FIRMLY GROUNDED AND FLYING HIGH

Bob Feldmann ’76 leads Boeing’s newest line of long-haul jets with lessons learned at McCormick
39Firmly Grounded and Flying High

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Watching a plane he helped design as it lifts and climbs into the air the first time—for Bob Feldmann (’76), it doesn’t get any better. The Boeing vice president credits a good measure of that experience to the firm grounding in engineering he received at McCormick. “I’ve witnessed the first flights of five or six different airplanes that I’ve worked on, and they’ve been the highlights of my career,” Feldmann says. “It’s the culmination of amazing design-and-build work. When the airplane finally flies, there’s no feeling of accomplishment that compares.”

It’s a feeling he hopes to experience again as general manager of the 777X program, a new version of Boeing’s 777 twin-engine jet that takes the main high-efficiency composite wing design from the 787 Dreamliner, combines it with a new engine from General Electric, and puts both on the fuselage of the 777. This blend of new and existing technology creates a larger, more fuel-efficient long-haul aircraft.

“We’re lengthening the fuselage so the airplane holds more seats. It will be a ‘flagship airplane’ for elite airline customers worldwide,” Feldmann explains. “The 777 has an outstanding reputation, and we can make it even better; the 777X is 20 percent more efficient.”

When Boeing announced plans for the new airplane at the Dubai Airshow in November 2013, the company immediately received 259 commitments from four customers, positioning it to be the most successful launch of a commercial plane in history. “You’re taking a great airplane, improving it, and applying new technology to the wing, engines, and interior cabin,” he says. “Airlines of the world will make the 777X the backbone of their long-haul fleets.”

Heading up the 777X program requires complex planning and execution that includes developing designs, managing staff across multiple sites, coordinating the supply chain, and building the aircraft. Ensuring everything stays on track to begin production in 2017 and deliver the finished product by 2020 is challenging, but Feldmann keeps his projects running smoothly by applying the most valuable lesson he learned at McCormick: keep it simple. “We worked in teams in the engineering labs, and we did our best work when we broke the problem down into simple elements. That made it easy to coordinate among the different people trying to get things done,” he remembers. “The teams that understand how to work together effectively are the teams that do the best. Those are the airplane programs that do the best, and the companies that do the best. That’s what I learned in college and have tried to apply ever since.”

Feldmann has employed that approach to every project he’s worked on in his more than three decades at Boeing. He began his aerospace career as a software engineer working on the F/A-18 Hornet combat jet with McDonnell Douglas in 1976, prior to the company’s merger with Boeing. He later headed up the surveillance and engagement division of Boeing Military Aircraft and led the development of the U.S. Navy’s EA-18G Growler and P-8A Poseidon aircraft. His work then shifted to the company’s commercial side, where he was general manager of the single-aisle 737 MAX prior to the 777X.

For Feldmann, applying his electrical engineering background to airplanes felt like a natural fit. His time at McCormick coincided with the dawn of the digital age, preparing him for his job at Boeing with knowledge of computer technology and digital electronics. “Just as computers were growing across nearly every application in science and industry, it was happening with airplanes as well,” he remembers. “The amount of software and digital technology going into our airplanes expanded exponentially. The knowledge I had gained put me right in the middle of that growth from the start.”

Feldmann’s progression from working on a component of an airplane to managing the development and delivery of an entire jet has been gratifying for a man who grew up in a family of engineers. He says his natural affinity for math and science was fostered by his teachers in high school, who made classes fun and sparked a desire to follow in the footsteps of his engineer father, brothers, and sisters. Choosing where to study was easy. “For me, it was the reputation of Northwestern,” he says. “I knew it was an outstanding academic institution. Then I visited and saw the beautiful campus on the lake, so it was really easy to choose.”

It’s a choice he values each day as he manages the 777X project across the diverse teams involved. “We have to make sure we’re all marching to the same schedule and ensure things interface correctly and flawlessly,” he says. “Our job as leaders is to make a complex task simple so that people can stay unified in their execution to design, build, and deliver an airplane.”

When the 777X takes its first flight, you can bet Bob Feldmann will be there. SARA LANGEN