

Radar shows 16 bodies in 1700s burial plot

By **Bill Fortier**

Telegram & Gazette Staff

AUBURN— Now they know for sure.

About 15 people spent a sunny day last week at the Clark Burial Ground on Prospect Street, watching two men from a New Hampshire company use ground-penetrating radar to see exactly how many bodies are buried in what the Auburn and Oxford historical and cemetery commissions believe is a family burial ground from the 1700s.

While the ground-penetrating radar is a technology that was developed by the military during World War II, the use of that method to look at nonmilitary objects is a recent advancement, said Daniel Welch. A training manager-archaeologist for Geophysical Survey Systems Inc. of Salem, N.H., Mr. Welch spent about four hours at the burial ground last week with GSS application specialist Kenneth Corcoran looking eight feet into the ground.

Mr. Welch, whose company markets the equipment, said he has tested the GPR about 12 times at cemeteries in parts of the country since the late 1990s. The recent effort at the Clark Burial Ground was the result of a teaming up of Historical Commission Vice Chairman Kenneth R. Ethier and Robert W. Perry, owner of topo**Graphix** of Hudson, N.H.

The two met at a recent meeting of the Friends of Hillside Cemetery, when Mr. Perry gave an update on the mapping of that burial ground on Central Street. Mr. Perry, who purchased one of the \$25,000 radar machines from the Salem, N.H., company, also discussed the ground penetrating radar he was adding to his repertoire of equipment.

Mr. Ethier and Mr. Perry talked about the Clark Burial Ground, which is on the Oxford line, and the decision was made to use the GPR, free of charge, to peer underground. Ordinarily, it costs about \$2,000 a day. Mr. Perry said the only other time he has used the GPR in a similar way was at a cemetery in Arkansas. He said that to the best of his knowledge the nearest company that has used the radar to look underground at cemeteries was located in Florida. "This is brand spanking new," he said.

Mr. Ethier, who has spent about two years clearing brush from the cemetery, could not contain his excitement last week as Mr. Welch and Mr. Corcoran slowly and painstakingly used the radar equipment on carefully gridded sections of the approximately 50-by-60-foot burial ground. "They're using 2004 technology on a 1750 burial ground," Mr. Ethier said.

The local officials believe the cemetery is the final resting place for members of the Clark and Cudworth families who lived in the area hundreds of years ago.

Among the watchers was Robert Klisiewicz of Webster, who plans to write an article about the GPR search for the quarterly publication of the Association of Gravestone Studies, based in Greenfield. "This is the first time I've ever seen something like this," he said as he stood in a corner of the burial ground. "That's why I find this so interesting. I'm very anxious to see what they find."

As Mr. Welch followed side-by-side with a computer screen illustrating the transmission through the orange, lawn mower-sized radar equipment, he said it looked like there might be more bodies buried than expected. "There's definitely something there," he said. Mr. Welch said the chemical composition of the soil and the fact that, for the most part, the burial ground had been untouched for about 250 years made for uncommonly good radar images. "New England tends to bring the best results with GPR," he said in a telephone interview Wednesday.

It took five days for the data to be read and developed, but the images show the remnants of 16 bodies in the burial ground, which was what cemeteries were called before 1840, Mr. Ethier said. In his work at the burial ground, Mr. Ethier said, he found what he thought were 14 gravestones, but several of those stones turned out not to be grave markers. That was one surprise. Another was the images showing 16 people had been buried. A third surprise was finding five bodies under two markers that were 18 inches apart. Mr. Ethier also found it interesting that the bodies appeared to be buried in straight lines and with some thought in mind, something that wasn't usually done in cemeteries until about 1870.

Mr. Perry, who is going to be using the radar equipment as another tool for cemetery mapping, said he was also surprised about the results of the underground search. "I was very, very surprised by what we found. You really don't know how many graves are down there, and it turned out there were a lot more burials there than what we expected."

Mr. Welch said both last week and in the Wednesday interview that he enjoyed spending the day at the Clark Burial Ground. "I absolutely enjoyed it," he said. "It's pretty rare to work in a cemetery that goes back to 1750."

Mr. Ethier said he will continue to work on the burial ground and the markers, including the one for Abigail Cudworth, who died in Dudley and was buried in the Auburn cemetery in 1879.

The Clark Burial Ground is going to be maintained by the Cemetery Commission.

"I'm very excited about what has been found," Mr. Ethier said. "We've been working there for years and we never really knew to the extent that we know what was there."