In October of 2008, Laser Techniques Company was recognized by the Puget Sound Business Journal as one of the 100 fastest growing companies in Washington State. In fact, we were in the top 50! In 2008 we continued our growth, achieving 60% annualized revenue growth over the past four years.

I would like to thank our vendors for their outstanding support, our staff for their creative efforts and hard work, and our clients for believing in us. We look forward to continuing our mission of providing outstanding value for our clients through excellence in innovation.

James L. Doyle, Jr.
President and CEO
Laser Techniques spurred by demand for precision

By PETER LEWIS, CONTRIBUTING WRITER

Jim Doyle was a newly minted engineer 25 years ago when he stumbled onto an idea that others had given up on.

"I literally walked into the lab (at his former workplace) one afternoon and saw a cardboard box with some components," he recounted. "I asked about them, and was told they were parts of a project to build a laser probe that never really worked."

"I thought if I could make it work, it would be very cool," he said. His boss told him to leave it alone. Doyle acquiesced, but kept "mucking around" on his own time, and later obtained a government research grant.

"It went from there," recalled Doyle. In 2001, he founded Laser Techniques Co., which develops sensors and systems using laser-based technology to produce high resolution, three-dimensional models to test critical components. He now counts NASA, Boeing, the Department of Defense and nuclear power plants among the company's customers.

They all rely on LTC for quality control in the manufacture of critical parts. And once those parts are in service, the customers turn to LTC to assess their condition by searching for flaws such as erosion, cracking and pitting.

"Whether the part is military, aerospace or nuclear," Doyle said, "we scan them with a robotic laser, like an X-ray or CAT scan." The privately held company custom-builds sensors ranging from microscopic-sized units for NASA parts to 5-inch-diameter scopes for large cannons on Abrams tanks.

Redmond-based LTC's services are clearly in demand; revenues grew from $670,000 in 2005 to $1.81 million last year, a growth rate of more than 171 percent.

While Doyle admits he has no crystal ball, he is bullish on his company's prospects.

"Frankly, we're growing," he said. "We're so busy we can hardly breathe."

Between 2005 and last year the number of employees doubled to 12 and now stands at 13. What's been holding the company back, Doyle said, is personnel.

Even though he's advertised nationally, Doyle said he's had trouble finding talented, qualified professional staff. The problem could ease, Doyle noted wryly, if other firms dump personnel because of the economy.

Mike Brinkman, LTC's chief technology officer, said the company has developed a number of custom sensors for NASA. For example, he said, the firm developed a scanner to inspect gas generators for the space shuttle.

"These units are valued at over $1 million and are therefore reused with each flight, even ones that fall into the ocean after lift off" and become severely pitted, Brinkman said.

"Previously, they (NASA) were
Army, Boeing among clients

LASER | From 10A

inspecting the thousands of pits on these by eye, which took several days apiece and was subject to operator error. With our system, they can do the inspection in about an hour and have a detailed map of the part for comparison with future measurements."

It's a similar story at the U.S. Army's Yuma Proving Ground, in Yuma, Ariz., where David Le, a civil service mechanical engineer, said the government has been working with LTC for several years. He said he's pleased with its products and services.

He said LTC has developed hardware and software that do a better job of inspecting gun barrels to determine wear patterns and erosion than what the Army had previously used. Using LTC's custom-built, high-precision laser sensor, about the diameter of a pencil, the Army can now map the entire bore of a 45-inch-long machine gun within 15 minutes, Le said.

He said the system produces "solid, 3D data as well as a cross-sectional profile inside the gun barrel showing any erosion, wear or damage." Previously, the Army was forced to rely on less sophisticated, mechanical measuring devices that took half a day and produced only two data points, he said.

"We have a great working relationship with LTC," Le said.

Doyle estimates that 80 percent of LTC's work is with the government. He said the company also has commercial customers, including overseas clients in Japan, Korea and Sweden.

Boeing Co. is a customer, too. Doyle said LTC worked with Boeing when the aerospace giant was redesigning a "seat track" to reduce the weight on the new 787s. Doyle said the track runs the length of the fuselage. The seats are bolted to it and it also serves as part of the plane's backbone.

Boeing used a unique manufacturing method to make the track, which is made of titanium. It asked LTC to provide inspection technology as part of its quality control process, Doyle said.

Even though the overall economy is suffering, things are looking up for LTC. Doyle pointed to a recent decision by NASA to extend the life of the space shuttle program by several years, which means LTC expects to continue providing its services through United Space Alliance (USA), which is NASA's prime contractor.

"The hardware and techniques designed and provided by Laser Techniques will be used into the future to support the continued inspection of vital flight hardware components," said Keith Richard, a solid-rocket-booster manager at USA. "USA is actively pursuing additional applications for services that Laser Techniques provides."

In addition, Doyle is confident that as the nation looks to move away from fossil fuels, the nuclear industry is poised for substantial growth over the next decade. "Whether liberal people want it or not," Doyle said, "they will be building soon. It's a market sector we serve."