

INTERSECTING

THE

TPA, eGPS and Champion Instruments



TRAVIS PRUITT



LONNIE SEARS



JEFF LITTLE



DR. HUIMING SONG

OF SUCCESS

Surveyors understand entrepreneurialism. It's one of the things that made our country great, and how most of the survey companies in existence today got their start. We recently visited Atlanta to learn about a group of companies that exhibit this unique American trait. The story is actually about three surveyors, one Chinese GNSS expert and import/export specialist, and three companies. Their stories are unique, and their interwoven successes all a testament to the rewards of hard work and making the most of opportunity.

Meet Travis Pruitt. In 1959 Travis began working as a rodman for the City of Tuscaloosa while attending the University of Alabama to study civil engineering. From there he went to work for the University Facilities department doing campus mapping and stakeout. After stints with Brown Engineering in Huntsville (working on Saturn V rockets) and a tour in the Army, he moved

>> By Marc Cheves, PS



Lonnie, Jeff and editor Marc Cheves discuss the Champion Instruments gear.



to Atlanta in 1966. He obtained his PE in 1969, and in 1970 began working for Fulton County as an engineer. He also supervised two survey crews. In 1971 he became a Registered Land Surveyor.

On weekends Pruitt would moonlight, doing loan plats. He could do ten per weekend and saved the \$ 650 he made to provide start-up money for what, in 1972, became Travis Pruitt Associates (TPA). In time he met a successful land developer

began to use multi-user computer systems and developed its own survey and engineering software. In 1980, when they couldn't find accounting software to meet their needs, the company developed its own. TPA began using CADD in 1984, and in 1985 wrote its own data collector software. In 1990, the company began using RTK, and in 2004, bought its first robotic total station.

“...we surveyors know all about entrepreneurial activities.”

who encouraged him to add engineering to his surveying activities. It was the start of a long, successful career in land development surveying and engineering.

Always a visionary, Pruitt used part of his start-up money to purchase a 1-second Kern theodolite (\$2,500) and an HP 3800 EDM (\$4,300). In 1979 TPA

Expanding his interests and talents even further, Pruitt also became involved in commercial aviation, and opened an air charter and freight business. He's also created seafood businesses, and at one time was shipping seafood up and down the East Coast. In 2004, TPA started eGPS, one of the first privately-

owned RTNs in the country. That leads to story number two.

Prior to my career in publishing, one of my co-workers at Greenhorne & O'Mara in Maryland was Lonnie Sears. Originally from West Virginia, and a Marine Corps vet, Lonnie transferred to G&O's Atlanta office in 1991. In 1994 he gained his surveying license, and eventually became department head of surveys for G&O. Along the way he became well-versed in geodetic surveying. In 1996, he left G&O and began working for Moore-Bass in Stockbridge, GA where he started the company in surveying to support their land development engineering. The company pursued automation and Lonnie exposed them to robots and GPS.

In 2002, he came to work for TPA as a licensed surveyor and project manager. His department eventually grew to 24 crews. Interestingly, the workforce

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Left: Champion Instruments nV³ receiver.
Right: Lonnie with nV³ and Sceptor controller.

included a dozen or more licensed surveyors. He had been exposed to a Geo++ RTN and RTK Link through study and his contacts over the years. After Trimble bought Terrasat, TPA wanted to set up a VRS for the Atlanta area. The local dealer was reluctant to invest, so TPA decided to do it themselves and called it TPA Network. By April 2004 they had 10 stations running RTK-Net with NET-RS receivers. As further evidence of the company's vision, around this time TPA spent more than a million dollars to purchase 18 rovers and 18 robots. Seeing great success for using GPS for such things as photo control, TPA decided to spin off the RTN and so, on July 29, 2004, eGPS was started.

Lonnie admits that eGPS got off to a slow start, and much time was spent educating companies about the benefits. In 2008, eGPS was the first RTN to incorporate GLONASS into its solution, but getting it to work was difficult. Today, eGPS has more than a thousand full- and part-time subscribers, all using

eGPS's 120 base stations. Sears is greatly respected in RTN circles, and runs one of the most successful private RTNs in the country. Part of the success of eGPS lies in its customer support. The company motto is, "We won't let you fail."

This brings us to the third surveyor in our story, Jeff Little. Jeff is an integral member of the support team. Also a Marine, Jeff has had an illustrious career, including graduating from the National Imagery & Mapping university at Fort Belvoir. While with Precision Products, he became a Certified Trimble Instructor and has trained surveyors all over the southeast. As we visited in their Atlanta office, Lonnie and Jeff smiled as they recounted support stories for some of their agricultural customers who climb into their expensive tractors and just expect everything to work. If it doesn't, they call support, and invariably, after a short conversation are able to get back to work. The same applies to surveyor customers who, for instance, forget to change settings when they pass from one

SPC zone to another, or move beyond the extent of their Geoid separation model and can't figure out why their elevations are off by 97 feet.

The eGPS connection also links to the fourth man in our story, Dr. Huiming Song. Across the globe, Song attended the Beijing University of Aeronautics and Astronautics, obtaining a masters degree in electrical engineering. His wide range of experience includes work with supercomputers, automatic control of cars, and mag-lev trains. While at the university he was also exposed to GPS and inertial guidance systems. Following graduation, he worked for several companies, including Motorola.

In 1999, Song came to the U.S. and quickly gained another masters degree from Florida Atlantic University, this time in software development. After writing routines for data mining, automatic vehicle location and various web applications, he started an import-export business, specializing in OEM navigation boards. In 2003, after his wife

