

L-3 puts focus on people

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One of the Cincinnati area's oldest defense suppliers has successfully transformed and positioned itself for success thanks to a renewed focus attracting and retaining talent, and improving communications with employees.

L-3 Communications Corp.'s Fuzing and Ordnance Systems (FOS) unit in Union Township is on a roll. Earlier this year it won a multi-year, \$59 million Pentagon contract that could exceed \$340 million through 2016.

The contract is the result of the military's need to restock its arsenal from the Iraq and Afghanistan wars, and involves L-3 supplying M734A1 and M783 Army mortar fuzes.

Those mortar fuzes are FOS's largest single product, and represent about \$1 billion in government contracts over the last decade.

The success has come during a time when FOS has transformed its products and operations in order to more successfully compete. New federal budget realities out of Washington mean defense suppliers such L-3, which comprises more than 100 different businesses including Cincinnati Electronics and Nova Engineering in Mason, are being pushed to deliver technology at lower costs in less time.

But as FOS shifted its research to meet these new demands, it also refocused on the people it needed to make this transition happen - its employees. The cultural change has led to a financial turnaround. As recently as five years ago, FOS was losing money and employees to better paying jobs.

"The problem was there was a philosophy that we can reduce our cost by reducing our labor expenses," said Eric Ellis, president of L-3's FOS. "We were losing people to dry cleaners and McDonald's. It sent a clear message that our pay and benefits weren't competitive in the market."

FOS is the nation's largest, and one of the most advanced, developers and manufacturers of fuzes and safe arming devices. Its annual sales of about \$175 million represent around 17 percent of the \$1 billion world-wide fuze market.

The business, which employs 600, has been part of L-3 Communications, the nation's sixth largest defense contractor, for a decade. But the business, once known as KDI Precision Products, has been making devices to safely arm and detonate the nation's artillery shells and bombs for more than 50 years. It traces its roots back to Cincinnati's Gruen Watch Co. and other time-piece makers that began making timing fuzes for the U.S. military in World War I.

"What we make determines life and death on the battlefield," said Ellis. "Soldiers carry mortar rounds in their packs. Something fails in the fuze and he dies. On the other hand, if it fails when it's supposed to go off, it can mean a pilot has to fly in for a second run on a target, one of the most dangerous things he can do."

The business of making bombs and shells that go off when they're supposed to has changed dramatically from the era when fuzes were little more than heavy duty watches. Today's electronic fuzes rely on solid-state technology to know when to ignite a weapon. Instead of detonating shells designed to take out tanks or waves of advancing troops, the nature of today's asymmetric warfare requires more precision—taking out individual targets deep inside buildings without harming those nearby.

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But cutting-edge technology isn't the only demand from the government. It also wants the products quicker, and cheaper, Ellis says.

"They don't want it five years from now. They want it tomorrow," said Ellis.

Like many old-line manufacturers, FOS has had to transform itself to compete. For a time, the company tried to cut its way to success, and began relying on temporary workers, which hurt product quality.

To turn things around, L-3 brought in Tom Walsh, an experienced executive in lean manufacturing from Washington, D.C.-based conglomerate Danaher Corp., as general manager of the KDI fuze business in May 2006. He was named president of KDI and a sister business in 2008 and the combined Fuze and Ordnance Systems unit a year later.

"His big message was, 'Start telling yourself the truth. We've got a problem. Let's recognize it. Let's not live in a fantasy world,'" said Ellis, a San Francisco native who was recruited by Walsh from Danaher as vice president of engineering in 2007.

Ellis, who is 39, oversaw the company's continuous improvement efforts which allow floor employees to run their operations and focuses on eliminating all forms of waste.

In addition to exiting some money-losing businesses, FOS underwent a cultural shift to engage employees.

The company began opening communication between manufacturing employees and senior managers. Along the way most of the senior managers were replaced by employees under them.

"We changed the way we communicated," said Ellis, who was named president last August when Walsh left to head L-3's Interstate Electronics Corp. unit in Anaheim, Calif.

"Once you allow the organization to communicate freely, you free up those information paths."

The company also increased base manufacturing pay an average of 47 percent and changed the bonus system from one based on longevity with the company to one tied to the company's performance.

FOS doesn't disclose its pay rates, but Cyril Puthoff, human resources director, notes the company was raising pay in the midst of the deepest economic downturn since the Great Depression when other companies were cutting jobs and pay.

As a result of the changes, FOS's employee turnover rate, which was 60 percent in 2006, has fallen to less than 3 percent currently. Puthoff said the company hasn't lost anyone to better paying jobs, and total employment has risen about 40 percent to 600 today, from about 430 in 2006.

Besides investing in people, L-3 also invested more than \$11 million in the company's 236,000 square-foot plant on about 100 acres on McCann Road, just north of Ohio 125, and tripled its research and development spending.

Today, FOS is profitable and growing its business an average of 11 percent a year, Ellis said.

While the United States is winding down its role in Iraq and Afghanistan, the world remains a dangerous place, said Ellis.

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Although nearly all its business is with the U.S. government and prime contractors, FOS has expanded internationally with some U.S. allies. International sales are about 5-10 percent of the business today and growing, compared to nothing five years ago.

“We compete against companies with much lower cost structures, but they don’t have the technical and research capabilities we have,” Ellis said.

The company employs 150 engineers and is one of the longest running participants in the University of Cincinnati’s cooperative education program, which allows about two dozen UC engineering students to split time between the classroom and on-the-job training. The company is in the midst of establishing its first co-op program for a UC student pursuing a doctorate degree.

“One of the challenges we have is there no program in fuze technology. The vast majority of our engineers are electrical engineers, but we need some special skill sets for the technology we want to develop,” Ellis said.

The business, then known as KDI , introduced electronic safe and arming technology to the Army 20 years ago. It was a paradigm shift that has paved the way for the company’s entry into today’s targeted weapons systems and expansion into next-generation missile defense systems.

Said Ellis, “As long as somebody needs kinetic energy on a target, you’re going to need safe and arming devices to control that energy while it’s stored, whether it’s a rocket motor or a warhead. That’s fundamentally what we do.”

Mike Boyer