

2010



Boeing last year continued to improve its environmental performance and workplace safety. Its Environment, Health and Safety leader explains what's in store for the year ahead.

by Jennifer Cram



Boeing recorded numerous achievements last year in the area of environmental performance, both in its products and its operations, and workplace safety. These accomplishments ranged from collaborating on demonstration flights powered in part by sustainable biofuels to being recognized for green building design to launching Safety Now, a companywide effort to create even safer workplaces.

How will Boeing continue this momentum, especially amid today's economic challenges? Mary Armstrong, vice president of Environment, Health and Safety, recently sat down with *Frontiers* to discuss the company's plans for the year ahead.

How has the economic downturn affected Boeing's environmental and safety focus?

The economic headwinds we're facing make us even more focused on meeting our business commitments by improving our environmental and workplace safety performance. We've seen many fantastic examples where impressive cost savings and productivity improvements arise from a reduced environmental

footprint and lower injury risks. Our Lean+ tools are critical enablers to drive eco-efficiency across our enterprise and our supply chain, and create even safer workplaces. These business results benefit our employees, our communities, our customers and our suppliers.

What are you anticipating for 2010?

This is a critical juncture. We have a good foundation, an enduring strategy and effective integration across the company to help sustain our environmental and workplace safety progress. Yet we cannot stand still.

Our government and commercial customers are clearly calling for environmentally progressive solutions. We must pioneer new technologies to help them achieve their goals for environmental performance, and energy efficiency and independence. We'll

PHOTOS: (Left) Mary Armstrong, vice president of Environment, Health and Safety. **BOB FERGUSON/BOEING (Above)** Boeing last year introduced a chrome-free primer and chrome-free exterior decorative paint that can be applied to jetliners such as this 777-300ER for KLM Royal Dutch Airlines. **TIM STAKE/BOEING**

— a critical juncture



PHOTOS: (Above) Tailored Arrivals project leader Rob Mead and Suzanne Meador, engineering leader for Tailored Arrivals operations at Los Angeles International Airport, check out a 747-400 simulator for a demonstration of how the Boeing-developed air traffic management flight procedure saves fuel and lowers emissions. JIM ANDERSON/BOEING
(Right) Steve Wyatt, with the Security & Fire team in El Segundo, Calif., is one of the many Boeing employees who support environmental activities by volunteering in local communities. BOEING



also continue to drive environmental improvements in our operations.

How is Boeing and the aviation industry preparing to operate under carbon constraints?

Aviation accounts for approximately 2 percent of global man-made carbon dioxide emissions. That's projected to grow to 3 percent by 2050, so this is a serious issue for our industry. Boeing has played an important role in helping to bring the aerospace industry together to address climate change concerns. In fact, at the recent United Nations Climate Change Conference in Copenhagen, aviation was the only industry to propose a plan to reduce carbon dioxide emissions. That plan includes fuel efficiency improve-

ments of 1.5 percent per year until 2020, and carbon-neutral growth after 2020.

Boeing is taking action to help protect our ecosystem by reducing emissions from our products and supporting the establishment of a global aviation fuel efficiency standard for new airplane designs. We're advancing alternative energy solutions, such as sustainable biofuels, and developing technologies to help improve the air traffic system. We're also working to lower our own greenhouse gas emissions through the U.S. Environmental Protection Agency's Climate Leaders program. And we're developing innovative solutions to help improve the efficiency of the nation's electric grid, which will also help reduce carbon

dioxide emissions by homeowners and businesses around the United States.

Is Boeing on track to meet its environmental goals?

Thanks to employees across the company who are unleashing their innovation and passion to attack environmental waste, we're making good strides to meet our five-year targets. Those are for 25 percent improvements in greenhouse gas emissions intensity, energy efficiency, recycling rates and hazardous waste at our major sites.

We're embedding design tools that allow engineers to evaluate environmental considerations in our products and services, just as they evaluate cost, weight and mission performance. We've also made great progress in driving environmental



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thought and capability into our supply chain, and are well along in working with our suppliers on contract expectations and collaboration opportunities for environmental gains.

How are we progressing on Safety Now?

Boeing has always had strong safety practices, and we are moving to the next level as we strive for injury-free workplaces. Through Safety Now, we are aligning and focusing our workplace safety efforts in a way we've never done before. And Engineering is engaged in designing workplace safety solutions in our processes and our products.

As we did with the environment, we've set aggressive goals to improve our safety performance across the company. By 2013, we intend to improve safety performance 25 percent, as measured by lost workday case rate. We've set a very visible target. We report our progress regularly and we'll give employees tools to drive continuous safety improvements.

Boeing has remediation projects in some locations. Are we making real progress?

We finalized our cleanup efforts at 12 sites in 2009, which is great progress and allows us to focus our remediation efforts on the more challenging locations. Boeing is working with stakeholders at two of our biggest remediation sites, Santa Susana in California and the Duwamish area in Puget Sound, to remove contamination and move forward on cleanup plans. We've increased our transparency and are working closely with communities on effective solutions. Unfortunately, as was the case recently at Santa Susana, sometimes we have to go to court to protect our legal rights. We reluctantly filed that lawsuit. We remain committed to protecting Santa Susana as open space, and cleanup will continue while the court resolves legal issues.

When discussing remediation in general, it's important to note that many locations we're cleaning up followed generally accepted environmental procedures for their time. But what was acceptable in the past has resulted in large cleanup efforts today. That should spur all of us to find ways to reduce waste, use fewer chemicals and lower our environmental footprint now, so we won't need to clean up new sites in the future. ■

jennifer.k.cram@boeing.com

Highlights of Boeing's environmental and workplace safety performance in 2009

January:

- Together with Boeing and engine companies, Continental Airlines and Japan Airlines conduct demonstration flights powered in part by sustainable biofuels.

February:

- Boeing announces that all of its major manufacturing facilities were certified to the globally recognized ISO 14001 environmental standard in 2008.

March:

- Safety Now, a companywide effort to create even safer workplaces, is launched.
- Boeing transitions to recycled paper in its offices and factories.

May:

- Boeing releases its environment report, announcing the company outperformed its one-year plan for its operational environmental targets.

September:

- The Carbon Disclosure Project, an investor index, recognizes Boeing as the top-performing industrial company in climate change disclosure.

October:

- Boeing is recognized for green building design with LEED Gold certifications in Houston and Kent, Wash.

November:

- An ongoing demonstration of Tailored Arrivals, which reduce fuel use, emissions and noise, begins at Los Angeles International Airport.

December:

- The 787 Dreamliner, designed to increase fuel efficiency and reduce emissions, makes its first flight.

PHOTO: Boeing Shared Services Group employees Mark Pearson (left) and Dennis Ronholt discuss sustainable features of the 18-26 building in Kent, Wash. This building in 2009 earned Gold certification from the Leadership in Energy and Environmental Design, or LEED, program—the U.S. benchmark for green building design.

ALAN MARTS/BOEING