DAY IN THE LIFE: "It's All About the Adventure"

"What I love about surveying is that one day I'm in our Adelaide office with a client, and the next day I'm in the Outback, jumping into a helicopter with my Trimble R10 to survey a new pipeline route. It's all about the adventure." - Joe D'Aloia

A survey manager at Fyfe Earth Partners of Cooper Basin in South Australia, Joe D'Aloia is passionate about his profession and the unique experiences it brings him. The sparsely settled but untamed Australian Outback where he spends much of his time is challenging—even treacherous—but never dull. From broken-down vehicles stranding him in the Outback to camels bouncing off his jeep's roo bars, surveying is an adventurous life he wouldn't trade.

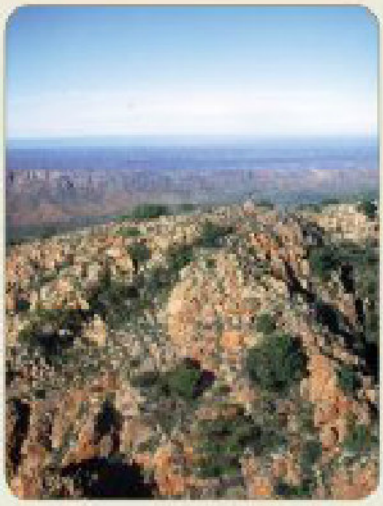
D'Aloia is also passionate about sharing his love of surveying with others. Whether he is training teams in new surveying technology or mentoring on the job site, supporting and teaching others is at the heart of Joe's career satisfaction.

"This is an awesome country to work in as a surveyor because it gives you so many opportunities," says D'Aloia. "With hard work I've been able to do what I enjoy and then travel outside Australia to talk about it."

Starting Out Down Under

Following his interests in building construction and optics, D'Aloia graduated with a Bachelor of Surveying from the University of South Australia in 1989. In 1993 he joined a small surveying group, Fyfe Earth Partners, which two years later won the contract for a large oil and gas project in the Cooper Basin. Since then, Fyfe Earth Partners has expanded Australia-wide, but D'Aloia's primary responsibilities remain focused on the Cooper Basin area, where he has been a Chief Surveyor for the last thirteen years. D'Aloia's survey teams support pipeline construction with route planning and review and D'Aloia travels from Adelaide to the Cooper Basin at least once a month. He travels to other sites throughout Australia about once every three months.

D'Aloia meets with clients and management, and manages each day's survey activities. He also oversees his staff's safety and well-being, which he sees as critical. Given the remoteness of Fyfe's pipeline projects, survey crews usually travel to the job sites for two weeks at a time. Conditions onsite can be rugged, and the time away from home can take its toll. "For safety's sake I need to make sure each surveyor's mind is on the job," says D'Aloia.



D'Aloia has experienced the land's treachery first-hand—he was once stranded 40 km (25 mi) from base camp in 40°C (104°F) heat. D'Aloia and his colleague laid fabric over their broken-down vehicle's windshield for shade and conserved water with small sips every 15 minutes. "The mind plays tricks on you to start walking," says D'Aloia. If it hadn't been for the job's careful booking in-and-out safety procedure, colleagues would not have known to rescue them nine hours later.

It's important to D'Aloia that his teams know he's endured the same challenges they're now working through. "Australia was built upon the sweat of the surveyor," says D'Aloia. "Especially in dividing up pastoral areas so they could be utilized." D'Aloia feels as much satisfaction from his colleagues' achievements as he does his own.

Wider Knowledge Needed

"Surveyors need to know a lot more now than when I started out," says D'Aloia. For example, when assessing an area for a potential pipeline in Australia, D'Aloia today must wear the various hats of an environmentalist (knowing what trees to avoid), a construction professional (understanding how pipelines are laid), and a cultural heritage expert (recognizing where Aboriginal artifacts or burial sites might be located). But the single biggest change in D'Aloia's—and his colleagues'—daily surveying life is the technology.

On D'Aloia's first surveying job, he relied heavily on a chain, but he soon had his hands on the revolutionary new GPS technology of the nineties.

Fyfe began using GPS surveying systems in 1997, beginning with the Trimble 4700 and 4800 systems. They now use approximately 50 sets of Trimble GNSS equipment and 25–30 sets of Trimble total stations. They also employ GIS and 3D scanning systems.

D'Aloia's current instrument of choice is the Trimble R10 GNSS receiver. "The R10 is the lightest, most flexible GPS unit I've ever used," he says. "And R10 capabilities such as Trimble xFill™ let my teams escape the heat faster." For example, once a team was a few points short of completing a job when radio contact from the base station was lost over a high sand dune. The Trimble xFill service "kicked in," allowing them to collect the last points without having to reconnect.

Spreading the Word

About 30 years ago a boy named Joe, who liked playing with optical instruments, grew up to be a surveyor. So what are tomorrow's surveyors playing with today? "That's a question I ask myself often," says D'Aloia, "especially given the shortage of new surveying graduates in Australia."

Perhaps today's raw surveying talent is crouched in front of a PlayStation or Xbox, acquiring 3D spatial awareness that as a boy he could never have imagined. "But I wonder," says D'Aloia, "if these gaming youths will as enthusiastically pack bags for a trip to the Outback and all its real-life challenges."

If surveying is the profession they do choose, D'Aloia knows they are in for a real adventure.