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Stauder Technologies builds support systems for Marine Corps

■ The equipment is used to give detailed information on enemy targets during an air strike.

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Imagine a piece of technology that can locate an enemy target during the day or night and transmit that information in such detail to give ground and air armed forces the ability to know exactly where to strike.

StrikeLink is such a technology. And it was created by a small company in St. Peters.

StrikeLink is a system that has the ability to quickly acquire targets in the day, at night and in nearly all weather conditions. It can determine operator location as well as the location of the targets and then digitally transmit secure data to multiple supporting arms elements.

The product was written for the Marine Corps by Stauder Technologies of St. Peters.

"A lot of work has come to fruition this past June," said Paul Davey, director of business development at Stauder. "We received a positive fielding decision from Marine Corps System Command to get the system out to the Marine Corps' 'forward air controllers' and 'forward observers.'"

The targeting acquisition system involves both hardware and software. With its "hand-off capability," target data is digitally transmitted to both aircraft and ground artillery in support of the Marine Corps FAC and FO missions.

"Close air support' is a key mission right now," Davey said. "When troops on the ground come into contact with a target, they can call in air strikes, projecting the right weaponry forward, so the aircraft can deliver the air strikes to the target."

StrikeLink supports digital CAS missions with AV-8Bs, F-16s and F/A-18s, digital artillery missions with Advanced Field Artillery Tactical Data Systems and naval gun-fire missions with Naval Fire Control Systems.

War fighters on the ground must first determine their exact location and combine that with data on what and where the enemy target is located. All of that information is then digitally relayed to the supporting platform like an attack aircraft for a CAS mission. The StrikeLink system helps the war fighter accomplish all of this digitally by combining a rugged computer, a global positioning system, a laser range finder

and tactical radio.

Traditionally, the CAS and artillery missions are supported by voice communications on the battlefield.

"It is difficult to maintain good voice communication for an extended period of time," Davey said. "The more you rely on voice communication to provide targeting and mission information, the more opportunity for error."

Using voice communications for a CAS mission, information had to be recorded by the pilot onto a keyboard by hand and then punched into the onboard computer in order to prosecute a target.

"There are multiple opportunities for transmission communication breakdowns," he said. "The operator and the pilot have to repeat back and forth to assure accuracy of information, all while engaging in battle."

With the combined arms targeting capability provided by StrikeLink, they have the opportunity to transmit all that data digitally in a matter of seconds, from computer to computer.

"They get all the data in one single data burst that goes right to the aircraft's computer," he said. "The pilot immediately looks at the data and decides whether or not he can support the mission. It provides increased accuracy by cutting down on the opportunity for human error."

The Marine Corps' mission includes fighting the battle on the ground as well as from the air.

"A lot of coordination has to occur. It's a push to have everyone think in those perspectives," he said. "It's significant that we do both, and having that capability has brought success to what we've done."

Davey said the company has no local competitors, but companies like The Boeing Co. are working on larger projects like the U.S. Army Future Combat System that will involve a vast array of technologies. One approach for Stauder Technologies is to find ways to help programs like that bring this technology to the battlefield.



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Joe Hoosech, retired master sergeant of the U.S. Marine Corps and director of testing at Stauder Technologies in St. Peters, works on the StrikeLink computer, which is used to communicate target locations to fighter pilots during an air strike.

Stauder Technologies was incorporated in 1997 by Jerry and Angie Stauder. Jerry Stauder formerly worked at Boeing and as a consultant for Edward Jones. He began working digital close air support systems when he wrote and demonstrated the Advanced Close Air Support System for the AV-8Bs to the Marine Corps. That effort was later picked up by the Marine Corps Warfighting Lab to refine the tool and bring it to the next generation. The system was then transitioned to a program of record with Marine Corps System Command in 2004 for future testing.

Stauder Technologies began preparing for production release. The system went through two more years of refinement and rigorous testing before it succeeded field testing and was accepted by the Marine Corps.

"It had to work consistently and accurately to execute missions effectively and efficiently, while minimizing fratricide [killing of friendly targets], which is one of the primary benefits to using StrikeLink," he said.

The company is currently in negotiation with the Marine Corps to solidify a contract to continue developing and enhancing the system and its capabilities.

The company now has 26 employees at its 6,000-square-foot facility at 115 Mexico Court in St. Peters. Being a small company, it is a good fit for the Marine Corps as it can be flexible and adapt quickly to requests, whereas in a larger organization this can be a more challenging approach, Davey said. That methodology is fitting with the Marine Corps motto -- improvise, adapt and overcome.

