



NOT WORKING 9-TO-5

Last April, dropped off by helicopter onto a remote and windswept Himalayan ridge at an altitude of 15,000 feet near the Tibet border, the last thing Caltech's John Galetzka expected to see was another human being. Yet as he worked alone to install a Global Positioning System (GPS) station, one in a network of stations used by Caltech geologists to measure ground movement, he was surprised to notice a lone figure approaching on foot. It was a pilgrim, says Galetzka, a Nepalese man who, it turned out, had built a small Buddhist shrine on the same ridge and had come to pray. Galetzka shared halting pleasantries with the man, and the two got on with their day. Galetzka spent the next 24 hours on the mountain, working and suffering from altitude sickness. That included spending a freezing night in a sleeping bag, huddled under a shelter he roughed together from an equipment tarp.

For Galetzka, it was just another day at the office.

Clearly this is not your typical nine-to-five. While Galetzka is a bona fide staff employee, you'll almost never find him sitting behind a desk. For that matter, you'll rarely find him sitting anywhere at Caltech, in Pasadena, or within the continental United States. Last year he spent all of four weeks here. Galetzka doesn't have an office, doesn't rent

or own an apartment or house, doesn't own a car. Most of his time is spent either in Nepal, Indonesia, or Taiwan, where he works as a "senior research assistant" (read: field guy) for Caltech geologists Kerry Sieh and Jean-Philippe Avouac. He came to Caltech after serving a four-year stint as a U.S. Army Ranger and earning a geology degree at the University of Oregon. He was hired by the U.S. Geological Survey in Pasadena in 1996, but resigned to work with Sieh and Avouac in 2002. Today his primary responsibilities are to install and repair the GPS stations and to download the data the geologists count on to measure local ground movement caused by tectonic activity. To do this, he travels by boat, helicopter, on horseback, and on foot, scouting out new locations to place the stations, then introducing himself to the local populace in order to negotiate permission to use a piece of their land. "It's a crazy job," laughs Galetzka, who is 37 and, as you might have guessed, single; "But I love it. Lots of travel and a lot of physical challenges."

When the December 26 quake struck, Galetzka was visiting a friend who runs a clandestine humanitarian group in a nearby country run by a military dictatorship. It took him four days on foot, dodging roving military bands and avoiding land mines, before he made it back across the border to meet up with Sieh. With their colleagues, the pair spent the next six weeks getting a firsthand look at the geologic effects of the earthquake, distributing relief supplies, and checking on friends. They downloaded data, made repairs, and continued educating locals about future earthquakes and tsunamis.

Just last summer, the group had spent time educating villagers about earthquakes and tsunamis; now, to the locals, their warnings seemed prophetic. "One of the things we told them to do was to run to the GPS station," says Galetzka. "We try to place our stations on high ground to get good satellite reception, so it was a simple way

Below, left: John with the backpack he rigged for transport of materials and gear to the GPS site atop the hill above the village of Perak Batu, on the east coast of South Pagai island. Below, right: John coaching our helicopter in for the landing at the GPS station on the island of Simuk.





LIVING THROUGH A BIG ONE

Muhammad Oman lives in Gunungsitoli, a city on Nias Island off the west coast of Sumatra. Early reports state that as much as 80 percent of the city was destroyed by the March 28 M 8.7 earthquake. Sieh notes that Gunungsitoli, like many Indonesian cities, has been built on sedimentary, reclaimed swampland close to a river mouth. Here is Oman's eyewitness account, courtesy of a colleague of Sieh's.

"My [hardware] shop is small and only one floor. The other shops [next door] were owned by Chinese and were three or four stories high. They all slept on the top floor or on the roof in hot weather. When the quake started they all ran downstairs to get outside. We were all afraid there would be a tsunami and we were all told to run to high ground if a big quake hit us.

"The Chinese always have three sets of security doors, and when the power failed they could not unlock them fast enough (before their building fell). Almost all the bodies were found on the ground floor.

"I ran for my front door but everything fell off the shelves and I could only get it open a crack before it jammed. I could see the houses going down all along the street one after the other, like they had bombs under them. . . boom, boom, boom.

"Some shops like mine survived because their walls run east-west. The [earthquake] waves shook us from east to west and I was thrown up in the air and kept falling down. Then the fires started all around. The flames lit up the town, and my friends helped me to open my door and get out.

"A few hundred meters away the ground rises, and a low hill is the site of a Catholic school built by German missionaries 80 years ago. The old timber buildings are in perfect condition and packed full of families who have fled the flatland. Next door a modern concrete structure is standing without a crack. They are built on bedrock." □—MW



John and a citizen of Silabu village, on the west coast of North Pagai island, in the process of installing our GPS station there.

to get across an important message in case of a tsunami." He adds that some villagers believe it was the GPS stations that had saved them. "We tried to tell them no, but on one island they had begun to relocate their village around the station. People were settling in, building shelters."

No one he knew was killed, but he saw massive destruction while traveling upriver toward Banda Aceh. "Everything was completely flattened except for a few very strong structures," he says. "You could see dump trucks and bulldozers clearing rubble. Fires were smoking. People were salvaging metal. There were others in hazmat suits. It was a surreal scene." While he was installing a GPS station in another town south of the city, a teenage boy came by to watch. "He was off at school in Banda Aceh at the time of the tsunami," Galetzka says. "He had returned and found that his home, family, and village were gone. I was amazed at the boy's steady demeanor. He had probably cried so much that he couldn't grieve anymore." □—MW



Above: Detail of tsunami damage in a town along the southwest coast of Simeulue.

Right: Among the debris at Sirombu, Nias, people are building a temporary structure to house them while they build a more permanent replacement for their lost home.

