

PHOTO: Members of the Rotorcraft Engineering Enterprise Support team include, from left, Bukola Olagbaju, David Yi and Chris Massa.

FRED TROILO/BOEING; GRAPHICS: DOUG YAMADA/BOEING

Moveable feats

Rotorcraft engineering team shares its expertise across the company By Jeff Barnett

It began as a simple idea: Create a team of Boeing engineers who could be sent anywhere in the company as needed.

Thus was born the Rotorcraft Engineering Enterprise Support team. It was formed in 2004 when Mike Warburton, a mechanical structures engineer with Rotorcraft Systems, had a strategic vision: Place a handful of Philadelphia engineers on site in Everett, Wash., to support the 787 program.

The goal was to leverage what the engineers learned working on Boeing commercial aircraft and apply their knowledge and experience at Rotorcraft Systems and across the company.

From that handful of talent, the team has grown to more than 160 engineers in Philadelphia and 80 engineers in Mesa, Ariz. And as the team has grown, so has its list of projects and accomplishments. Team members have tackled some of the company's most critical engineering and

technical issues on programs ranging from Boeing's NewGen Tanker to the 747-8 and 787 jetliners.

"We can develop methods for one project and apply them to other projects," said Chris Mazza, a structural analyst with the team. "We're using work done on a new 787 part to help design structures on other aircraft."

This transfer of knowledge is a key benefit of the program. Work performed on commercial aircraft, for example, can be applied to military aircraft. Technology and methods used to design structures on the 787 can be used to design parts on the CH-47, V-22 and AH-64.

Take the 787 vertical fin supports. These structures experience complex forces during flight.

"We design, analyze and test these parts to understand how they'll react under stress," said Bukola Olagbaju, a structural analyst with the team. She

and her teammates use advance modeling technology to simulate the kinds of stress these parts are likely to undergo and verify the part will function as planned for the life of the aircraft.

Paul Handel, a senior manager with Rotorcraft Engineering Enterprise Support, said the team is setting benchmarks and championing the "One Boeing" approach.

"A mobile team of engineers can apply specific know-how and skills to problems across all of Boeing, from commercial airplanes to rotorcraft, piggybacking experience from each project to tackle the most difficult technical challenges," Handel said.

He noted the CATIA (Computer Aided Three-dimensional Interactive Application) software that is widely used by engineers on design and development programs such as the 787.

"Putting the CATIA software we used on commercial aircraft to use on rotorcraft

and other projects is just a small part of the knowledge we can apply enterprise-wide," Handel said.

Mike Moran, a stress analyst with the team who is currently supporting the 787 program, said the "learning opportunity is just immense.

"There are few other places I could get this kind of exposure to different projects and aircraft," Moran said.

During a recent visit to the Philadelphia Rotorcraft Systems site, Dennis Muilenburg, president and CEO of Boeing Defense, Space & Security, met with team members.

"Providing this kind of engineering support across the enterprise offers a seamless application of expertise and technical know-how," Muilenburg told them. "It's a great way to make the most of our technical capabilities." ■

jeff.d.barnett@boeing.com

