Industry
Insider

The People Behind
The Products

Bryn Fosburgh

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>> By Marc Cheves, LS

Wisconsin native Bryn Fosburgh is a surveyor with a long history in our business and an interesting story to tell. Although today he provides product guidance for one of the largest companies in our industry, he didn't get there overnight, and he credits a long line of mentors who influenced him along the way. It's always a pleasure to share "success" stories like Fosburgh's with our readers. We caught up with him at his office in the new Trimble facility in Denver.

From Maps to Mentors

Born in Tomah, Wisconsin, 44-year-old Fosburgh grew up mostly in Green Bay. "Wisconsin was a great place to grow up," he told us. His love of the outdoors provided many hours of hunting and fishing. Unable to afford college, he joined the Coast Guard Reserve, where he was a hospital corpsman. After his service, he attended the University of Wisconsin in Green Bay. His appreciation for nature translated well to a degree in geology. It was also at the university where Bryn met his wife, who has a degree in chemistry. They have one daughter.

Following graduation, Fosburgh became a manual cartographer with the Defense Mapping Agency (now NIMA) in San Antonio, Texas. This was an era where cartographic artists airbrushed shaded relief maps and still drew everything by hand. Fosburgh did aerial interpretation and scribing on scribecoat on a light table. A year later, in 1986, he knew he needed a change, so when he noticed a job posting for a DMA geodesist at Cape Canaveral in Florida, he applied.

The Fosburghs moved to Indian Harbour Beach, near Cocoa Beach. It was there that he met his first mentor, Bruce Hanson (son of well-respected Maryland surveyor Rodney Hanson). Hanson taught Fosburgh survey observation and adjustment fundamentals. He taught him how to set up a tripod, and the basics of turning angles with a T-3, and distance measurement with an HP 3808. Fosburgh recalls his first 16-position azimuth, which took about 16 hours, and how Hanson patiently recorded the observations and provided guidance.

Over the next two years Fosburgh worked all over the Cape, obtaining a well-rounded education on turning angle sets and performing astronomic observations to support the Eastern Test Range, which runs from Maine to South Africa. The range is used for missile launches. Many of the observations were made from a Bilby tower, and some of the

The range of Trimble's products was on display under pleasant blue skies at the dedication of their new facility in the Denver suburb of Westminster.

work was for the Space Shuttle program. His work supported Detachment 4 of the legendary Geodetic Survey Squadron, a high-level Air Force survey team that works all over the world.

As part of his work, Fosburgh began running adjustments on a VAX computer housed at F.E. Warren Air Force Base in Cheyenne, Wyoming. This awakened not only a love, but a talent for math, so he took a one-year educational sabbatical and entered a Masters program at Purdue University in West Lafayette, Indiana. It was there that he met his second mentor, the famous Professor Edward Mikhail. Under Mikhail's guidance, the one-year geodesy and photogrammetry program exposed him to every adjustment course and the theory of EDMs.

A Fork in the Road

The next logical step in his job with the DMA would have involved moving to Washington, D.C. to return to cartography. By this time the DMA had progressed to automation, but still, his heart was not in it. He *did* want to move to Cheyenne, but it wasn't an option at the time. Professor Mikhail had introduced him to Walt Boge, another Purdue graduate, who ran the USACE ETL (Engineering Topographic Lab, now the USACE Topographic Engineering Center) at Fort Belvoir in Virginia. The lab supports the Corps of Engineers with research on all aspects of mapping, positioning, and support of military warfighters.

Fosburgh's next career move, therefore, took him to Ft. Belvoir. It was at ETL where he met a host of mentors, including Steve DeLoach, Ben Remondi, Bill Bergen, and Brian Shannon.

DeLoach taught him how to use applications to solve needs. (DeLoach worked for the Corps of Engineers at Belvoir, followed by many years with EarthData. He is currently employed by the Smithsonian Institution where he works on mapping and GIS). With Ben Remondi, a highly-regarded expert in GPS, Fosburgh became consumed with GPS and its possibilities. He learned from Remondi to solve problems both theoretically and empirically. Using his C language programming skills, he wrote a GPS processing program. Remondi's efforts placed ETL at the forefront of RTK GPS, using it for such things as ship positioning and tide gauge monitoring. Bill Bergen taught him how to determine the problem the customer is trying to solve and not attempt to apply technology for the sake of applying technology. Brian Shannon showed him the practical aspects of using technology to solve engineering problems.

Bryn spent four years at ETL, along with his wife, who worked in ETL's hydrology group. While there, he took another six-month sabbatical as an adjunct instructor for GPS in Purdue's civil engineering department.

By 1993, the Wisconsin natives were longing for home. Fosburgh took a job with the Wisconsin DOT as a Civil Engineer in Madison under Paul Hartzheim. Wisconsin had one of the first HARNs in the country, but Hartzeim realized that to do RTK they were going to need better spacing. Together with Fosburgh, they wrote densification specs for primary, secondary and tertiary control. Fosburgh was responsible for the day-to-day operations of the GPS survey and data processing group for WISDOT.

But their stay in Wisconsin didn't last long. Eighteen months later an opportunity arose for Fosburgh to go to work for Trimble in the sales organization. It was there he met yet another mentor, Ed Down. Fosburgh credits Down with teaching him about sales and the necessity to support the customer at all costs.

During this time, Trimble was collaborating with Caterpillar on machine control, so the Fosburghs moved to Peoria, Illinois for a year and a half to work with mining and construction applications.

Meanwhile, Jim Sorden, a Vice President with Trimble, approached Fosburgh with an opportunity to move to New Zealand to manage Trimble's survey software group. According to Fosburgh, Trimble had the first interoperable, integrated software for GPS and total stations. The software group had been headquartered in New Zealand since 1990 when Trimble acquired Datacom Software Research Ltd. in order to offer new survey and mapping software products. So, in September 1997, the Fosburghs packed their suitcases again and moved to New Zealand where he managed both the development of handheld and PC software and the applications engineering and testing groups.

By this time Fosburgh had gained exposure to the field, survey education, research and development, and sales. Still, he credits yet another mentor, Joe Paiva. Paiva, who was the Vice President of Survey for Trimble, taught him how to manage people with a results-oriented, compassionate approach. In October 1999, Paiva recommended Fosburgh to take over as head of the Survey Group. In January 2000, the Fosburghs returned to the United States. One month later, Trimble CEO Steve Berglund decided that, due the difficulty in hiring new people because of the high cost of living, the Survey Group needed to move away from California's Silicon Valley. The company considered Portland, San Diego, Austin, Phoenix and Sacramento before deciding on Denver, chosen for its central location, airport hub, and abundance of high-tech workers. Berglund has been a mentor as well. Since 2000, he has provided Fosburgh with guidance on mergers and acquisitions, market segmentation, and the financial aspects of his current role.

In July of 2000, Trimble acquired Spectra-Precision, which had already acquired Geodimeter. Fosburgh credits longtime Geodimeter chief Karl Ramstrom for the decision to create a single Trimble brand for the survey market. As we discussed the unified company, Bryn acknowledged that Trimble previously was product-driven; today it is market-driven, focusing more on strategy and fulfilling the needs of its customers.

L-R at the building dedication, Colorado Congressman Mark Udall, Trimble CEO Steve Berglund, and Fosburgh.

After so many moves and so much traveling, one might surmise that Fosburgh is looking to slow down. Not so. Today he manages sales, marketing, R&D and operations. He still does an enormous amount of traveling, managing Trimble's survey and construction operations on a worldwide basis. His daughter attends college in New Zealand, so when he can, he combines business with pleasure to visit her.

With nearly 40 years in the survey industry myself, and more than a decade as an editor/surveyor, I have seen many changes at Trimble. One of the most important changes was its move toward hiring more surveyors. In the early days, Trimble had a staff of approximately 50 surveyors but also relied on non-surveyor engineers and product development people. Today Trimble has more than 1,000 employees in the Engineering & Construction Segment, with more than 150 surveyors on staff worldwide; resulting in products made "by surveyors for surveyors" that don't require a lot of changes after they are released. In 2006, Trimble's revenue was $940.2 million. The Engineering & Construction segment contributed $637.1 million–approximately 68 percent of the company's revenues.

Mentors inspire growth. Like Fosburgh, most of us can look back on our careers and give credit to individuals who have influenced us along the way, who have inspired us to "pay it forward." And as surveyors, we can be proud to have a man like Bryn Fosburgh among our ranks.