

Fort Sill recovers high-tech instrument

STORY, PHOTOS

By KEVIN YOUNG

The latest in high tech hit Fort Sill two weeks ago.

Literally.

An instrument package suspended from a small parachute set down on the artillery impact area east of Interstate 44. It landed in an area where it couldn't be retrieved due to the threat of unexploded artillery rounds.

To recover the instrument package, a nine-person group of Soldiers and civilians from the Ordnance Training Detachment and Range Control took a 500-meter hike to its location. They quickly found it, in part due to the bright orange parachute that fluttered in the wind, recovered it and returned it to Don Haley.

"Space Data Corp. sends these instrument packages up on a balloon," said Haley, a recovery specialist for the company. "After so long, the balloon expires and then it's on a parachute ...

"I don't know what the instruments are doing. It could be weather, traffic, pipeline work or all of it. Then, when it stops, whatever destination it falls on, it sends back the GPS

coordinates to another one of these that are still up there. That radios it back to the originating base. It says, 'This is where I'm at. Come and get me!'"

Haley, a physicist who worked on technologies like NASA's Apollo space program and stealth technology for the Air Force before retirement, retrieves these packages from throughout Oklahoma for Space Data Corp. The company, based in Arizona, pioneered the commercial use of hydrogen-filled balloons to carry high-tech instruments into the upper limits of earth's atmosphere for various uses.

Jerry Quenneville, vice president for business development for the company, said the instruments can provide better support than satellite-based systems. The package that landed at Fort Sill was for commercial use, but recent company expansion includes a \$50 million contract with the Air Force to provide "close communications" and development of special packages for the Air Assault Expeditionary Force at Fort Benning, Ga. Quenneville said the Army's interested in the high-flying balloons because they can expand the

range of standard military FM radios to up to 400 miles.

Another appealing thing for the Army is the low-tech launch and recovery of the system, Quenneville said. The balloons use the same technology as weather balloons — fill it with gas and let it go.

The company's balloon launchers fall in two main categories, Quenneville said, small airport staff members or farmers. He said those two groups make great balloon launchers, "because they're always there." A mother-daughter duo of farmers in Piedmont, Okla., launched the package that hit Fort Sill.

"It's a full working farm with one barn for Skysite operations," Quenneville said. "Once a day, they go out there, fill the balloon, check that it's working right and walk it out of the barn and let it go," Quenneville said. He added that the balloons rise to their working altitude in 90 minutes and stay aloft up to 24 hours before the balloons burst.

Almost all the balloons released in Oklahoma, Texas and Louisiana are used to help oil and gas producers track production in isolated sites, Quenneville said. The company

has launched 15,000 of these flights since 2004.

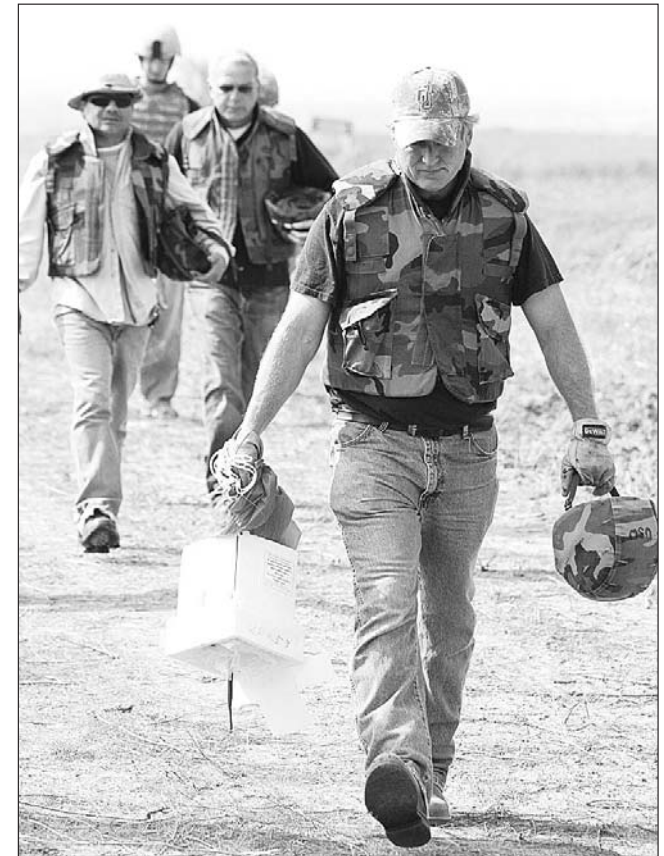
Most flights end up in a farmer's field, but Haley said they've fallen all over the state.

Some land at people's houses. Imagine going in the backyard to grill dinner and finding a white Styrofoam box and orange parachute hanging off a tree.

One landed in a river and drifted downstream from its landing spot. Haley said he was lucky because a couple of farmers saw him walking along the bank and asked him what he was doing. He told them and they joined him in the search out of curiosity. They found the package a hundred yards downstream, Haley said.

Haley said he's even chopped down trees to recover the instruments. Once, he tried to shoot one down with a shotgun because the tree might take out a fence if it fell the wrong direction. He said he got so frustrated at the shot's inability to cut the parachute cords that he finally pumped a round into the instrument box itself to knock it out.

"It's still up there, holes and all," Haley admitted.



Duane Gannaway, Range Control, carries out the instrument package that fell onto the East Range in early April.