant enough on its own,” she said. “Employees can give as little as \$5 per paycheck, which may not seem like much. But when that \$5 is combined with the contributions of thousands of other employees, that's when the real magic happens.”

Roosevelt noted the Fund also is unique in that local employees direct local contributions. “ECF members elect fellow employees to sit on local ECF boards or committees, who are charged to direct employee donations to viable nonprofit organizations in the community,” she said. Board and committee members volunteer their time to review grant applications, make site visits to organizations seeking support, and maintain relationships with the organizations to ensure employee dollars are being used wisely.

Sitting on an ECF board or committee is “a very responsible job that can be a significant time commitment, and it's a wonderful way to live the Boeing value of good corporate citizenship,” Roosevelt added.

Besides being able to elect board and committee members to direct their contributions (or running for these boards and committees themselves), employee members in many locations can sponsor nonprofit organizations for support. “I encourage ECF members to get involved in how their contributions are directed,” Roosevelt said. “The more involved employee members are in their individual Funds, the better. It's their money, after all.”

Another unique thing about the Fund, Roosevelt said, is no employee contributions are used to pay for the traditional overhead expenses that other nonprofit organizations are burdened with. “Boeing believes in ECF and the power it has to do good in our communities,” she said. “That's why the company pays 100 percent of all administrative and promotional costs associated with the Fund. Every dollar contributed by employees goes to the community.”

The nonprofit organizations profiled in the following stories—from Los Angeles, Seattle, Wichita, Kan., and central Florida—represent just a handful of the thousands of nonprofits supported by ECF boards and committees in the United States and internationally.

“We should all be proud of the good work we are doing in our communities through ECF,” Roosevelt said. “There certainly is ‘power in the pool.’” ■

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Among White Center Food Bank's volunteers are Debra Cantrell (from left), Augustine Martinez, Gaiya Gillespie-Walker, Nolan Lewis and Clarice Goldsmith.

name), who left a violent alcoholic husband after he threatened her and her son. She now lives with her son in a shelter for battered women. "White Center has gone out of its way to make me and the other women feel dignified and safe," she said. The food bank helped her find clothes and a cell phone to call 911. "Sometimes people pass judgment without knowing what a person's situation is," she said. "But not at White Center. I call the people here my angels."

In the food lines, patrons can choose—as they would in a grocery store—dry and canned goods, meat, fresh produce, baked goods, and household products such as laundry detergent and toilet paper. Volunteers offer food, explaining to some—immigrants for example—how

GAIL HANUSA PHOTO

unfamiliar foods can be cooked.

"We try to provide culturally appropriate, nutritious food," Jump said. "In the new building, we'll have a demonstration kitchen right off the waiting area where we can actually show people how to cook the foods they select."

The contrast between the food bank's new building and its cramped, dark temporary quarters in a former church is stark. The low-slung new building shines with white paint and new tile. Jump pointed with happiness at a garage door at one end of the building. "We can drive the truck right up to the door and unload the food directly into the storage area," he said. "I'm very, very excited. It'll be just like a grocery store." ■

Feeding body and soul

ECF funds help White Center Food Bank in Seattle build a new home

At a time when most people are waking up and having their morning coffee, most days there's already a line forming outside the White Center Food Bank in Seattle. No matter how uncomfortable the weather, the line forms like clockwork every morning.

Rick Jump, White Center Food Bank executive director, said these quarters—and the line outside—are temporary. Soon the food bank will open a new site, partly paid for with a grant of \$40,000 from the Employees Community Fund of Boeing–Puget Sound.

Jump is especially excited about the indoor waiting room in the new building. "No more waiting outside in the rain and cold," he said, smiling.

Jump said most of the patrons, as he calls them, have one thing in common: They're trying to stretch what little money they have to cover food, rent and utilities.

Jump and his volunteers, many of whom are or were patrons, understand the dilemma of tight budgets and the condition of being poor. That's why it's so important to Jump that he and his volunteers treat patrons with respect and dignity. They know this could happen to anybody—to anyone who's lost a job, faced overwhelming medical bills, applied the rent money to fix a car needed to drive to work, or escaped an abusive spouse with few clothes and less money.

That's the case of tall, slender, articulate "Pamela" (not her real



GAIL HANUSA PHOTO

Rick Jump, executive director of the White Center Food Bank in Seattle, stands in the organization's future home. The Employees Community Fund of Boeing–Puget Sound provided support for the construction of this new site.



A girl from 10th Street Elementary School in Los Angeles participates in TreePeople's Eco-tour program. Eco-tour is a half-day excursion for inner-city children to tour TreePeople's 45-acre City of Los Angeles park, where they learn about the environment.

PHOTO BY LAURIE KAUFMAN, COURTESY OF TREEPEOPLE

Rooted in the community

Through ECF's help, an organization looks to reforest Calif. urban areas

Seventy percent of all surfaces in Los Angeles are paved. Ninety percent of all school grounds in the area are covered by asphalt. Hundreds of trees die every year because of smog and pollution. However, thanks in part to the support from the Employees Community Fund, one organization in Southern California is working to change that—one tree at a time.

Founded in 1973, TreePeople is a nonprofit organization in Los Angeles committed to reforesting urban areas, raising environmental awareness, and educating and inspiring people to protect and improve the natural element of their neighborhoods. As Peter Massey, TreePeople grants manager, puts it, "Our mission is about replacing cement with trees."

ECF of Southern California has supported TreePeople for 22 years. Most recently, ECF has supported the organization's Eco-tour program. Eco-tour is a half-day excursion for inner-city children to tour TreePeople's 45-acre City of Los Angeles park, where they learn about the environment, play outside on green grass and in the forest, walk on mulched trails and have a picnic lunch.

The Eco-tour program reaches 10,000 children from kindergarten to sixth grade each year, Massey said. He estimated that 750,000 children in the greater Los Angeles area do not live within walking distance of a park or a playground. In many cases, Eco-tour visits are a child's first visit to natural wooded areas. "Students sometimes feel apprehensive, asking if they'll see bears or

elephants here," Massey said. "The impact of these visits is tremendous."

In addition to the Eco-tour program, the Southern California ECF supports other TreePeople programs, including the Campus Forestry program, which contributes to "greening" schools in the Los Angeles area. This program's focus uses volunteer support to tear up asphalt at schools and get students involved in planning, selecting, planting and caring for trees on school grounds. In its 15 years, the program has reached more than 200 schools, but Massey said there are a lot more to go.

TreePeople relies heavily on volunteers, and they often turn to Boeing's volunteer office for support as well.

"Employees here place an importance on the environment," said Bev Hoskinson, ECF of Southern California executive director in Long Beach. "People value clean oceans and air and want to do whatever's possible to reduce pollution. Many feel that if we don't have a healthy environment, we don't have anything."

That investment is paying off. In part through the support of ECF and Boeing employees, TreePeople estimates it's planted nearly 2 million trees and educated nearly 1 million students.

"Our urban forestry mission is not so much about TreePeople planting trees, but inspiring others to plant and care for trees themselves, and to build and preserve their community," Massey said.

Indeed they are, one tree and one child at a time. ■

—Debbly Arkell



PHOTO COURTESY OF TREEPEOPLE

Students at Community Magnet Elementary School in Los Angeles participate in TreePeople's Campus Forestry program, which has received support from the Employees Community Fund. TreePeople's Campus Forestry gets students involved in planning, selecting, planting and caring for trees on school grounds.



Boeing employees are among the Center of Hope volunteers helping clean a mobile home park in Kansas. Most of the park's residents are from lower-income households. The effort exemplifies the "continuum of assistance" provided by Center of Hope.

PHOTO COURTESY OF CENTER OF HOPE

- "John" burned his hands in hot grease while working at a restaurant. He can't work while his hands heal, and his wife is unemployed. Unable to pay the rent, they were evicted and were homeless for two weeks.

- "Earl," hit by a car, lost his job and now lives alone while waiting for leg surgery. He has no money for rent if he pays utility bills and buys food, and no money for food and heat if he pays his rent.

The names of the people above may not be real, but their stories are. And, despite the dire beginnings to their tales, these individuals have enjoyed much happier endings, thanks to help and hope

they've been given since contacting the Center.

Over the last three years, the ECF in Wichita has provided nearly \$200,000 to the Center, which, along with other contributions the Center receives, goes directly to the people being helped.

"These people don't want to be in a shelter. They want help to make changes in their lives," Dinkel said. "If we can get them past the problem of homelessness, they can usually solve the rest."

The Center's statistics indicate that their clients do make those changes. In 2005, more than 69 percent of the applicants were new. Dinkel interpreted this number to mean that most of the people the Center helped the previous year were able to stay in their homes or moved without owing rent—as in the case of Rachel, John and Earl.

And if the one-time annual rent or mortgage payment isn't enough, the Center offers longer-term outreach. Sister Becky, the

Lending a hand, touching lives

Wichita's Center of Hope is 'in business of preventing homelessness'

The Center of Hope in Wichita, Kan., has a succinct mission. "We're in the business of preventing homelessness," said executive director George Dinkel. Thanks in part to the support of the Employees Community Fund in Wichita, Kan., in 2005 the Center provided nearly 4,400 people—homeless or on the verge of being homeless—with rent, mortgage payments and referrals to other social service agencies where they received additional help.

What causes a person to become homeless? The reasons are as unique as the individuals experiencing it, as illustrated below.

- At 61, "Rachel" makes \$200 per month at a temporary agency and pays \$400 per month in rent while supporting a husband who can't work. She makes up the difference from a savings account that will soon be depleted. Her nightly fear is losing their apartment because they can't pay the rent.

Boeing employees Daniel Weldon (left), Tawnya Bohn (second from right) and Brad Harris (right) are among those volunteering their efforts to improve a mobile home park. They're pitching in to assist Wichita, Kan.-based Center of Hope, which receives support from the Employees Community Fund.



PHOTO COURTESY OF CENTER OF HOPE

staff social worker, assesses clients' additional needs, such as parenting or budgeting skills, and counseling. For more than a year, Sister Becky worked with "Jessie" (not her real name), a single mother with one child. Jessie had bad credit from unpaid bills, payday loans and credit cards. Sister Becky obtained credit counseling and tax-return preparation assistance for Jessie. When Jessie voiced concern about being a good mother, Sister Becky signed her up for parenting classes.

With Sister Becky's help, Jessie is now employed, lives within a budget, and has improved her credit record enough that she now qualifies to buy a home for herself and her child, a goal she is pursuing. Said Sister Becky: "Support from the Employees Community Fund makes this continuum of assistance possible." ■

—Janet Boggs

Happy campers

ECF funds support a unique camp for children in central Florida

Most kids love summer camp, and 13-year-old Sam McLean is no exception. Considering Sam has been to Camp Boggy Creek in Florida three times, he must love it. But while Camp Boggy Creek features many of the activities and facilities you'd find in most summer camps—a lake for fishing, an arts and crafts area, etc.—it offers so much more.

That's because Camp Boggy Creek is part camp and part critical care center that caters to children afflicted with chronic or life-threatening illnesses. These conditions range from cancer to asthma to sickle cell anemia—15 medical specialties in all. By conducting weeklong or weekend camps for children with a specific condition, Camp Boggy Creek gives these kids a memorable, fun experience of just being normal—at no cost to them or their families.

For Sam, a son of a Boeing employee, it's a heart condition, and he's already had four surgeries to correct the problem. "They're absolutely worth the support," said Cheri McLean, a member of the International Space Station/Checkout, Assembly and Payload Processing Services (CAPPS) Configuration Management team at Kennedy Space Center, Fla., and Sam's mother. "I wish everyone could go to see the smiles on the kids' faces."

Located in Eustis, Fla., about a two-hour drive from Kennedy Space Center, Camp Boggy Creek was established in 1996. It's a member of the Association of Hole in the Wall Camps, the world's largest family of camps for children with serious illnesses and life-threatening conditions. Attendees are Florida children between the ages of 7 and 16. To care for the campers' conditions, the camp includes a medical facility that's run by a full-time medical director and her staff.

Because Camp Boggy Creek brings together children with the same medical condition, the campers realize they don't stand out from other kids.

"We want the kids to feel normal around their peers. Plus, we want them to be able to share their experiences, feelings and therapy," said Terry Zwicker, the camp's major gifts officer. "Any issues these kids have, we want them to understand that they're not alone."

As a sign of the bonding that takes place among campers, Zwicker noted that for the cancer session, the campers will feel comfortable enough with each other to remove the wigs they've worn to cover the hair loss caused by chemotherapy. And in support of these attendees, the counselors have been known to shave their hair for that week.

During the rest of the year, Camp Boggy Creek conducts illness-specific weekend camps for children—and invites the kids' family members to come along. That gives parents a chance to see what the camp is all about, as well as an opportunity to talk with parents of children with the same illness.

It was during one of these weekend camps that ECF representatives from Boeing Florida made their first visit. Lynn Pemberton, a principal contract administrator for Integrated Defense Systems at Kennedy Space Center and a member of the Florida ECF board, recalled that the camp took extraordinary measures to let the campers "be normal kids at play." Among the little touches that helped emphasize this point: The theater's seating area has spaces for wheelchairs, but they were in different rows, instead of being partitioned in one area, to let these children better blend into the crowd.

"They have tremendous respect for the kids and their families," Pemberton said.

Last year, the Florida ECF approved Camp Boggy Creek's request for funds to purchase two electric carts, similar to ones found on golf courses. "Some of the kids who come to camp need assistance in traversing the campgrounds," Zwicker said. "The carts have been a tremendous help for the kids and their families."

Zwicker said Boeing employees have been supportive of the camp and its mission. The camp has set up booths at ECF fairs where employees can learn more about nonprofit organizations the Fund supports. "We appreciate the support of the Employees Community Fund," Zwicker said. ■

—Junu Kim



Sam McLean, the 13-year-old son of Boeing employee Cheri McLean, is shown at Camp Boggy Creek. He attends this camp with other children who, like him, have a heart condition.

CLOSING IN ON A BETTER PROCESS

How Finance Transformation is helping Boeing close books each quarter with speed, accuracy

“The quarterly closing process should be a nonevent.” Corporate Controller Harry McGee’s statement represents a rarely achieved finance utopia that Boeing now may be approaching.

The closing turns reams of data into a certifiably accurate picture of Boeing’s financial position. Thanks to what’s known as Finance Transformation, the ongoing rationalization of disparate financial systems and processes, Boeing closed its first-quarter 2006 books in five days. Prior closings took nearly a month. These efforts demonstrate how teams that work in offices can benefit from incorporating Lean principles used in factories.

“We worked together to identify, standardize and simplify” the closing, said Rich Smoski, leader of the Finance Transformation program. “We approached it as a series of repeatable processes and drove for consistency, timeliness and accuracy.”

Finance Transformation is a significant commitment to improving productivity. While it was already under way when Boeing Chairman, President and Chief Executive Officer Jim McNerney focused the company on four growth and productivity initiatives in January, it represents what the initiatives are all about.

“Finance Transformation shows how applying a thorough, long-term approach to process improvement and commonality across the enterprise can bring great benefits,” said Rick Gross, leader of the Internal Services Productivity initiative. “It’s making Boeing Finance people more productive, it’s making our financial reports more reliable, it’s reducing cycle time, and it’s uncovering improvements that can be made in the future.”

In March, McGee expanded a separate effort that’s also aimed at improving Boeing’s financial disclosures. He chartered a team from Accounting, Communications, Investor Relations and Legal to simplify the first-quarter earnings report.



FRANK BUCK PHOTO

A cut above

To give the Boeing Finance team additional incentive to achieve a five-day close of the first-quarter 2006 books, Rich Smoski, vice president of Finance Transformation, offered to shave his head. The team delivered—and Smoski held up his end of the bargain.

The 2002 Sarbanes-Oxley law expanded disclosure requirements companies must meet. Partly in response to that, many companies’ quarterly filings (also known as a 10-Q report) became longer and harder to understand. But through reorganization, rewrites and elimination of redundancies, the team made Boeing’s first-quarter 10-Q eas-

ier to follow and about 17 percent shorter than last year’s. And they uncovered areas that can be improved in future filings.

“This team found a way to get this done quickly, and they delivered a document that people without degrees in accounting and securities law can understand,” McGee said. ■

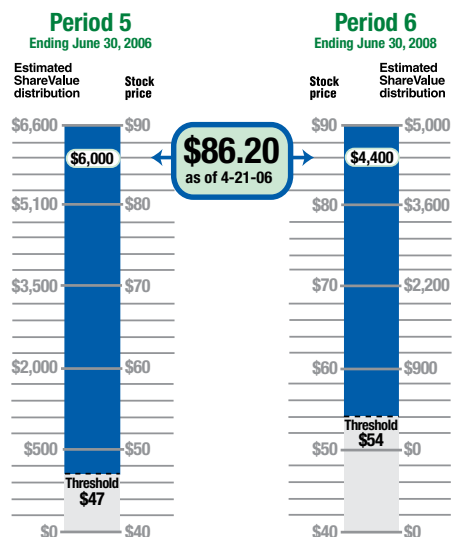
Boeing stock, ShareValue Trust performance

ShareValue Trust is an employee incentive plan that allows eligible employees to share in the results of their efforts to increase shareholder value over the long term. It is also a means for each employee to become an owner of the company.

The program—which runs for 14 years and ends in 2010—features seven overlapping investment periods. Each period lasts four years (except Period 1, which expired in 1998 and covered two years). The program is currently in Periods 5 and 6.

For each fund period, the value of the trust that exceeds 3 percent annual growth is distributed to eligible participants in the form of stock (with partial shares in cash). Participants on non-U.S. payrolls will receive cash in lieu of stock. The trust investment value can grow in two ways: when the market value of Boeing stock increases over the long term, and when shares are added to the trust because dividends have been reinvested.

The estimated Period 5 and Period 6 share price thresholds are \$47 and \$54 respectively.



Note: The two graphs show estimates of what a "full 4-year participant" ShareValue Trust distribution (pre-tax) would be for Periods 5 and 6 if the end-of-period average share prices were the same as the recent price shown.

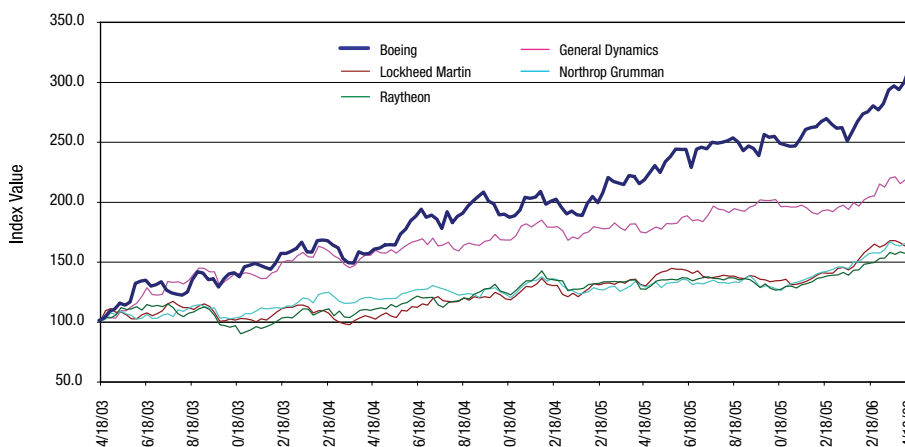
- Distributions are pro-rated based on the number of months an individual is eligible.
- The share price shown is the average of the day's high and low New York Stock Exchange prices.

In preparation for the end of Period 5, payout estimates have been updated to reflect current participant/employment data. Updates to this data will be made periodically.

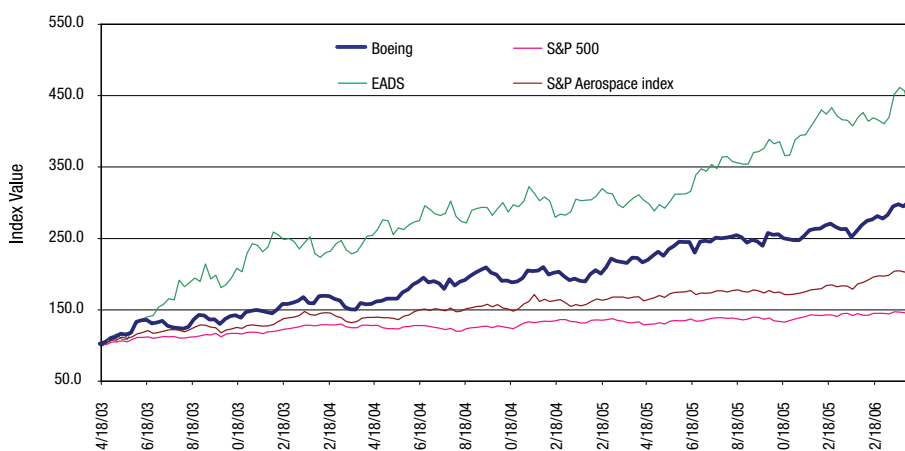
STOCK WATCH

The chart below shows the stock price of Boeing compared to other aerospace companies, the S&P 500 index and the S&P 500 Aerospace and Defense index. Prices/values are plotted as an index number. The base date for these prices/values is April 18, 2003, which generates three years of data. The prices/values on that date equal 100. In other words, an index of 120 represents a 20 percent improvement over the price/value on the base date. Each data point represents the end of a trading week.

Boeing vs. U.S.-based competitors (3-year)



Boeing vs. stock indexes and foreign competitors (3-year)



Comparisons: 4-week, 52-week

	Price/value as of 4/14/06	Four-week comparison		52-week comparison	
		Price/value as of 3/17/06	Percent change	Price/value as of 4/15/05	Percent change
BOEING	82.93	77.85	6.5%	57.00	45.5%
U.S. COMPETITORS					
General Dynamics**	63.89	65.33	-2.2%	51.95	23.0%
Lockheed Martin	72.83	75.95	-4.1%	59.31	22.8%
Northrop Grumman	68.33	69.83	-2.1%	54.57	25.2%
Raytheon	43.69	45.69	-4.4%	36.83	18.6%
FOREIGN COMPETITORS					
EADS *	32.28	34.40	-6.2%	23.10	39.7%
U.S. STOCK INDEXES					
S&P 500	1289.12	1307.25	-1.4%	1142.62	12.8%
S&P 500 Aerospace and Defense Index	341.18	341.95	-0.2%	271.45	25.7%

* Price in Euros

** Price reflects a 2-for-1 stock split that took place in March 2006

SERVICE AWARDS:

50 Years

Daniel Spedden

45 Years

Michael Boebert
Richard Byrom
Andrew Gray
Marcia Hendricks

40 Years

Mitchell Ajifu
Richard Bagley
Gary Baker
Howard Barks
Raymond Brown
James Canavan
Robert Carlson
Joan Carnes
Earl Clark
Michael Clark
David Commens
Larry Dean
Allen Deshler
Richard Digregorio
Gregory Dillon
Charles Echols
Heinz Fromm
Richard Graham
Mose Harris
Wayne Harris
Virginia Hennessee
Michael Hodson
Raymond Jex
Wallace Johnson
Kenneth Kawado
Nelson Kolaski
William Koser
William Lepinski
George Logue
Donald MacDonald
James McKinley
Gerald McPeck
Karen Millward
Armand Montano
Frank Osborne
Merle Pautsch
Jack Plack
Frank Powers
Tommy Pruet
Bobbie Richardson
Gerald Schulte
Alan Spreen
Karen Stucky
John Thompson
John Van Dalen
Ronald Vance
Maxine Venson
Patrick Watson
Lee Wible
Dale Widell
Robert Widell

35 Years

Donald Anderson
Patricia Ash
Daniel Baerthel
David Baertschy
Arlene Berg
Arlene Bola
Richard Brainard

Peter Broadnax
James Brown
Harlan Brune
Jack Burns
Henry Cohen
Larry Costner
Roger Dale
Jon Davis
Julian Drohomereski
Clarence Ekwall
John Elliott
Vonnie Fisher
Ronald Ford
Michael Hamilton
Brenda Jackson
David Knowlen
Patrick Lake
Lyle Lariviere
Loree Mack
Leon Marcus
Marsha Meyering
Charlotte Ochoa
James Parks
Edward Rodgers
Perry Rose
Wayne Salonka
Allen Schafer
Robin Smith
Samuel Taplin
June Waitenburg
Mary White
Gary Wilke
Clifford Willis
Paul Witbrodt

30 Years

Marlene Anderson
Eric Archer
James Arnell
Dennis Beck
Joellen Bernadelli
Richard Billieu
Randy Binger
Carl Blevins
Albert Bloch
Wade Brodin
John Bullock
Scott Carnegie
Paul Claussen
Timothy Connoley
Robert Crane
Dennis Dees
Joseph Empens
Rita Forester
William Freiberg
Margie Fry
Steven Gelb
Jeffrey Gilmor
Narciso Gomez
Linda Green
Deanna Guerrero
Elaine Hadnot
Gregory Haenchen
Linda Halbrook
Jill Hansen
Arthur Hemphill
Joan Herter
Joan Hogaboam
Dorene Horner
Linda Hudnut

Boeing recognizes the following employees in May for their years of service.

Sherman Hughes
James Isbell
Randy Jamison
Robert Judge
Richard Keith
Jong Kim
Randal Knoblauch
John Koenig
Robert Lauri
Dene Leach
Danny Loholt
Jeanne Long
Dennis Mann
William Manowski
Richard Nelson
Russell Nelson
Gary Nicholas
Diana Noe
James Ogonowski
Kevin Ohara
Angelina Pali
Billie Paulsen
Larry Pecaut
John Pokorny
Patrick Reilly
Donna Reyland
Richard Rico
Cindy Robbins
John Ruffin
Evelyn Russell
Antonio Saldate
Richard Scarr
Richard Scharnhorst
Michael Schirman
Edward Schmidt
Harold Schott
James Schuessler
Norman Seithel
Michael Skiffington
Jeffrey Smith
Thomas Sorrell
Edward Sterling
Masako Takarada
Wesley Tamabayashi
Linda Tellez
Romelle Thompson
Leroy Trame
Lester Turner
Daniel Virnig
Gerard Vitale
Robert Webster
Kendall Weis
Barbara Weston
Donald Westrich
Donnie Williams
Brian Wilson

25 Years

Dennis Adams
Margaret Agnew
Mark Allen
Ponciano Andazola
Catherine Anderson
Laurel Anderson
Mark Andrews
Donald Armstrong
Renee Arnold
David Arnot
James Ashcraft
Norman Aubin

Blair Austin
Michael Bagley
Antonio Bamba
Charles Belden
Gregory Benham
Lesley Blakeman
Patricia Blanchard
Robert Blick
Carl Boekemier
Richard Bond
Dorothy Brands
Lillie Bratti
Judy Brewer
Robert Briggs
Christopher Broecker
Curtis Bry
Thomas Buckner
Frank Bustamante
Gregory Butcher
Clarita Cabigting
Beverly Cain
Samuel Campos
Robert Carignan
Berene Carstensen
Joseph Cassidy
Stephen Chaney
Shean Chang
Leonel Chiu
Lawrence Church
Donna Clifton
David Clingan
Richard Cogger
Ismael Corral
Karen Cox
Vincent Creisler
James Cruce
Jerry Curtin
Jimmie Curtin
Daniel Dahl
Stephen Dauzenroth
Brian Davis
Joseph Davis
Victoria Davis
James Dawson
Michael Dimeo
Cecil Dissanayake
Gail Dohmen
Donna Douglas
Robert Dunlap
Keith Duren
Carl Dyke
Thomas Faltus
Alan Farrar
William Fay
Thomas Fisher
Timothy Fitzpatrick
Mark Franzoi
Philip Frohne
Regis Fugini
Magdalena Galban
David Garbutt
Richard Garemore
Ada Garland
Michael Garnett
Miguel Garza
Philip Gatto
Steven Gaxiola
Gregory Gesell
John Gibson
Patricia Gibson

Kathy Goods
Roseann Granlund
Howard Griffin
Paul Griffin
Corrine Grimes-
Washington
Peggy Guthridge
Robert Guzman
Thomas Gwynn
Tim Hackett
Robert Hackman
Carl Hahn
Thomas Hamblen
Kenneth Hanf
John Harford
David Harrington
Steven Harrison
Paul Hatch
Billy Heady
Dennis Hecht
William Heckerth
William Henkel
Sandee Herzog
Gerard Hespern
Jean Hitch
Barbara Hoeckelmann
Carla Hoefft
Eric Hogan
Carole Holt
Mark Holt
James Howe
Mark Howe
Timothy Hoyle
Gary Huddleston
John Humble
Kevin Hunter
Jane Hutchinson
Emma Jackson
Harold James
Keith Jarett
Michael Jerman
Gregory Johnson
Loren Jones
Marcus Jones
Keith Keppel
Gilbert King
David King
Owen King
Kim Kirchoffner
Robert Kliman
Jeffrey Knolle
Pamela Kochmann
Edward Kruse
Bryan Kury
Robert Laird
Max Lake
Debra Lamond
Mark Langley
Janette Lawrence
Robert Leach
John Leghorn
David Lehmann
Burt Lemen
Vincent Lieu
Tung-Ying Lin
Laura Liszewski
Bud Little
Chung-Chiu Liu
James Loch
Karen Losey
Gary Louiso
Larry Lowe
Joni Lund

Eduardo Luraghi
Janet Lynch
Jon MacDonald
Judy Macias
Joseph Malnar
Salvatore Manganelli
Paul Manley
John Matsantonis
Kirk Matteson
Ralph Mattingly
Dennis McCain
Patrick McGee
Mark McGregor
Robert Meek
Robert Mendenhall
Sheila Mendoza
Mary Mensio
Paul Metcalf
Karen Micka
Denise Minker
Brian Minter
Robert Mir
Hubert Moen
Floyd Moore
Roger Moore
Ramona Munoz
Richard Neill
Mark Nelson
Anthony Nguyen
Dinh Nguyen
Steven Norman
Merle O'Brien
Javier Ochoa
Alan Okazaki
Linda Olsen
Jose Orellana
John Orf
Pablito Pacleb
James Padgett
Carol Paine
Arlo Palmer
Edward Panco
Joseph Parke
Kenneth Patterson
Robert Perry
Patricia Person
Louis Peterman
Loretta Peters
Raymond Petit
Steven Phillips
Janet Piegrass
Edward Porisch
Brett Powers
Marinel Reagan
Elaine Reddick
Stanley Reeves
Robert Reichardt
Billie Reifschneider
Theodore Reinstra
James Reynolds
Forrest Richardson
Allan Richter
David Robertson
Laurie Robertson
Craig Rockwell
Brian Rodenborn
Jose Romero
Juan Ruiz
Melody Rumsey
Joseph Russell
Paul Ryan
Kaatja Ryder
William Sagan

David Sardinas
Dale Sargent
William Sayre
Charles Schaff
Lucinda Schneider
Eugene Schultz
Douglas Scott
Frances Seagren
Leigh Sedgwick
Sandra Sharpe
Walter Shearn
Greggory Shibuya
Rick Simonsen

Charles Singh
Steven Siqueland
David Skovgard
Dana Small
Michael Smith
Robert Smith
Taura Smith
Robert Spooner
Mark Stahlschmidt
Bradley Steele
Mark Stetler
David Stevens
Wayne Stoddart

Kenneth Strader
Terry Strahin
Don Stratton
Denise Strickland
Marc Swenson
Gary Takasumi
Midge Tallman
Sunil Tandon
James Tesdall
Dennis Testa
Tom Thomas
Douglas Thonn
Marvin Till

Bay Tran
Nie-Long Tse
William Turner
Gary Urda
Kurt Utterback
Mark Van Leuven
Mark Van Tine
Randy Vanwagner
Corey Verburg
Terry Vergera
Stanley Vickers
Robert Vincler
Lucio Volpe

Irene Wade
Ruth Waggoner
Norma Wagner
John Waidmann
Linda Walker
George Watts
Martin Welsh
Michael White
Brian Widell
Eldon Wiegert
Michael Wilbur
Loretta Wilkinson
James Williams

Stephen Williams
Michael Wilson
Jeannine Wolfe
Carlton Wong
Andrew Woodcock
John Workman
George Young
Robert Zettwoch
Michael Ziccarelli

RETIREMENTS:

The following employees retired in March from The Boeing Company.

Jose Abeyta, 34 Years
Francisco Acosta, 34 Years
Filomena Adams, 27 Years
Varooj Aivazian, 9 Years
Roy Akioka, 17 Years
Armando Alvarez, 35 Years
Douglas Anderson, 25 Years
John Anderson, 19 Years
Jonathan Anderson, 15 Years
Lawrence Anderson, 37 Years
James Armstrong, 17 Years
Donald Arrowsmith, 18 Years
Jerald Arvisais, 37 Years
Antoinette Bailey, 22 Years
Roger Bailey, 25 Years
Barbara Bartz, 25 Years
John Bateman, 40 Years
Harold Bates, 23 Years
Gerald Beffa, 30 Years
Harold Belcher, 45 Years
Thomas Bell, 45 Years
Ronald Bennett, 21 Years
Cherry Bernard, 23 Years
Robert Berry, 25 Years
Robert Berthiaume, 27 Years
George Biondic, 3 Years
Delores Blount, 23 Years
Robert Bonnes, 22 Years
Jacque Branson, 34 Years
Larry Breeland, 20 Years
Donald Breneman, 19 Years
Gerald Brennan, 42 Years
Floyd Brown, 31 Years
Lois Brown, 34 Years
Prishra Bryant, 29 Years
Richard Buckwitz, 33 Years
Jose Burciaga, 27 Years
Richard Cadle, 18 Years
Dennis Campbell, 26 Years
Kim Campbell, 20 Years
Deloris Carey, 18 Years
Sergio Carrion, 32 Years
James Carnal, 1 Year
James Casey, 22 Years
Robert Casillas, 43 Years
Keith Chilcutt, 18 Years
Robert Ciao, 28 Years
William Cooper, 38 Years
Darrell Corbin, 18 Years
John Coumerilh, 22 Years
Gary Crocker, 16 Years
Larry Crozier, 26 Years
Maurice Crum, 44 Years

Allie Curry, 44 Years
Gerald Dain, 21 Years
Marcia David, 35 Years
Dareld Davis, 21 Years
Helen Davis, 24 Years
Thomas Davis, 21 Years
Ray Dayley, 40 Years
Joseph Delmore, 16 Years
Terry Delo, 32 Years
Barbara Dennis, 27 Years
Chester Densmore, 42 Years
Gary Dipasquale, 23 Years
Bernice Dison, 24 Years
Michael Dodd, 36 Years
Douglas Doescher, 40 Years
Michael Douthett, 26 Years
Daniel Eastman, 5 Years
William Emerson, 25 Years
Albert Fawcett, 35 Years
James Fels, 27 Years
Fredrick Ferguson, 14 Years
Gary Fermstad, 35 Years
Joel Fink, 29 Years
Loren Foster, 23 Years
John Franich, 38 Years
Carol Franks, 26 Years
Vickie Frischmann, 21 Years
Ernest Gartiez, 37 Years
Harold Gatenby, 35 Years
Willard Goad, 6 Years
Donald Goff, 13 Years
Robert Golden, 26 Years
Katie Golphin, 27 Years
Anthony Gonzales, 25 Years
Vickie Graham, 29 Years
Donald Green, 17 Years
Keith Greenup, 28 Years
Kathleen Greer, 29 Years
Neal Gronlund, 21 Years
Jerry Gruol, 28 Years
Frank Guzman, 46 Years
Donald Gwynne, 20 Years
Ruby Haggermaker, 13 Years
George Hall, 27 Years
Louis Hall, 31 Years
Pamela Hardman, 27 Years
Danny Hartness, 18 Years
Robert Hein, 23 Years
Vincent Higbee, 34 Years
Bruce Higgins, 29 Years
Rogelio Holguin, 7 Years
Toni Hollycross, 36 Years
Howard Hopwood, 20 Years

Oscar Hubert, 39 Years
John Hurd, 26 Years
James Hurley, 8 Years
Morton Hurt, 24 Years
Margaret Isaacson, 28 Years
Linda Ito, 18 Years
Dan Jackson, 10 Years
Denise Jackson, 31 Years
Michael Jacobs, 20 Years
Dallas Jensen, 27 Years
Douglas Johnson, 23 Years
Nicholas Kachevas, 40 Years
Elizabeth Karner, 28 Years
Richard Katz, 16 Years
Carl Kaufman, 18 Years
James Keller, 26 Years
Stephanie Kelly, 18 Years
Terence Kelly, 31 Years
Christopher Kent, 28 Years
Jerome Kilner, 36 Years
Colleen Kirkegaard, 32 Years
Linda Kline, 20 Years
John Koeller, 36 Years
Linus Kovar, 7 Years
Mary Kozlowski, 27 Years
Paul Kruse, 35 Years
Thomas Kullman, 32 Years
Paul Kuntz, 27 Years
James Kurihara, 18 Years
Tibor Lak, 37 Years
John Lalonde, 38 Years
James Lambert, 35 Years
Jana Lambert, 21 Years
Patricia Lambert, 4 Years
Mary Lampman, 29 Years
Philip Lampman, 27 Years
Peter Lancaster, 1 Year
Larry Larose, 40 Years
David Lauer, 42 Years
Carol Lawler, 33 Years
Thomas Lawton, 20 Years
Peter Laythe, 26 Years
Peter Leake, 27 Years
Majelle Lee, 16 Years
Daniel Leeder, 50 Years
Sharon Lifritz, 35 Years
Jerry Lindell, 36 Years
Edward Lindgren, 32 Years
Moonyeen Lindholm, 25 Years
Dale Little, 16 Years
Rita Livingstone, 17 Years
William Logue, 11 Years
Daniel Lorch, 33 Years

Robert Lord, 31 Years
Paul Luebbers, 42 Years
Sharon Luther, 31 Years
Joseph Luzar, 25 Years
Thaddeus Martin, 28 Years
Bruce Marvin, 27 Years
Denziel Mashore, 29 Years
Nicholas Masington, 17 Years
David Mathena, 32 Years
Hollis Matthews, 40 Years
Timothy McCarthy, 20 Years
John McConnell, 43 Years
Chester McCray, 35 Years
Jack McDonald, 17 Years
Lilia McDonald, 13 Years
Sara McDonald, 22 Years
Marvin McGhan, 35 Years
Robert McKenzie, 40 Years
Jerry McKimney, 5 Years
Arthur McKinney, 29 Years
Glenn McKinney, 18 Years
Linda McLeran, 20 Years
James Medeiros, 21 Years
Cecil Miller, 20 Years
Keith Miller, 30 Years
Basil Minnich, 39 Years
Larry Mitchell, 40 Years
Elvan Mollet, 36 Years
Michael Monaghan, 22 Years
James Morgan, 44 Years
Frank Morine, 34 Years
Lawrence Morrill, 43 Years
Marvin Muller, 11 Years
Dan Norman, 24 Years
Maggie Nowakowska, 26 Years
Nathan O'Brien, 43 Years
Ladonna Olivier, 20 Years
Robert Pape, 34 Years
William Parker, 39 Years
Geraldine Pederson, 26 Years
Joseph Pekara, 26 Years
Ernest Peralta, 17 Years
Jean Permenter, 18 Years
Robert Pierce, 39 Years
Donald Pike, 20 Years
William Prankard, 16 Years
Joseph Pratte, 27 Years
Stephen Probstfeld, 38 Years
Virginia Ralls, 27 Years
Shirley Ramuta, 36 Years
Robert Rance, 20 Years
Carol Rangaram, 20 Years
William Raspotnik, 8 Years
Marian Remy, 16 Years
James Rhen, 38 Years

George Richman, 20 Years
James Riske, 30 Years
James Roberts, 33 Years
Roger Roberts, 40 Years
William Robinson, 42 Years
Steven Rocovitz, 32 Years
Reynaldo Rodriguez, 33 Years
Ronald Roelling, 14 Years
Roberta Rothwell, 28 Years
George Rugge, 29 Years
Thomas Rutkowski, 20 Years
Norman Sahley, 2 Years
Thomas Sauer, 1 Year
Sharon Schank, 31 Years
David Schroeder, 20 Years
William Schultz, 40 Years
Emaly Scott, 25 Years
Mary Seay, 33 Years
Gerald Sexauer, 40 Years
Mary Shaw, 18 Years
Gordon Shepard, 37 Years
Diane Shew, 27 Years
Boake Shimizu, 35 Years
Leonard Siddhartha, 32 Years
William Slowik, 28 Years
Alan Smallman, 27 Years
Dina Smith, 19 Years
Gordon Smith, 20 Years
Gordon Smith, 28 Years
Bruce Soileau, 23 Years
Robert Sproule, 17 Years
Harish Srivastava, 28 Years
David Stafford, 33 Years
Gail Steadman, 43 Years
Frank Steinberger, 41 Years
Harold Stephens, 43 Years
Stephen Stevenson, 28 Years
Robert Stewart, 18 Years
Clarence Stonewell, 23 Years
Linda Stratton, 27 Years
Paul Taylor, 32 Years
William Temple, 26 Years
David Thompson, 27 Years
James Thompson, 41 Years
Richard Thompson, 30 Years
Chester Thorn, 40 Years
Ann Tidwell, 24 Years
Kathleen Tinney, 24 Years
Robert Traister, 9 Years
Henry Traylor, 22 Years
Linda Turner, 12 Years
Marsha Ullrich, 30 Years
Markland Vadakin, 33 Years
Hans Vandervelden, 45 Years
Frank Vasconcelles, 42 Years
Frank Vertovec, 16 Years

Antoinette Vitale-Carroll, 17 Years
 Robert Vos, 36 Years
 Hiep Vu, 24 Years
 Barbara Wade, 9 Years
 Dawn Wakefield, 38 Years
 Joann Walton, 35 Years
 Roosevelt Warren, 20 Years
 Donald Watkins, 16 Years
 Gerald Watson, 28 Years
 Orville Weber, 40 Years
 Ronald Wehde, 39 Years
 Robert Weideman, 10 Years
 Larri Werner, 37 Years
 Karen Wescott, 19 Years
 Janet West, 20 Years
 Steve Wheeler, 35 Years

Clyde White, 17 Years
 George White, 9 Years
 Paul White, 30 Years
 Bonnie Whitehouse, 5 Years
 June Whitnall, 29 Years
 Janet Whitney, 29 Years
 Richard Wickham, 16 Years
 James Wieldt, 40 Years
 Leslie Wier, 27 Years
 John Wiitala, 18 Years
 Joanne Wildman, 21 Years
 Curtiss Wiler, 36 Years
 Glenn Wiley, 25 Years
 William Wilhelm, 28 Years
 Ray Wilkins, 38 Years
 John Willard, 36 Years
 Leland Williams, 30 Years

Harry Wilson, 27 Years
 Janeen Wilson, 31 Years
 Versie Wilson, 19 Years
 David Wise, 8 Years
 Carol Wolfe, 33 Years
 David Wolters, 37 Years
 Constance Wood, 25 Years
 Robert Wood, 33 Years
 Richard Woodhouse, 39 Years
 Everette Woods, 22 Years
 Irving Woods, 26 Years
 Wayne York, 37 Years
 Hui-Ling Yu, 16 Years

IN MEMORIAM

The Boeing Company offers condolences to the families and friends of the following employees, whose deaths recently have been reported to the company.

Gary Adams, engineer/scientist; service date Jan. 2, 1997; died March 25.
Donald Atcheson, engineer/scientist; service date Aug. 21, 1990; died March 31.
Lynda Behnke, staffing specialist; service date Oct. 14, 1996; died April 3.
Michael Bowman, engineer/scientist; service date Aug. 30, 1973; died March 17.
Jasper Bryant Jr., industrial security manager; service date Nov. 16, 2000; died March 17.
Robert Brown, milling operator; service date April 29, 1985; died March 20.
Dirk Burgess, engineer; service date Feb. 10, 1993; died April 5.
Catherine Davis, customer support engineer; service date Nov. 6, 1991; died April 5.
John "Steve" Dunn, manager; service date Sept. 19, 1988; died March 17.
Randall Ferguson, mechanic; service date Feb. 3, 1989; died March 25.
Robert Hill, customer training specialist; service date Sept. 17, 1987; died April 2.
Ronald Howard, aerospace production technician; service date Dec. 17, 1985; died March 18.
Donald Huff, mechanic; service date April 19, 1999; died March 14.
Raymond Kissinger, program analyst business manager; service date June 22, 1966; died March 23.
Edward Kuefler, engineer; service date Dec. 17, 1958; died March 15.
Ronald Lambert, field test technician; service date Oct. 13, 1995; died March 21.
Edgar Mangulis, technical illustrator; service date Sept. 2, 1970; died April 3.
Daniel Marx, engineer; service date Nov. 17, 1972; died March 29.
Ervin McDonald, assembler; service date April 18, 1996; died April 3.
Bruce Navarro, mechanic; service date Aug. 3, 1998; died April 9.
Jesus Prado, mechanic; service date Jan. 21, 1987; died March 19.
Marshall Rel, assembler; service date May 1, 1978; died April 3.
Richard Roff, communication specialist; service date Feb. 3, 1986; died April 14.
Carolyn Romano, staff analyst; service date Nov. 10, 1997; died April 13.
Dennis Savini, procurement agent; service date March 17, 1980; died March 30.
Mark Schultz, machine repair mechanic; service date March 11, 1986; died April 6.
Ronald Shinn, engineer/scientist; service date Aug. 12, 1985; died March 29.
Ann Turner, painter; service date July 7, 1986; died March 17.
Clayton Vance, mechanic; service date Aug. 6, 1984; died March 29.
Julian Wilk, embedded software engineer; service date Aug. 30, 1997; died March 19.

IN BRIEF

PENTAGON OKS RESTARTING TANKER PROCUREMENT PROGRAM

In an announcement that's likely to pit Boeing against a Northrop Grumman-European Aeronautic Defence and Space Co. team, the Pentagon last month said it's allowed the U.S. Air Force to resume a program for buying refueling airplanes.

In late April, the Air Force issued a request for information (RFI) from industry. The RFI seeks input on the next-generation aerial refueling platform. According to an Air Force press release, the RFI also calls for information on "capabilities to complement the recapitalization effort."

According to an April 17 DoD news release, a draft request for proposal is expected in fall 2006, with a final request for proposal to follow in January 2007. The award of the contract is expected in summer 2007, the news release said.

According to various news reports, the Northrop Grumman-EADS team is expected to offer a tanker based on the A330 airplane from Airbus, which is 80 percent owned by EADS.

Boeing has extensive tanker expertise. The company currently is producing 767-based tankers for Italy and Japan and created the Air Force's KC-135 and KC-10 tankers. "I believe we have a great team in place, and we will be ready to compete," said Mark McGraw, vice president, Boeing Tanker Programs.

BOEING, LOCKHEED MARTIN EYE INDIAN NAVY AIRCRAFT PACT

Boeing and Lockheed Martin last month submitted bids for maritime surveillance aircraft to the Indian navy.

Boeing's bid features an India-specific configuration of the P-8A Multi-mission Maritime Aircraft it's building for the U.S. Navy, the company said in an April 13 announcement. The P-8A is based on the Boeing Next-Generation 737 airplane.

"We have proposed a unique system that will enhance the capability of the Indian navy in antisubmarine and antisurface warfare," Rick Buck, Boeing program manager for P-8A international programs, said. "The increased range, speed, radius of action and advanced combat power inherent in our 21st century solution will enable the Indian Navy to fully patrol and influence events in its entire operational region."

Lockheed Martin is offering refurbished P-3 Orion maritime patrol aircraft. The Indian navy P-3s would carry new wings, according to *Defense Daily*. A Lockheed Martin spokesman told the publication new horizontal surfaces for the aircraft will extend the aircraft's service life by about 20 years.

According to *Defense Daily*, the Indian navy is looking to replace its fleet of Russian-built TU-142 "Bears" with eight aircraft that can perform long-range maritime reconnaissance and hunt submarines. Under the program's current schedule, the service expects to select an aircraft in 2007 and take delivery of the first aircraft within 48 months of contract award. ■



To recognize a \$15 million donation from Boeing to the Smithsonian Institution's National Air and Space Museum, the central structure at the museum's Steven F. Udvar-Hazy Center near Washington, D.C., was named the Boeing Aviation Hangar.

AROUND BOEING

BOEING MAKES RECORD GIFT TO SMITHSONIAN

Boeing has donated \$15 million to the National Air and Space Museum, which is part of the Smithsonian Institution, in continued support of the museum's education and preservation efforts. It is the single largest corporate gift ever presented to the Smithsonian.

The gift will help fund museum programming, the care of artifacts and remaining construction at the museum's Steven F. Udvar-Hazy Center, located near Dulles Airport in Chantilly, Va. In recognition of the donation, the central structure at the Udvar-Hazy Center will be known as the Boeing Aviation Hangar. A sign designating the new name was placed in the hangar last month.

"Once again, Boeing has stepped forward with a timely, magnanimous gift," said Lawrence M. Small, secretary of the Smithsonian. "Their past generosity has supported Air and Space museum lectures, galleries, preservation and the building of the Udvar-Hazy Center itself. We are very grateful for this vital support from a true friend of the Smithsonian."

SHANAHAN ATTENDS RONALD REAGAN MISSILE DEFENSE SITE DEDICATION

Pat Shanahan, vice president and general manager of Boeing Missile Defense Systems, attended the April 10 dedication of missile defense facilities at Vandenberg Air Force Base, Calif., as the "Ronald W. Reagan Missile Defense Site."

The ceremony paid tribute to President Reagan for his commitment to advancing the development of missile defense technologies to protect the United States, its deployed forces, allies and friends from a ballistic missile attack. Among the dignitaries at the ceremony were U.S. Air Force Lt. Gen. Henry "Trey" Obering, Missile Defense Agency director; U.S. Deputy Secretary of Defense Gordon England; former California Governor and U.S. Sen. Pete Wilson (R-Calif.); and Sen. Ted Stevens (R-Alaska).

Today, two installations in the United States house Ground-based Midcourse Defense system interceptor missiles—the Reagan site and Ft. Greely, Alaska. Boeing is prime contractor for the Ground-based Midcourse Defense system, the centerpiece of the Missile Defense Agency's layered ballistic missile defense architecture. ■

CALENDAR OF EVENTS

May 8–10: SpeedNews Fourth Annual Aerospace & Defense Suppliers Conference. Los Angeles. See www.speednews.com/Conference/defense.html

May 16–21: ILA 2006 (Berlin Air Show). Berlin. See www.ila2006.de

June 14–15: 12th Annual Asia Pacific Airline Engineering & Maintenance Conference. Singapore. See www.aviationindustrygroup.com/index.cfm?pg=139

July 17–23: Farnborough International Airshow 2006. Farnborough, U.K. See www.farnborough.com

Aug. 29–31: Unmanned Systems North America 2006. Orlando, Fla. See www.auvs.org

Sept. 12–15: World Airline Entertainment Association 27th Annual Conference & Exhibition. Miami. See www.waea.org/events/conference/2006/indexmain.htm

Sept. 17–19: Routes. The World Route Development Forum will conduct its 12th annual conference. Dubai, United Arab Emirates. See www.routesonline.com

Sept. 18–20: SpeedNews Seventh Annual Aviation Industry Suppliers Conference. Toulouse, France. See www.speednews.com/Conference/euroconference.html

Sept. 20–24: Africa Aerospace and Defence Exhibition. Waterkloof Airbase, South Africa. See www.aadexpo.co.za

Sept. 20–24: 2006 Air Carriers Purchasing Conference. San Francisco. See www.acpc.com

Oct. 17–19: National Business Aviation Association 59th Annual Meeting & Convention. Orlando, Fla. See www.nbaa.org

Oct. 25–27: Cargo Facts 2006. Miami Beach, Fla. See www.cargofacts.com

Feb. 6–7: Asian Business Aviation Conference & Exhibition. Hong Kong. See www.abace.aero

Boeing Frontiers assembles the above listings for the convenience of its readers only, and they do not constitute an endorsement by The Boeing Company. Times, dates and subject matter are subject to change or cancellation. If you have any items you wish *Frontiers* to consider for the Calendar, please e-mail them to boeingfrontiers@boeing.com, or send them by regular mail to *Boeing Frontiers* magazine, 100 N. Riverside, MC: 5003-0983, Chicago, IL 60606-1596.



ED TURNER PHOTO

Reaping rewards—faster—thanks to Boeing Recognition team

How Boeing recognizes employees for a job well done is easier in 2006, thanks to the efforts of the Rewards and Recognition Team. Our team included a core group of eight people and eventually involved more than 30 Boeing employees. We took on the challenge of merging three separate recognition programs—Pride@Boeing, Service Awards and Cash Awards—under one administration and a single supplier. By doing so, we consolidated many processes and dramatically improved the delivery to our end user: every Boeing employee. The process for nominating a Boeing employee for a Pride@Boeing award was reduced from 30 steps to four. In some cases, it took up to 28 days to receive an award. Thanks to a real-time, interactive Web site and supplier tools, an employee now is nominated on-line and can receive Pride@Boeing award points and order merchandise in one day.

We moved the Pride@Boeing and Service Awards sites to the new administrator with just a few days of down time and worked throughout the holiday break testing the site, ensuring its readiness at the start of 2006. The Cash Awards site now offers new tools to give managers expenditure visibility and help track awards received by their employees.

By reducing transaction costs and cycle time—and increasing the productivity of our functions, as well as that of our users—our work supports the Internal Services Productivity initiative.

Our work continues, but we can really see how our efforts last year set the foundation for helping Boeing better acknowledge its most valuable asset—Boeing employees. ■

Clockwise from front

Jane Baugh
Procurement Agent,
SSG Management and
Procurement

Rick Carbone
Project Manager,
Puget Sound HR
Service Center

Nancy Kaiser
Pride@Boeing
program support

Jim McCurdy
Corporate
Compensation

Jacqueline Coulter
Manager, Puget
Sound HR
Service Center

Jen Todd
Cash Awards
program support

Linda Caywood
HR Business
Processes
and Support

Not pictured: Mike Doherty, Corporate Compensation

IN THE ARTS, WE FIND OUR WINGS.



 **BOEING**
Forever New Frontiers

This ad, the second in a new series from the company's portfolio of community ads, reinforces Boeing's support of the arts, which help enrich and enlighten the lives of people worldwide. These ads are published in support of arts-related events.

FROM SACRIFICE, THE FOUNDATIONS OF FREEDOM RISE.

This Memorial Day, let us remember those whose sacrifice made our freedom possible. Each day is a reminder. We can never thank them enough.



This ad was created to demonstrate Boeing's appreciation and gratitude for the U.S. Armed Forces. Part of an integrated effort, this print ad will run in The Washington Post and The Washington Times, as well as in more than 80 regional, trade and military publications. The campaign will also feature complementary TV and online components.