By Dave Tobin  
Staff writer

SETARS are a problem in warfare. Cheap, lightweight and deadly, they can be fired and then easily moved before defenders can strike back.

For decades, the Army tried to see flying mortars using truck-sized radars. Big and unwieldy, they could “see” in only one direction. They missed a lot.

The Army wanted something smaller and better, and sent out a request. The country’s big defense companies weren’t interested. Too far-fetched.

So the Army asked smaller defense research companies. Only one tried — Syracuse Research Corp.

In a matter of three years, engineers there came up with a lightweight radar that was named an Army top-10 invention of the year.

Nearly the same time, company engineers devised an electronic jammer that doubles radio-controlled roadside bombs. The two inventions have saved countless lives in Iraq and Afghanistan, and their sales have transformed the company.

The confidence of the company’s knowledge and global television turned what for decades was a little-known, wonkish, nonprofit organization into a defense contractor that is possibly Central New York’s fastest-growing business.

Since 2001, employment at the company, which now goes by SRC Inc., has soared from 425 to 1,050. During that period, sales exceeded $2.3 billion — most from these two devices.

In 2011 when manufacturers are leaving New York and the United States, SRC spun off a for-profit business to run a new manufacturing plant.

Every day in a Cazenovia step mill, next to offices for Best Buy and the state Department of Motor Vehicles, workers build some of the most advanced military equipment in the world.

IED FIGHTER, TOO

SRC’s beginnings in the late 1950s, defense research and invention were the company’s chief purpose. SRC invented a new radar every year in the 1960s, specializing in radar that saw incoming artillery. It didn’t manufacture them. Its radar prototypes were the defense industry’s version of a Detroit concept car — futuristic designs that would one day change the way people did things.

By the late 1990s, SRC was looking to expand into manufacturing. Along came the Sept. 11, 2001, attacks and the U.S. response. And SRC’s intellectual pipeline just happened to have the

SYRACUSE COMPANY’S INVENTORS MEET THE ARMY’S CHALLENGE TO CUSTOMIZE ANTI-MORTAR RADAR

“For we’re a war-on-terror factory. Tom Wilson (left), SRC vice president and chief strategy officer; Wilson and Mark Condorello, director of radar programs, stand next to their small, portable radar device, known as the Lightweight Counter Mortar Radar, inside a radar-testing chamber where every surface is covered with energy-absorbing foam spikes.

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**S.R.C.'s InGenuity Drives Growth in Jobs, Sales**

**Micheal Trachsl**

**U.S. Army Pvt. 1st Class Alysha Gibson (left) and Sgt. Chad Ervin, both members of Counter Bottle, Artillery and Mortar Team, show from Echo Battery, 4th Battalion, 5th Air Defense Artillery Brigade, conducted maintenance on a radar station at Forward Operating Base Delta, in southeastern Iraq, last summer.**

**By Scott McNulty, August 6, 2001.**

S.R.C. has built a new headquarters—a two-story, 12,000-square-foot energy-efficient structure with big, triple pane windows, a Cisco business park. Carbon dioxide sensors trigger fans to ward off smoke. LCD monitors in the reception area post job listings. "Collaboration spaces" around the building are arranged like sections of a hotel lobby, with couches and easy chairs. Dry is business casual. "They're very, very bright."
Morat's had been a constant problem. In one town, there was a guy riding around in a pickup truck shooting at us. We never knew from which way it would come. It (SRC's) radar made a difference. We wanted more of these.

— Retired U.S. Army Col. Lee Flake, of Marlboro, on SRC's radars in Iraq

Allred said, “You want to be well versed when you go there. Everybody was well versed in the same things.” When people droopped, it was techni- cians who worked through the technical issues until they were resolved. Technicians.

— Receptions check that visitors are real, and that the sign does not prohibit cameras and tape recorders.

— They had been bought out just three years ago. Bob Roberts, SRC’s president and CEO, expects the company will outgrow its current headquarters.

They push the technology

The LCMR’s design evolved.

— Paratroopers can’t help. The radars are air-dropped in 260-pound packages.

While developing the radar, Bruce and Williamson assembled software and algorithmic research. When Allred designed the software, he wanted to develop it quickly and it was a practical use.

— There were no tight deadlines. Parts, which were cheap, small and light. Still, the prototype, with an aluminum housing, wasn’t light enough for paratroopers. Allred suggested they use carbon fiber, which he could fabricate himself. Carbon fiber is relatively new material.

— Twice as strong as steel, half the weight of aluminum, for half the price.

There was no other way. And the council was armies.

The U.S. had invaded Afghanistan.

— Mosals were killing soldiers. Rangers wanted 24 small radars — fast.

They were ready to give SRC a $25 million con- tract, and they wanted the order placed on the table immediately.

— They finally approved the contract. Booth Thornton, an ex-Marine electrical engineer, was in charge of the entire electronics company that made power ampli- fiers. They never met, but Bruce had read an article about Thornton. He told Bruce that Thornton was a paratrooper and Thornton sketched a design on a napkin and Afghanistan had a building.

So engineers pitched the Army another idea. In Crete, SRC had a technical spe- cialist to test radar. Why didn’t the Army build its own? It is a relatively simple machine. Thornton then told Bruce that the lightweight radar. The Army estimates it only weighs 2.5 pounds.

The NEXT challenges

For years SRC had worked to make the radar distinct birds from artillery shells, or soldiers wouldn’t return fire at seagulls.

In January 2009, opportunity was

— when a flock of geese collided with a passenger jet over New York City, and the pilot landed in the Hudson River.

It wouldn’t be a far-far- ing figures to program their radar to detect the bird and the radar B-STAR. It is still being tested.

— The radar version of the LCMR to monitor; altimeter, small aircraft for border patrols, and to market a spinoff to unmanned drones to prevent real-air col- lisions. Risk of collisions with manned aircraft has limited the use of unmanned drones in the U.S.

SRC projects the lightweight radar will take four years to develop in the work.

— It adapts its 360-degree artillery-detecting technology to larger units with longer range and greater accuracy.

It is working with Lockheed Martin in radar technology the EQ-36, at a cost of roughly $12.6 mil- lion each. The U.S. plans to order more than 100 EQ-36s valued at more than $1.6 billion.

It is rapidly expanding its cyber-secu- rity research capabilities. And it’s sell- ing another first-of-its-kind radar that generates foliage, called the Forester.

SRC’s financial success has surprised even its president. When Bob Roberts joined the company in 1991, the company was $3.1 million in debt. He bought that in 15 years sales could reach $50 million. Instead, by 2006 sales were $220 million.

— Measured by sales alone, SRC ranks as a major player in the defense industry. The Lockhead and Boeing will do more than local billion.

SRC is the home-research company, has begun playing with the basic volume, expanded to $260 million. The company recently increased its research and development coordination with the growing number.

It is admission as a state of science. SRC is a research company with long-term prospects. The company is expanding.

SRC is affiliated with the Portland Community College, tied to a $1 million scholarship fund the company created. SRC awarded another $50,000 to Proctor & Gamble’s “To You To Stay” program.

— When the revenue this season a tennis court is 40 feet long. Wells are covered with energy-absorbing foam splices. The Wells are still in SRC’s lightweight radar. The Army estimates it only weighs 2.5 pounds.

Despite the successes, SRC can stay true to its mission. SRC also has a company dinner in November. SRC honored six of its employees for their contributions to the field. Alfred’s carbon fiber is twice as strong as steel and half the weight of aluminum.

J.E. Allred holds a magnifying glass to show the detail of the carbon fibers. SRC’s carbon fiber products in his Forester Lab (SRC’s anti-missile radar). SRC’s anti-missile radars to carry in planes and assembly. SRC’s anti-missile radars to carry in planes and assembly.

Santa Monica, CA 90406.

— 2008, SRC started expanding.

SRC’s research and development will be faster.

— By July 2008, SRC had the contracts to carry in planes and assembly. Alfred Allred as a co-founder and vice president.

At Least 200 New Hires, Including: SRC, founded 1957 at Syracus University.

— Among SRC’s 325 employees.

— Funding for SRC reflects its growth.

— Aerospace Research. SRC began research and development in 1957 at Syracuse University.

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