

RESEARCH TECHNICIANS, PART II

The first part of a special feature about technicians at Carnegie appeared in the November 1991 issue of Spectra. The following represents the last installment.

David George electronics technician

When David George moved to the new earth sciences building in May 1990, he and Chris Hadidiacos, the Geophysical Laboratory's resident engineer, sat down and kicked ideas around about what might possibly go wrong. They realized that if the water supply was interrupted for any reason, then many of the water-cooled instruments, especially the high-pressure apparatus, would be in trouble. And so, on their own initiative, they fabricated water-sensing relay boxes that could shut off an instrument when the water flow was low.

Born in Texas and raised in West Virginia, George studied electronics in the armed services. He liked the work so much that he later obtained a two-year degree in electronics-engineering technology, then joined Carnegie's Geophysical Laboratory. There, he quickly became an expert in the use and maintenance of the

electron microprobe, an instrument which measures a sample's elemental composition. As a result of his knowledge, George later taught a graduate-level course on electron microprobe analysis at the Johns Hopkins University.

George, the Laboratory's only full-fledged research technician, calls himself a "troubleshooter" for electronics. If he, as the first line of defense, can't fix something that's gone wrong, he says, then outside help is called in. He has also been working on a computer automation package for individual work stations at the Laboratory. Computers and their uses have so intrigued him lately that he is in the process now of obtaining a degree in computer-related studies at the University of Maryland. While he says the degree will help him in his job, the real reason he is going to school is personal: to finish, finally, the undergraduate degree he never got. It has been a gradual process, with stretches of time off. He took no courses in 1985, for example, after his marriage to Suzanne Harle.

At Carnegie, George likes having different directions available. "I can be working on a mass spectrometer one day, the next day on a laser system, and the next on a PC. It's so low-keyed. You don't have to make 27 widgets a day." There was a time, however, when he felt out of place. "I had a heck of a time on my 30th birthday," he says. "I found myself 30 years old having a job at an institution with lots of Ph.D.'s and pre- and post-docs, and here I had a two-year degree in electronics. I started thinking, 'this is terrible.'" The scientists he worked with helped pull him out of his funk, making him realize that without him they would have a difficult time doing research.

Today, George is fully at home.



Frank Perez

"Everyone seems to be doing what they want to do here," he says. "And not just the scientists.... It's an ideal position."

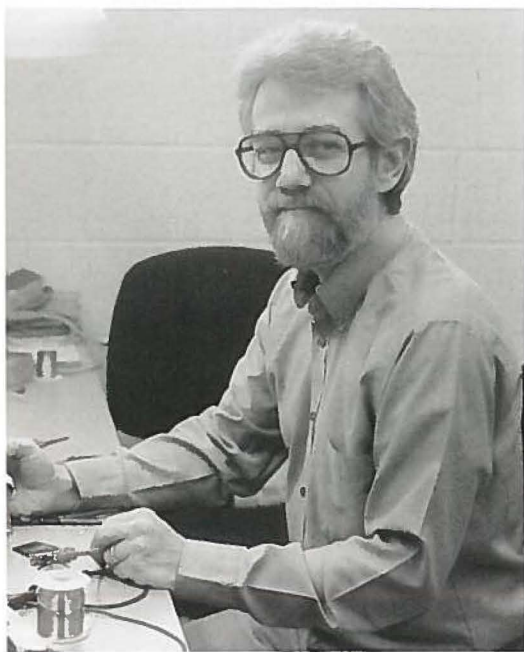
Frank Perez Las Campanas engineer

Frank Perez is much more than a technician. As Las Campanas engineer, his list of responsibilities includes the supervision of the Santa Barbara Street machine shop, the management of telescope operations at Las Campanas, the design and assembly of telescope modifications and CCD cameras, the development and maintenance of the office computer systems at Santa Barbara Street, and service on the Las Campanas Operations Council.

Though he has been associated with astronomy for most of his career, Perez never wanted to be an astronomer. He has always been more interested in the inner workings of telescopes. He has co-authored papers on telescope design for the proposed Magellan telescope, for example, and he has collaborated with various scientists regarding the technical aspects of telescope operations.

He enjoys the diversity of his work, and appreciates the chance to further his education by taking courses and attending classes. But he also expresses some reservations

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Dave George