

9 miles and 7,100 crossties later

Nine miles and 7,100 crossties later; AEDC's stretch of track from the switch in Tullahoma will be refurbished and fully functional - again.

According to Mark Thomas, AEDC Air Force project manager, a \$350,000 rehabilitation effort began in July which will allow the center to use rail freight as a viable means of transportation for large test items.

The first test item to be shipped by rail is scheduled to arrive at AEDC early this fall. Currently, the rail is being used less than 10 times a year.

"There are no immediate plans to have more than 10 shipments a year after the restoration," Thomas said. "However, the large test articles coming in by rail have no other means of transportation to AEDC. We're also opening up the potential, which has always been here, for more rail use on more projects."

Thomas said using the railroad for other projects could be more cost-effective than other land transportation which could save up to \$40,000 on shipment costs for some projects.

Funding for the railroad restoration project is coming from the same fund that applies to the upkeep of buildings and roads, he added. The cost and quality of materials was scrutinized for this project.

ACS Project Manager JonPaul Wallace, said, "We're using industrial grade ties to be more cost effective. We can do more work using these ties and still use quality materials."

Thomas added that using the industrial grade ties cost approximately \$10 less than regular ties saving the project \$60,000.

"The life of our ties isn't gauged by how much wear they get, but by how quickly they rot," Thomas said. "What extends the life of our ties will be getting them the right treatment with creosote before they are placed."

All industrial ties being used on the project have received treatment according to Norfolk and Southern Railroad standards. Standards that Thomas believes to be some of the best in the industry.

"If a tie is treated better, it will last longer," he said.

Other work going into the rehabilitation effort includes installing about 60 switchties and repairing two crossings, one at the Handicapped Hunting area and one at the Industrial Boulevard area.

According to Wallace, 5,000 tons of new ballast, or rock, will be placed in the bed of the rail. Thomas added that the ballast stabilizes the track and keeps it from going side to side. It also spreads and evenly distributes the load.

"If a load is really heavy, it can push the rails into the dirt, but the ballast helps distribute the weight pretty evenly," Thomas said.

The center's track interchanges with CSX Railroad west of Highway 55 in Tullahoma. Caney-Fork and Western provides switching services to AEDC.



John Elliott standing assists Les Lewis in pulling plates off old ties as Lewis operates the tie inserter. (Photo by Gary Barton)

The track and right of way belong to AEDC from the switch.

Although AEDC owns some freight cars, the shipment of goods will be contracted out because AEDC no longer owns

an engine, Thomas added.

"The project has been running pretty smooth," Wallace said. "We have a good contract and contractor who is progressing really smoothly."

New equipment, family operated

AEDC's railroad track received state-of-the-art treatment from a state-of-the-art machine and a future-focused company.

Volunteer Trackworks, LLC, of Knoxville, the center's contractor for railroad refurbishment, used their new spiker for the first time at AEDC.

Project Supervisor Terah Lewis operates the new \$300,000 machine.

"We've had it about a month," she said. "We have the newest model out on the market. Nothing compares to this machine. It really makes the job go faster."

According to Lewis, the spiker spikes top plates to the track, and it gauges rails that must be 56.5 inches apart.

The equipment must be accurate, or trains run the risk of derailment.

"You have to be careful when using the spiker because the spikes shoot out, and if you don't hit your hole exactly, you could be in trouble," Lewis added.

Accuracy and hard work is what this company is all about. According to Volunteer Trackworks president and owner Tom Deaton, the company is still in its toddler stage,

but doing very well.

"We have four crews working four jobs simultaneously and three sub-contractors giving us seven projects at one time," he said. "I do everything from labor work to executive stuff, while my wife does all the book work."

Deaton said he is in the process of buying property and building an office so he can move his business from his home.

Deaton brings almost three decades of experience to AEDC's project. His other contracts include high-speed rail work as well as other refurbishment jobs and new track deals.

"The railroad has been through a lot of changes and it tickles me that people think railroads are becoming obsolete," he said. "The passenger lines may be, but nothing can match freight on the rails. It has probably increased 2,000 percent. My projects are about 75 percent new track and 25 percent refurbishment, like here at AEDC."

AEDC is in good hands with Deaton's crew. They are the recipients of the National Railroad Contractors Association 1998 Safety Award.



Volunteer Trackworks owner Tom Deaton, right, and son Shawn Deaton, survey work performed with the company's new spiker. (Photo by Mark Thomas)

Railroad rehabilitation vital to AEDC mission

By: Dana Davis, AEDC Public Affairs

Love on the tracks

Their love is like a runaway train - sort of.

Les and Terah Lewis are husband and wife and supervisors on the AEDC track restoration project for Volunteer Trackworks, LLC, of Knoxville.

Adding another twist to the family railroad business, Terah is the niece of company owner Tom Deaton, making her crewmember Shawn Deaton also her first cousin.

According to Terah, Les just didn't know what he was getting into when he married her nine years ago. A certified welder, Terah laughs as she says that Les is now a certified "railroad man."

Terah, one of the growing numbers of women of the railroad, grew up with a passion for the rails.

"My grandfather retired from the railroad, my uncle owns the company I work for, and I've always been fascinated with the railroad," she said. "I guess you could say it runs in the family."

She said it doesn't bother her to be outnumbered on the railroad.

"I like it because there's so many men who dislike it, although it's not as bad as when I started," she jokes. "There aren't too many

women who do this, but that's something I'm trying to break."

Les said the couple has seen a lot of country in the past nine years.

"We've been to the very tip of Michigan up in the Upper Peninsula, down to Miami, and everything in between," he said.

Another family crewmember is Jesse Logan, the Lewis's faithful two-year-old Lhasa Apso, who is not just any ordinary dog.

"He's our baby," Terah claims.

According to Les, Jesse has been on the road with them since he was five weeks old.

"He's usually rides with me on the rails," Terah said. "But, I've been working on the spiker and it's too loud for him so he's been staying with Les lately."

As for their professional relationship, they get the job done.

"It's been pretty good, both of us working together," he said. "We have our days, but what wife and husband team doesn't."

"Actually, we get along very well, having to put up with one another 24-hours a day," she said.



Tara Lewis, left, and cousin, Shawn Deaton, right, work together to operate the track-mounted spiker. (Photo by Gary Barton)

Railroad, Eggert's sunflowers go together

Rare, delicate flowers and massive, steel railways can co-exist if they're on AEDC property.

The repair of railroad trackage between Tullahoma and AEDC brought up issues other than materials and contracts.

It brought up an environmental issue of saving Eggert's Sunflower, a federally threatened species listed by the U.S. Fish and Wildlife Service under authority granted by the Endangered Species Act.

According to Geoff Call, AEDC Conservation, AEDC is responsible for protecting Eggert's sunflower and its habitat because the species is federally listed.

The sunflower occurs in many habitat types throughout Arnold AFB including pine stands, roadsides and barrens (grasslands and open woods with a grassy understory).

"The railroad right of way is a long barrens corridor that has been maintained by mowing, and more recently prescribed burning, typically on an annual schedule," he said.

"Eggert's sunflower and many other rare wildflowers are found in the railroad barrens including the pale purple coneflower, low frostweed and a carnivorous plant called dwarf sundew."

The AEDC conservation team, AEDC project planners and the U.S. Fish and Wildlife Service worked together to minimize negative impacts to Eggert's Sunflower and the other rare plants, which could have resulted from the railroad repair project.

"We first surveyed the entire right of way

from the base to Tullahoma to locate and flag all occurrences of Eggert's Sunflower in the railroad barrens," he said. "We located 33 patches in the right of way, many of which were located on the woods' edge and therefore unlikely to be damaged during the project."

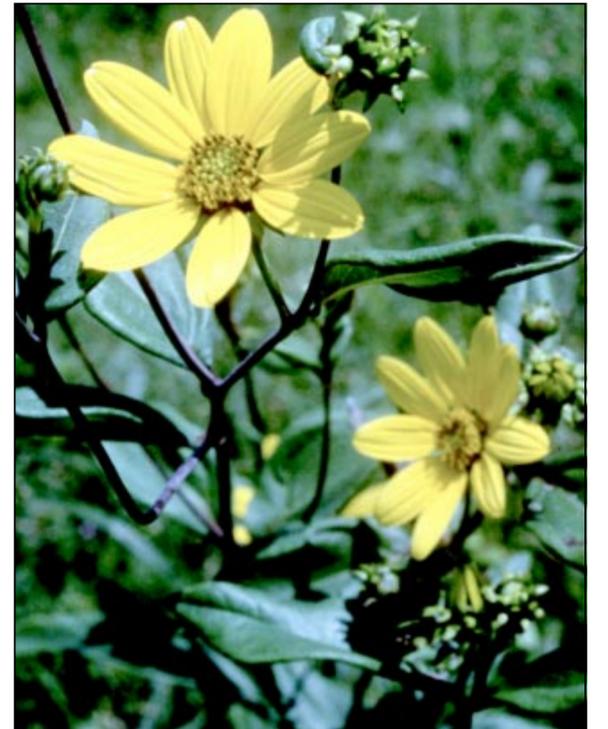
Also identified were a number of equipment and materials staging points that could be used without harming the plants.

"After documenting the locations, we worked with the project planners to ensure that all bidding contractors were aware of the plants' presence and status," Call said. "The project planners stipulated that all work would be done from the top of the track using track-mounted equipment in order to minimize vehicular traffic in this important barrens habitat."

Project leaders and conservation team members outlined their efforts. This outline was coordinated with the fish and wildlife service, who agreed that the project impacts would be minimal due to efforts in locating the plants and outlining job specifications to contractors.

"They asked that ACS conservation monitor the project to make sure that implementation proceeded according to plan," he said. "We currently are monitoring the project and the contractor is working in accordance with all instructions regarding Eggert's sunflower protection."

According to ACS Project Manager JonPaul Wallace, "We've done a good job with everybody working together to minimize impacts to the sunflowers."



Eggert's sunflower in bloom.