

Supporting the Body Armor Supply Chain

by Ms. Michelle Brignac, Public Affairs Student Intern, DCMA Aeronautical Systems and Naval Sea Systems Divisions

Mr. Vern Clifford is a quality assurance specialist (QAS) for Defense Contract Management Agency (DCMA) Wichita, Kan. He has been a part of DCMA for 22 years after having spent many years in the Air Force and Air National Guard. He is responsible for overseeing 43 small business contractors in Wichita and the surrounding area, spending most of his days at the contractors' facilities. Mr. Clifford describes his job as, essentially, "[going] to the contractor's plant to inspect and accept the products they manufacture for [the Department of Defense]." His inspections involve a wide variety of products, with body armor being the most important product he inspects.



The company also provides armor panels for military vehicle protection. So far, LTC has sent approximately 216,000 pieces of armor to troops serving in Iraq and Afghanistan.

In addition to performing quality control duties, Mr. Clifford monitors the ballistic testing of the personal body armor. The testing takes place at the U.S. Test Lab of Wichita, and the tests include shooting bullets into the body armor to check whether the armor will stop the bullets and prevent them from penetrating the body. Mr. Todd Lair, president of LTC, explains, "We do most of the testing; however, we also use HP White Lab in Street, Md. There are two tests that are performed, and the lot size and the test

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The body armor, manufactured by Leading Technology Composites (LTC) of Wichita, is intended to protect warfighters on the battlefield. LTC provides thousands of small arms protective inserts (SAPIs) that are used to protect a person's chest, back and underarms. The actual design of the body armor consists of two hard armor plates, front and back, that can be used alone or with small, six-inch by eight-inch armor plates that fit under a person's arms for additional protection. The plates consist of a ceramic core that is encased in carbon fiber with a custom-molded backing.

(Above) DCMA Wichita Quality Assurance Representative Mr. Vern Clifford in the work area of the Leading Technology Composites body armor plant in Wichita, Kan. (Photos by Ms. Ann Jensis-Dale, DCMA Aeronautical and Naval Sea Systems Divisions)

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group size are dependent upon Army or Marines requirements. For example, if the Marines need 1,200 SAPIs, we take five and send them to a lab for ballistics testing. It is a three-shot test using two different types and sizes of ammunition to duplicate enemy rifle fire.”

The body armor material is approximately 0.85 inches thick, and its weight varies from four to seven pounds, depending upon the size of the plate. There are five body armor sizes: extra small, small, medium, large and extra large. “The U.S. Army and Marines go above the industry standards and norms to get the best protection for our soldiers,” noted Mr. Clifford.

Mr. Allen Heck, a DCMA industrial specialist and Mr. Clifford’s coworker for the last few years, explained what it is like to have such important responsibilities as part of his duties. “Working with people like Vern and Todd and contractors like LTC makes my job a lot easier. We’ve never had a problem with LTC’s on-time delivery, and that’s remarkable, especially when you’re dealing with a lot of variables such as changes in design and user requirements — they are just great folks to work with.”

Both Mr. Heck and Mr. Clifford feel that one of the biggest challenges in the past few years has been keeping pace with the changing business environment of DCMA. The Agency has undergone and continues



to go through a number of significant changes, including organizational changes, the consolidation of contract management offices, documentation files going electronic and changes in software and operational instructions. As Mr. Clifford stated, “I find myself wishing for some stability in the day-to-day operations within our Agency. However, the best way to work through these challenges is [to have] a positive attitude and apply patience and flexibility.”

For Mr. Clifford, the most rewarding part of the job as a QAS is the direct access he has to many contractors’ manufacturing facilities: “This is where I get to be involved in the development of new products [and] processes, and I get to witness the development of new high-tech products,” he remarked. “Being involved in the supply chain, from design, engineering, manufacturing and delivery of quality products to our warfighters [gives me] a sense of accomplishment and a sense of value [that] we provide to our warfighters.”

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(Above) Mr. Clifford (right) with an employee of Leading Technology Composites at the company’s body armor plant in Wichita, Kan.
(Left) Mr. Clifford in the work area of Leading Technology Composites.

