

A Fresno State Surveying Student Exercises Leadership



ACSM Student officers (L–R) Joaquin Depaz (Treasurer), Eric Finley (Vice-President), David Biswanger (President), Nathan Cunningham (Secretary)

That the finest American presidents to date, Washington and Lincoln, started out as land surveyors is a well-known fact of history, and that we surveyors would *still* be better leaders of the free world than lawyers or oil men, or engineers, is merely a simple factual observation, though nowadays it's an observation made almost exclusively by, well, we surveyors, often over a beer or two. So how will this situation ever be remedied? How will surveyors be restored to the heights of power and influence that are our due and where we can resolve so many of the world's challenges?

One way is to develop leadership skills in new surveyors, along with skills like sledgehammer wrangling, the parsing of aerial surveys, and HP calculator programming. That's the approach taken by Fresno State University's Geomatics Engineering Program. David Biswanger, a current student at FSU, says, "One of the more remarkable attributes of the Geomatics Engineering Program is its emphasis on providing

leadership building skills through volunteerism in student clubs, external professional forums, and participation in our chosen vocation. At the outset of our education, our fearless leader Dr. [James K.] Crossfield [LS] encourages us to work in teams, join as many professional organizations as possible—CLSA, ACSM, ASPRS, etc.—and volunteer at the CLSA, ACSM and our own Fresno State Student Geomatics Engineering Conference. I think this is one of the things that makes our department so unique, and I have never seen anything like it in any of the colleges I have attended."

Indeed, Fresno State has been turning out leaders and surveyors since 1971, when the nation's first two students to complete four-year surveying courses graduated there. And Biswanger himself is a good example of a surveyor who intends to take an active role in society, with a vision larger than surveying as simply a trade. Even before graduation, he's found a way to reduce the damage done by war in emerging nations, while also increasing the amount of land available for development... by surveyors!

>> By Angus W. Stocking, LS



(L-R) Dr. Ching Chiaw Choo (CE), Dr. Riadh Munjy, Dr. James Crossfield, Dr. Clement Ojaga

Doing Something Tangible

Biswanger is 40 years old, and surveying is a second career. “My first career was in the hospitality industry,” he explains, “but when I was a kid, I wanted to be an architect. I liked what I was doing, but when you’re in the hospitality industry there’s no real reward—there’s nothing you can point to and say, ‘I did that’. But in surveying, I’ve *already* worked on a bridge as an intern, and when it’s completed I’ll be able to say ‘I helped build that’. It feels great to do something tangible.”

When Biswanger contemplated going back to school in midlife, he thought at first about getting a degree in engineering. “But I knew I wanted to travel and be outside, so between civil engineering and land surveying, surveying seemed to be a better fit for my personality. I knew I didn’t want to be relegated to a cubicle, and in surveying there are a lot of directions to take. I like the historical research involved, the law aspects, the archaeological aspects, and I’m really interested in the parts of the job that involve mediation and serving as an

expert witness. One of the speakers we’ve had here at FSU spoke about helping to *solve* problems, not just being the guys who bring them to light, and I think I might like to do that.”

Biswanger has jumped right in at FSU, and is a member of the student chapters of the American Congress on Surveying and Mapping (ACSM), the American Society for Photogrammetry and Remote Sensing (ASPRS), and the California Land Surveyors Association (CLSA). In fact, he’s president of the ACSM chapter, which had become slightly moribund in recent years. Biswanger wanted to restore the chapter to full vitality, an appropriate leadership challenge. “When I became president, I wanted to do something altruistic as a way of revitalizing the chapter. I had a lot of different ideas, but nothing really seemed right until I ran across an advertisement for the Schonstedt demining initiative. The deal was, buy a utility locator, and Schonstedt would donate a magnetic locator directly to a region of the world where demining was going

on. It seemed perfect: the ACSM is a land-based organization and this was a land-based initiative. And also, surveyors use locators every day—it seemed like a perfect fit.”

There was one problem: the Geomatics Program didn’t really need a utility locator. But a phone call with Schonstedt’s Director of Business Development, Bob Ebberson, resolved that issue. Bob said the chapter could simply purchase a unit directly for donation, and even offered to match the student donation. Biswanger says, “We were on our way...kind of.”

The problem was, demining requires a sensitive, high quality locator and the student donation would have to be more than a \$1,000: how would a chapter of busy, starving students raise that kind of money?

Making a Difference in Katmandu

“We’re engineering and surveying students,” says Biswanger, “we don’t have time to do car washes or bake sales—and besides, I haven’t looked good in a



UN-supported deminers working in the hills of Tajikistan.



Geomatics Engineering Lab at Fresno State.

wet T-shirt in years.” Biswanger recalled reading an article about cell phone recycling, which seemed promising. The company involved, ReCellular, refurbishes old cell phones and resells them in South America and Southeast Asia. It seemed like a win-win-win to Biswanger: recycling cell phones would keep e-waste out of landfills, the funds raised would help to eliminate the scourge of land mines, and in addition,

“we would be doing a public service by helping people properly dispose of their e-waste and get rid of unwanted clutter—one girl brought in twelve phones! (we didn’t ask questions).”

A phone could bring in as much as \$50, but the average was closer to \$3. An organized appeal to FSU’s 22,000 students—the students used flyers (‘operation wallpaper’), the school paper, and radio—brought in about 200

phones; good . . . but not enough. “We were discouraged, but we didn’t give up,” says Biswanger. He made formal appeals to the Monterey Bay and Orange County CLSA Chapters, which have donated almost 200 phones to date, and Schonstedt President Michael Head initiated a cell phone collection program at the firm’s West Virginia plant. A last-minute student donation of 20 mint condition Blackberries (mmm, mint blackberries) put the chapter over the top, and the FSU ACSM chapter met its goal of sending a Schonstedt GA-72Cd magnetic locator to a part of the world where it was needed most.

“We found out that our two magnetic locators—remember, Schonstedt matched our donation—went to Katmandu, Nepal,” says Biswanger, “The government’s fight with Communist rebels has left a lot of land mines and unexploded ordnance (UXO) in the ground there. When we received letters from the United States Department of State and United Nations thanking us for our donations, it made all the hard work worth it.” The FSU ACSM chapter is already making plans to donate another locator in 2009, and hopes to make it an annual event.

Making a Difference

Worldwide, 82 countries are trying to cope with the explosive remnants of war, and between 15,000 and 20,000 civilians are killed or maimed annually—25% being children under the age of 15. And it makes sense for land surveyors to be involved in this land-based humanitarian issue. It frees land up for development or agricultural use and besides, as Biswanger says, “surveying in a mine field can really ruin your day!”

By getting involved in a campus club, and rallying club members to take on a significant humanitarian challenge, Biswanger and those who worked with him are developing valuable leadership skills and saving lives. They’re also demonstrating that motivated surveyors can make a big difference in the lives of others, even those halfway around the world. *AS*

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