

# STB News

October 2003

## Hildebrand Returns to STB-UC after Three Years in Washington, D.C.

You might have nodded to him in the hall or noticed that he was back in his office with the University of California Coordination Team.

Ed Hildebrand has come home to Science and Technology Base Programs (STB) after a three-year change-of-station in Washington, D.C., that turned out to involve more drama in his everyday life than anyone could have expected.

- Hildebrand was a senior policy analyst in the Office of Science and Technology Policy, Executive Office of the President, in Washington on September 11, 2001—the day of the terrorist attacks in New York, Pennsylvania, and the nation’s capital.
- He was in Washington when the Space Shuttle Columbia crashed.
- And he closed out his assignment shortly after weathering “Tropical Storm Isabel.”

### An Interesting Career

Hildebrand, who has a bachelor’s degree in physics from Gettysburg College and earned M.S. and Ph.D. degrees in biophysics from Pennsylvania State University, has held positions at Los Alamos National Laboratory (LANL, the Laboratory) that fill half a page.

He has been with the Laboratory since 1971, when he was a postdoctoral appointee.

In the last 10 years alone, he has served the Laboratory as: scientific advisor, Genomics and Structural Biology Group, Life Sciences Division; acting program director for Biological and Environmental Research; group leader, Bioscience and Biotechnology Group, Chemical Science and Technology Division; acting group leader, Bioscience Division; and bioscience coordinator, STB.

He has also served as an adjunct professor of pathology in the University of New Mexico School of Medicine.



Ed Hildebrand of STB-UC

“I came here (to the Laboratory) because I had a background in radiation biology,” Hildebrand said in a recent interview. The Laboratory had a strong group in his field. It was a time, Hildebrand recalls, when “molecular biology was developing very fast. Sequencing DNA was only a dream when I came here.”

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## Haase, Smith Took Different Paths to Computer Support

Computers and computer support really didn’t exist as a field in the 1950s, and in the 1960s, they were in their infancy. But they have come on fast since that time, and now they present a world of constant change. Just how and where did the Science and Technology Base Programs (STB) computer-support people learn their field?

Together, Peter Haase and Scott Smith have a huge amount of experience—but they arrived at their knowledge of computers by different paths.

In a recent interview, Haase said, “I started in this business in the Army in 1967.” He was in communications then. He was a radio teletype team chief in Vietnam, where he made sergeant.

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## **HILDEBRAND (Cont'd from p.1)**

Over the years, he was involved in many scientifically exciting developments including the gene library program at the Laboratory. Biologists at LANL were constantly challenged, he recalls, to change to meet the needs of society and the Laboratory's parent agencies.

He was in the Health Division in 1983, for example, when he went on a change-of-station to the National Institutes of Health to learn more about genetic mapping. When he returned, he helped the Laboratory initiate its human-genome mapping program.

In his second change of station, from 1993 to 1995, he served as a science attaché at the United States embassy in London. He remembers the experience as both interesting and educational. He experienced his "first wake-up call for terrorism" because of Irish Republican Army bombings—notably one just a few blocks away from the office where he worked. "It's a dangerous world," he commented.

He came home, devoted more years to science, and served as a group leader.

Five years later, he was working in STB when he was asked whether he might be interested in a Washington position. There was Laboratory support for a change of station, and the coordination between STB and Threat Reduction was good. He said yes and went for an interview.

His wife, Judy, had played a pivotal role in making his multiple moves possible, and once again, she agreed to go.

### **Work in Washington**

When the Washington job became a reality, the timing was perfect for both of them: Their home in Los Alamos had burned during the Cerro Grande Fire, and their son Josh (now a second lieutenant in the Marine Corps) was attending George Washington University.

At the time, Bill Clinton was in the White House, and Neal Lane—who has served on the Theoretical Division Review Committee—was the President's science advisor. Hildebrand's job, as part of a large team, was to help with interagency coordination of preparation for and response to terrorist weapons of mass destruction. His work was done in support of the President and his goals and the science advisor and his priorities.

"It was really a great experience in public service," Hildebrand said.

"I was asked to come because I did have a background in biology," and there was a concern about biological terrorism," Hildebrand said, but this concern didn't get much attention—until the anthrax mailings, when it suddenly took on greater importance.

In the meantime, George W. Bush had become President, and he had nominated John H. Marburger III, a physicist who had been director of Brookhaven National Laboratory, as head of the Office of Science and Technology Policy and science advisor.

Marburger's confirmation was delayed—until 9/11, when it came quickly in the wake of the terrorist attacks.

Hildebrand admired Marburger. He found him to be a strong leader, "very sensitive to engaging the community" and very politically aware.

Vice President Richard Cheney had initiated a taskforce to combat terrorism. Much work had already been done, and more was undertaken. Marburger made the war on terrorism his first priority, Hildebrand said, and stressed the need to be able to "communicate what we were doing" and how it served the public. Hildebrand recalled that Marburger said "he had as much access to the President as was necessary to do the job," and, Hildebrand added, it was often necessary because of 9/11 and the Columbia disaster.

### **Sept. 11, 2001**

On Sept. 11, 2001, Hildebrand said, "I was at work in the Old Executive Office Building," preparing an interagency report involving science and technology for combating terrorism, when a colleague ran in and said, "We're under attack."

Hildebrand was watching on television when he saw the second plane hit the World Trade Center. "We knew the world had really changed" at that moment, he said. "Other countries had been going through it, but now it had been brought home."

Within minutes, the Secret Service came in and ordered everyone out of the building.

"It was about the time the Pentagon was hit that we were being evacuated," Hildebrand said. He had actually been at the Pentagon for a meeting the day before.

Hildebrand called his wife. She had gone on a bicycle ride on a pathway in Alexandria, Virginia, and knew nothing about what had happened until she went inside. "She was concerned about where I was and where Josh was," Hildebrand said. "I was in Josh's dorm room. He was in class."

One of those who called from New Mexico that day to make sure the Hildebrands were all right was STB Program Leader Allen Hartford.

### **Columbia, Isabel, and a Look Back**

The Hildebrands were still in Washington when the Shuttle Columbia crashed.

"We were right in the midst of setting up for Homeland Security," Hildebrand recalled. Asked if he suspected terrorism, Hildebrand said no. People knew, he said, that re-entry and landing created "a particularly vulnerable time." Hildebrand shared office space with a scientist who was an aerospace expert. "No assumptions were made about causes," he said.

The challenge for him—as for all others in Washington—was to maintain focus on their true responsibilities despite such disasters, he said.

The Hildebrands had been in Washington "three years, almost to the day," and he was preparing to "do my formal checkout" when Tropical Storm Isabel blew into town. "The government closed down for two days," Hildebrand said.

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## HILDEBRAND (Cont'd from p.2)

Subsequently, he had to go check out while his wife handled the movers alone.

Hildebrand feels that he went to Washington “at an interesting time,” and he is returning at a time when it is clear that LANL and the other national laboratories can play a major role in Homeland Security. He said he believes it will be important to balance national security needs and scientific openness, and to make sure that the investments in Homeland Security have benefits in other areas as well. He sees this as a time when a new Laboratory Director is “focusing the missions,” and starting to develop a “corporate business plan.” Hildebrand is pleased to be home again and part of an organization that still has scientific vitality and ties to universities.

The future, he said, presents “tremendous opportunities.”

## COMPUTERS (Cont'd from p.1)



Scott Smith, left, and Peter Haase, right, of Computer Support

He started using computers while he was still in the Army, and he can recall working with computer punch cards in a big warehouse.

After the Army, Haase got a job with AT&T in Los Angeles, where he worked until 1981. He started as a lineman, moved up to installation work, became a repairman, and worked on special data circuits.

In 1981, he took a job with MICOM Systems, which handled “port selectors.”

“That’s how I got to the Lab,” he said. In those days, “The Lab had 20,000 ports” that connected terminals to computer systems.

In 1984, he was still with MICOM, but the Laboratory needed someone on site, and he became the MICOM representative maintaining Laboratory equipment.

“In the latter part of ’85, I came on board with E Division (the Electronics Division) to work on the Yucca Mountain Project,” he said. A reorganization later created MEE Division (Mechanical/Electrical Engineering Division), and he worked there too.

He got into networks and progressed to computer support, taking courses suggested by the Laboratory. “I basically started on the ground floor as the systems were invented,” he said.

Another reorganization produced the Materials Science and Technology Division (MST), where he was network systems manager for three years. It was there that he met Smith, hiring him as a student.

Subsequently, Haase worked in the Safeguards Science and Technology Group (NIS-5) on nonproliferation programs, data acquisition systems, and network support.

He moved to STB in the spring of 2001. STB’s computer systems were “a mess,” he recalled. “It was a real challenge—and that’s why I took it. We’ve pretty much got that straightened out. The job has evolved.”

Smith, meanwhile, had taken a different route to the same destination. “When I started school (at New Mexico Highlands University) back in 1991,” he said with a grin, “I started in chemistry.” But by his sophomore year (at the University of New Mexico-Los Alamos), he had become interested in computers. He was working at the Wellness Center at the Laboratory while he was studying at the university.

He kept pursuing his degree while he moved on to the Metallurgy Group (MST-6) in 1995. It was there that he met Haase and “learned from him.” By 1997, he was doing computer support full-time.

He finished his degree in 2001 at the University of Phoenix. At this point, computers had become his world. “I did more of the on-the-job-training approach,” he said—and it worked.

He joined Haase in STB in June 2001.

Asked about the commonest problems they face day-to-day in STB, Smith said that often, his work involves “people forgetting how certain things work. If they don’t use it every day,” they forget it, he said. Another task that keeps him busy is the installation of new software.

Haase spoke of keeping systems current, dealing with security, and blocking viruses. He said, “We believe in being proactive. We work on things when you guys don’t even know it to avoid potential problems.”

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## COMPUTERS (Cont'd from p. 3)

Asked to describe one of the most puzzling computer situations they have ever faced, they both spoke of a time when the Network Engineering Group (CCN-5) “upgraded all our network switches (ports in offices),” a task that affected all of the Macintoshes in the division.

“We couldn’t figure out why, after they did this, the Macs could not see anything on the network,” Haase recalled. None of the machines could “talk” to their printers or servers.

CCN-5 came out with test equipment, but no one could figure out what had happened.

“After about three days,” Haase said, “I was here one night very late” and happened to read a “very old knowledge-based article on the Apple website” and found the answer. “The problem was not even supposed to affect the systems we were using and was escalated to Apple as a reappearing bug,” he said.

Smith said, “We weren’t sure it would work until we actually tried it,” but it solved the problem immediately.

Basically, what the problem required was technological detective work.

“That’s the way a lot of our days are,” Haase said. “You run into the unknown” and use all available resources—including personal knowledge and research via the Internet—to solve the problem.

Just how do they keep up with a field that is changing so rapidly?

Haase said they read a lot. They also take courses. The last week in October, for example, he planned to attend a MacOSX conference in Santa Clara,

California. “We try to go (to training courses) at least once a year,” he said.

Smith said he feels that, “Really, the best way is to get onto the publication websites. I’ve been using the Microsoft ones heavily lately.”

Haase also spoke of “talking to peers,” especially at conferences where the people speak his language. He said he finds that some basic principles from earlier days “still apply,” and sometimes, younger computer support people lack the ground-floor knowledge that he has.

They are proud of their work at STB. Haase said 30% of the mail to STB is now filtered out as spam and rerouted to a special mailbox for individual checking. He also checks all mail for viruses.

Power failures don’t pose the serious problems they once caused because every computer in STB now has an uninterruptible power supply. (But users should still shut down if a failure lasts longer than two or three minutes.) No longer does a power failure mean that Haase and/or Smith will be at STB all night.

“We take pride in our work,” Haase said. “We like to make sure everything is running smoothly and people are not frustrated with their systems. We’re here to support you—the users.”

Smith said, “I enjoy coming to work.”

But Haase added that if they’re grouchy sometimes, people have to realize that once in a while, computer support people encounter a situation in which all the systems are affected at once—when the primary line to the Internet goes down, for example.

That’s just the nature of the computer world.

## STB’s Employees Have Two New Babies



The lovely little girl at left is Natalia Maez, daughter of Caroline Trujillo in Foreign Travel. She was born at 1:28 a.m. on July 18. She weighed 6 pounds, 6 ounces, and she was 17.5 inches long. Her mom said, “She’s already got an attitude.”



The little doll at right is Scott’s tot—the daughter of Scott Smith in Computer Support, that is. Her name is Monica RoyAnne Smith. She was born at 1:10 p.m. on Aug. 1. She weighed 6 pounds, 9 ounces, and she was 18.25 inches long. Scott said, “She flirts with the men. Guys come up, and she immediately starts to smile.”