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Depot liaison engineers support
aircraft maintenance units AOR wide
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Engineering Solutions



EILERTSEN

U.S. AIR FORCE

NEWCAMP

U.S. AIR FORCE

Growing up in Arizona was practically like having a desert as a backyard. That 'backyard' served as the perfect place for mountain biking — a passion of 14 year-old Mark Eilertsen.

For an avid biker, an ideal choice for a career would be doing something with mountain bikes. So Eilertsen did his research, and a quick telephone call later, his plans were set.

"When I was 14 I called a local bike company and asked what degree I needed in college to design mountain bikes," he said. "They told me mechanical engineering. I said 'OK, that's what I'm doing.'"

Thirteen years later his career plans almost panned out as he originally intended. He's got the degree in mechanical engineering, still loves mountain biking but isn't designing them. Rather, he earned his commission and is using his skills for designing structural repairs to nearly every aircraft in the Air Force inventory flying in Southwest Asia in support of the global war on terror.

The expertise 2nd Lt. Eilertsen, 1st Lt. Jeffrey Newcamp and 1st Lt. Jake Delapasse, who arrived Wednesday, bring as a part of to the 379th Expeditionary Maintenance Operations Squadron make them a hot commodity in the desert because they're the only assigned depot liaison engineers in the entire AOR.

"We have people calling us 24/7," Lieutenant Eilertsen said. "The maintenance back shops, the flightline — they never stop working. They call us whenever an issue

comes up, whether you're on shift or not."

Having the title of depot liaison engineer here means you're authorized to work on any and every aircraft that's operating in the AOR.

"Structure is structure," said Lt. Newcamp. "It doesn't matter what aircraft it is. We are a group who knows how aircraft are put together, how they break and how to fix them."

A typical day may involve fielding a call from a downrange maintenance unit that has an F-16 with a crack in the wing, or being out on the flightline troubleshooting a C-130's heating system, or reading one technical order after another researching acceptable design tolerances for a repair on a B1 Bomber.

Being able to quickly research a problem and design a repair that the Aircraft Structural Maintenance Shop can craft greatly minimizes an aircraft's downtime. Because when it's on the ground, it's not fulfilling a mission.

"The job is so important because it helps to put aircraft back into the fight much quicker, without sacrificing the quality of the maintenance," said Maj. Rene Leon, 379th EMOS commander.

Major Leon said the role of depot liaison engineers will continue taking on an even greater importance as many Air Force airframes get older. He said the age, combined with the increased hours they are flying, can produce skin and fatigue problems that are more out of the ordinary.

"Our engineers compliment the expertise of our maintainers and are an integral part of achieving our goal to provide safe, reliable and effective aircraft and munitions," Major Leon said.

Lieutenant Newcamp recently worked a problem that Major Leon described involving an F-15 with a 1.5-inch crack in a wing. The technical order recommended replacing the cracked area's skin, but the skin wasn't readily available. After researching the problem and determining the crack was in a low-stress intensity area, Lieutenant Newcamp suggested a procedure that didn't involve replacing the skin, but yet made the fighter airworthy again.

"As the depot liaison engineer we can go a little bit above and beyond the T.O.," Lieutenant Newcamp said. "In many cases we can take the sheet metal guys' job one step further."

A key to keeping aircraft up in the air is having a good working relationship with those sheet metal guys. Senior Master Sgt. Cisco Johnstone, fabrication flight chief, 379th Expeditionary Maintenance Squadron, said he and his team have gotten to know Lieutenants Eilertsen and Newcamp quite well in the past few months.

"They're over here up to four times a week," he said. "One night we called them seven times working an issue. We didn't let them have much sleep that night. Anytime we need them they're just a phone call away."

Sergeant Johnstone said having engineers here is extremely helpful in making the correct repairs to get aircraft flying sooner rather than later. Back at his home unit in England the process typically involves taking photos of the damage, e-mailing those photos to engineers at Robins Air Force Base and discussing solutions over the phone.

Here Sergeant Johnstone and the lieutenants can take a look at a problem together and devise a solution more quickly.

"It's so much easier having them here," he said. "The flow of communication between them and the guys here in the shop is better."

But it's just not about supporting aircraft here. The depot liaison engineers service the entire AOR. During the summer the engineers launched an awareness campaign to other maintenance units in the region that depot engineering services are available to them.

Prior to getting the word out more than 95 percent of all engineering work was done on aircraft stationed here. Now about 40 percent of their work is from aircraft stationed elsewhere throughout the AOR.

"Since our engineers provide 24/7 coverage, the maintenance units around the AOR don't have to wait until normal home station hours or work around holidays to get an initial review of their problem," Major Leon said.

Servicing the entire AOR and often working around the clock to help get aircraft back into the fight sooner is pressure that drives Lieutenant Eilertsen each and every day. "I thrive on the fast pace," he said. "Mountain bikes would be cool to design, but I get to work with jets everyday — and that's pretty cool too."



photo by Senior Airman Ricky Best

Staff Sgt. Shawn Krahn, 379th Expeditionary Maintenance Squadron aircraft structural maintenance craftsman, and 1st Lt. Jeffery Newcamp, depot liaison engineer, discuss one-time flight options for a damaged B-1 flap.