

Thinking greener

Boeing unveils 5-year environmental targets

By CHAZ BICKERS

Boeing's newest set of performance targets will help everyone at the company tackle a challenge of global proportions: the environment.

Five-year targets rolled out in January will reduce energy use, greenhouse gas emissions and hazardous waste to more than offset Boeing's increase in production rates. They'll also boost recycling of waste that would go to landfills.

The targets are the first major actions from Boeing's new Environment, Health and Safety unit, which is part of Engineering, Operations & Technology. EHS was formed last year with a charter to continuously improve safety and environmental performance for every aspect of Boeing's operations, including sourcing, design, manufacturing and recycling. EHS also will provide strategic direction for Boeing to sharpen its focus and accelerate development of more environmentally progressive products and services.

"We must take bold action, and at Boeing we know that targets work," said Mary Armstrong, EHS vice president. "First, we can measure and improve the most important areas of concern. But perhaps more importantly, we can get everyone at the company thinking about the environment. That's critical to achieving new advances in our products and services."

Boeing's record of improving environmental performance at its operations is good. Since 1998, the company has cut energy use by 37 percent and hazardous waste by more than half. The challenge for the coming five years, however, will be to hold down waste and emissions while production rates grow significantly.

The new targets aim at 25 percent improvement goals for solid waste recycling rates, energy efficiency and carbon dioxide emissions intensity; and a comparable goal for hazardous waste reduction. By meeting those goals, Boeing will reduce its current total energy use, carbon dioxide emissions

and hazardous waste by 1 percent—even with a significant production increase.

"Three years of record-breaking success of our Commercial Airplanes (business) has an effect that we need to acknowledge and address," Armstrong said.

As a technology leader, Boeing is pioneering a number of aviation solutions for reducing greenhouse gases at the heart of climate change concerns. Among them:

- Making its airplanes more fuel-efficient. The fast-selling 787 Dreamliner, which will be 20 percent more efficient than the airplanes it will replace, continues Boeing's long-term efforts to improve fuel efficiency.
- Investigating and spurring development of alternative fuels considered more environmentally friendly, such as biofuels.
- Driving efforts to improve the global air transportation system, in order to shorten flight times and reduce congestion.

Environmental responsibilities are not only a BCA concern. Integrated Defense Systems is working with defense customers to strike the right balance between mission requirements and environmental considerations. "The priority for meeting the requirements of men and women in the armed services will always be to help them carry out their vital missions and return safely home. But as the military increasingly focuses on energy efficiency and the environment, we are working with them," said Jim Albaugh, IDS president and CEO. "One item of interest that is often overlooked is that much of today's understanding of global environmental challenges to

the planet comes from Earth observation space programs we have supported for the past half-century."

While a portion of the company's improvements are made at a companywide or site level, employees are encouraged to identify how energy efficiency, waste or recycling could be improved at their workplace or through their own actions.

An important tool for sites to improve environmental performance is Boeing's adoption of the worldwide ISO 14001 standard for environmental management systems. Company sites in Exmouth, Australia; Everett, Wash.; and Portland, Ore., already have embraced the standard, which emphasizes knowledge of environmental policies and commitment to continual improvement. ISO 14001 is being rolled out at all Boeing's major manufacturing facilities in 2008, and many employees will see local communication about opportunities to help and responsibilities for knowing how to achieve certification.

Employees will also see improvements from tools they already know, such as Lean+. That's because the best way to beat the improvement targets is to build on the company's existing strengths, said Armstrong. "Everyone at Boeing knows that there's no silver bullet for making production or design improvements. And it's going to be the same with the environmental challenge. Employee talent and knowledge, coupled with the continuous improvement culture we know so well, is what will achieve real results." ■

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By the numbers

Boeing recently unveiled five-year targets for reductions in energy use, greenhouse gas emissions and hazardous waste.

25

Percentage increase in energy efficiency

25

Percentage reduction of hazardous waste per unit produced

25

Percentage reduction in carbon dioxide emissions intensity

100

Percentage of major Boeing manufacturing facilities that will achieve the ISO 14001 environmental standard by the end of 2008.

So you think you know your order book...

For the third straight year, Boeing set a record for most airplane orders received in a year. In 2007, the company registered 1,413 net orders. That figure smashed the previous mark of 1,044 in 2006—which itself topped the then-record-setting total of 1,002 in 2005. Boeing Commercial Airplanes now has a backlog of more than 3,400 airplanes.

In total, 80 different customers ordered Boeing airplanes in 2007, including passenger airlines, cargo carriers, leasing companies, and unidentified customers. But how well do you know your Boeing airline customers? Here's a short quiz about the 2007 orders.



JIM ANDERSON PHOTO

1. What identified customer ordered the most airplanes? (Hint: It's a leasing company)
2. What identified airline ordered the most airplanes?
3. What identified airline ordered the most widebody airplanes?
4. What model received the most net orders?
5. How many 787s were ordered?
6. What single identified airline ordered the most 787s?
7. Excluding orders for Boeing Business Jets and from leasing companies, the identified airlines of what nation ordered the most airplanes?



Need a cheat sheet? Visit the BCA Orders and Deliveries page on the World Wide Web, at <http://active.boeing.com/commercial/orders>, and click on one of the three options in the left column: Recent Annual Orders, Standard Reports or User Defined Reports.

Boeing in 2007 registered a record-setting 1,413 net orders from customers including Lion Air (clockwise from left), British Airways and Qantas.

Answers: 1. Dubai Aerospace Enterprise, 100 2. Lion Air, 62 3. Qatar Airways, 35 (30 787s and five 777s) 4. The 737, with 846 5. 369 6. Qatar Airways 7. China, 109 total

P-8A assembly starts

The Boeing-led P-8A industry team ended 2007 with a bang, starting production of the first Poseidon aircraft Dec. 11 at Spirit AeroSystems' Wichita, Kan., facility.

During a team celebration, U.S. Navy, Spirit and Boeing executives "delivered" the first 737 fuselage components to Spirit mechanics, who installed them in a holding fixture.

Bob Feldmann, Boeing vice president and P-8A program manager, said the milestone highlights the program's transition from design to build. "Our team is now hard at work assembling the first of five System Development and Demonstration aircraft," he said.

The initial P-8A parts and other assemblies eventually will come together on Spirit's existing Next-Generation 737 production line. In the first quarter of 2008, Spirit is scheduled to ship the first P-8A fuselage to Commercial Airplanes in Renton, Wash., for final assembly. "The program will benefit from and continue to build on the proven production efficiencies and performance of more than 5,550 Boeing 737 jets delivered to date," said Mo Yahyavi, vice president and general manager for BCA's P-8A team.

The first test aircraft will be delivered to the Navy and fly in 2009. ■



SPIRIT AEROSYSTEMS PHOTO

Spirit AeroSystems mechanic Brent Maxwell installs the first P-8A Poseidon fuselage components into a holding fixture on the factory floor in Wichita, Kan. The installation marked the start of production of the first P-8A for the U.S. Navy. Spirit will ship the fuselage to Boeing for final assembly later this year.