



Inspiring the future

Boeing volunteers and mentors help young people prepare for the high-tech jobs of tomorrow

By Tim Houston and Peter Pedraza
Photos by Ron Bookout

As an engineer with Boeing's Phantom Works organization, Allyn Maslin gets to work on some of the company's coolest, cutting-edge programs.

He also mentors local schoolchildren in building model airplanes.

"This is a great way for these young adults to get practical exposure to the field of engineering and a real sense of what their options are career-wise," Maslin said of the Boeing Engineering Challenge, which was launched three years ago by the Education Relations Human Resources team in St. Louis to further complement existing community outreach efforts.

The experiential learning program connects kids from 10 area high schools with Boeing mentors who spend five months working in teams to build model gliders that compete against one another for awards.

"I love what I do as an engineer and I've always liked helping people learn, so the Boeing Engineering Challenge is a great fit for me," Maslin said.

Many Boeing employees probably can remember a teacher who made a difference in their life, or a moment when an educator taught them something about the world or themselves that opened new possibilities and frontiers. Boeing employees create these moments every day—through their work as volunteer mentors. And these grass-roots efforts play an immeasurable role in preparing young people for the high-tech jobs of tomorrow—and potentially for careers at Boeing.



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— Barb Vogelsang, math department chair at Fort Zumwalt South High School in St. Peters, Mo.



The Boeing Engineering Challenge is but one example. There are others, such as the Washington Aerospace Scholars, a distance-learning program that culminates in a summer residency focused on solving hands-on engineering challenges with mentors at Seattle's Museum of Flight.

While the immediate goal of the Boeing Engineering Challenge is to build a winning glider, along the way students learn to defend design concepts, test prototypes and think critically, applying classroom math and science lessons to situations Boeing engineers deal with daily.

Barb Vogelsang, math department chair at Fort Zumwalt South High School in St. Peters, Mo., has seen how the program can spark student interest in technical careers.

"Kids really enjoy interacting with engineers and seeing the practical side of concepts they've covered in class," Vogelsang said. "Many leave the program with real-world skills, like working in teams and sticking to schedules, along with a clearer interest in technology as a career."

Boeing retirees in the Seattle area also are instilling a sense of wonder and appreciation for science and math among young people. Retired engineers from the Bluebills—one of Boeing's largest retiree organizations—mentor teenagers enrolled in the Washington Aerospace Scholars program.

Bluebill Dick Cihak has spent 17 of the 20 years since he retired from Boeing as a Museum of Flight volunteer. Interacting with students on group tours came naturally to him, so he jumped at the chance four years ago to branch out and share his enthusiasm for engineering with the students in the scholars program.

"I had seen the statistics on the declining interest in science, technology and engineering among school kids and knew we could do better," explained Cihak, who worked on the Apollo program and shares stories of his experiences with the students he mentors.

"I'm pleased to say that many of the students get hooked on the profession once they start into the challenges and see how exciting and creative work in science and technology can be."

In fact, 77 percent of the program's college-bound graduates responding to a recent survey indicated they intend to pur-

sue a degree in a technology-related field.

Such grass-roots, skills-based volunteering is a powerful complement to the company's financial support of education worldwide. In 2010, Boeing invested about \$50 million toward external education programs, with more than \$30 million directed toward science, technology, engineering and math, or STEM, programs to inspire the engineers, scientists and technologists of tomorrow.

These efforts, combined with the continued growth and development of current employees, are helping create a work force that Boeing can draw upon to keep its technological edge and deliver the level of innovation its customers expect.

Or as mentor Maslin put it: "If we can get these kids thinking about engineering and excited about working in technology, we can help supply the technical expertise Boeing needs to stay on top." ■

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PHOTOS: (Far left) Barb Vogelsang, left, a teacher at Fort Zumwalt South High School in St. Peters, Mo., coaches students on getting their glider ready to compete in the Boeing Engineering Challenge. **(Above, from left)** Boeing's Lauren Vaughn takes students through a technical review of their glider designs prior to the competition portion of the Boeing Engineering Challenge; more than 150 students from St. Louis-area high schools took part in the Engineering Challenge this year; Boeing Defense, Space & Security employees Tom Brandt (foreground) and Bill Rodewald helped students they mentored get excited about careers in science, technology, engineering and math.