

TOM WALSH: Call for help takes an area firm to Asia

Ann Arbor business to ID tsunami victims

March 1, 2005

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FREE PRESS COLUMNIST

Howard Cash never set out to become the world's foremost authority on cataloging and cross-checking DNA samples to identify human remains from unthinkable disasters.

But sometimes stuff just happens that sweeps ordinary people up in extraordinary events.

Stuff that demands an immediate answer to a scary question: Am I willing to risk my life's work, my career, my company and the well-being of my employees to stop what we're doing and answer a call to service?

Cash, founder and president of Gene Codes Corp. in Ann Arbor, answered "yes" to that call when New York City sought help identifying victims from the Sept. 11, 2001, attacks on the World Trade Center.

And now, as New York concludes its victim ID project after 3 1/2 years, the government of Thailand has asked Gene Codes to use its special software to help ID more than 5,000 tsunami victims from about 30 countries.

Cash founded Gene Codes in 1988 to make a computer program that helped scientists identify and map all human genes. By September 2001, he had a nice laid-back business, with 16 employees, that had been profitable for 39 consecutive quarters.

Today, Cash, 45, has a staff of 35 and a subsidiary, Gene Codes Forensics, created specifically to work on identifying bodies by matching DNA samples. He plans to hire a half-dozen more for the tsunami project -- programmers, software testers and perhaps a biologist.

But there were times during the intense, emotionally draining trade center project when Cash wondered whether Gene Codes would survive.

He was working people 12 to 14 hours a day, 6 or 7 days a week, to deliver weekly upgrades of the software called M-FISys (pronounced emphasis), for Mass Fatality Identification System.

He had pulled nearly all his people off of Sequencher, the company's bread-and-butter product, to work on the World Trade Center project. A new version of Sequencher that was due in late 2001 wasn't delivered until early 2004.

New York City, meanwhile, was slow to pay its bills, putting pressure on Gene Codes' finances. "The amounts were not in dispute. It was just a matter of getting payments through the bureaucracy," said Cash. He ordered Gene Codes to stop work at one point when \$3 million was past due. Nearly all of the bills from the trade center project have been paid, he added.

Last week, the New York Medical Examiner's Office concluded its victim ID effort after identifying nearly 1,588 of the 2,749 victims, despite the fact that most of the bodies were too badly damaged to be linked to dental or fingerprint records. More than half the IDs were made using Gene Codes software to match DNA from Ground Zero remains to DNA from relatives or victims' personal effects, such as toothbrushes and razors.

If Cash ever thought Gene Codes would revert to its laid-back existence as the New York project wound down, the thought evaporated Dec. 26 when the tsunami killed 160,000 people in 12 nations bordering the Indian Ocean.

Soon after the tsunami hit, Cash was in England for a brief visit when he received a phone call.

Could he come to Thailand? Right away?

He arranged to get some shots and a plane ticket and spent three weeks on the ground there. By mid-February, on the recommendation of a scientific advisory board appointed by the international Disaster Victim Identification effort centered in Phuket, Thailand, the Thai government signed a contract to use Gene Codes' M-FISys software as the primary tool for identifying human remains.

The tsunami project will be easier than the New York project in one important respect, Cash told me. The bodies are mostly intact; therefore, not as much sophisticated DNA testing will be necessary.

But the tsunami effort has plenty of other challenges. There are many more unidentified victims: more than 5,000 in Thailand alone, nearly double the number at the World Trade Center.

"Another thing," Cash said, "is that you don't have the largest forensics lab in the world nearby, as we did in New York. And while we knew all the remains were confined to a 60-acre site in New York, they could be finding skeletal remains from the tsunami years from now in remote areas."

From a data-collection standpoint, the logistics are daunting. Tsunami victims in Thailand came from about 30 countries. And they use different processes for DNA testing and reporting results from hair or saliva samples. The M-FISys software must be tweaked to reconcile such differences, Cash said.

Cash has one manager already stationed in Thailand as a liaison for the project. He's returning himself next week for another visit. He expects that forensics, the part of Gene Codes' business devoted to victim identification, will be about 40 to 50 percent of total revenue, which is running at \$9 million to \$10 million a year. That's a big change from less than 4 percent before 9/11, but down a bit from 60 percent during the trade center project.

Lastly, as if we need more proof that major life changes hinge on simple twists of fate, here's one more detour in the life of Howard Cash:

On Dec. 28, in a room of the White House festooned with Christmas decorations, Cash proposed marriage to Elaine Mar, supervisor of the World Trade Center DNA identification unit. They plan to wed later this year.

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