

## Into the Woods

An interview with Kevin Murphy, Western Regional Sales Manager, Leica Geosystems

Tom Foley, CEO/president of Intuicom, Inc., recently gave a presentation at HxGH LIVE focusing on communication issues on the jobsite. “The part of his presentation that caught my attention was the part about effectively using radios in corridors,” recalls Kevin Murphy, Western Regional Sales Manager, Leica Geosystems. “Little did I know that I would be leveraging that information as often as I have.”

One of the projects that Murphy was referring to is the Bridge Creek pipeline project near Bend, Oregon. The project consisted of replacing 10 miles of water transmission mains through the Deschutes National Forest. The jobsite was comprised of mountain roads that snaked through a forest of pine trees forming a canopy on both sides of the road.

The complexity of the job was not lost on anyone, especially Murphy. The environmental challenges found in this part of the Northwest are numerous: it rains a lot, there are plenty of pine trees to contend with, and when their needles get wet, it can be difficult to push any radio signals through this unforgiving canopy.



Figure 1: Typical base station deployment

Did I mention that there is a proliferation of pine trees to contend with? “There were limited opportunities, as far as GPS capabilities, to put up a base station,” states Murphy. “Where I could find an opening with a 50 foot radius in the middle of a bunch of 40 foot tall pine trees to fit the base station, that's what I had to use.” [Figure 1]

Murphy employed Leica's iCON gps 60 as both the base station as well as a rover on this project. This was complemented by iCON gps 80's that were mounted in the dozers and motor graders for precise machine control. Both systems had the Intuicom integrated 900MHz radio option installed.

“We had fantastic radio coverage on this entire project,” Murphy said. “I never pushed it beyond a mile radius, but in these conditions, a mile on a mountain road is pretty darn good. I would have never guessed that we would have been able to go as far as we did, given the conditions.” [Figure 2]

No stranger to competitive receivers, Murphy’s initial introduction to GPS was with non-Leica gear. “With their receivers, in conditions like I encountered on this project, I might have been able to get 1,000 feet away from the base—if that,” emphasizes Murphy. “We saved so much time on this project knowing that we had good radio coverage, start to finish.”

Fundamental to the success of getting the right corrections is an intimate knowledge of the equipment and the environment where it is to be utilized. “The first question we get is how far do your radios go?” Murphy says. “I always laugh because it depends. Radios can go a lot further than you probably ever make them go, but it comes down to the knowledge of where you’re going to put your base station, and where are you going to put your antenna. If you put your base station in a bad area, or if you don’t use the proper radio antenna, you have created a problem that doesn’t need to exist. That’s part of the whole process with working with Leica Geosystems. It’s a big part in what makes us so successful in this space. It comes down to the knowledge and experience that we have.”

It is rare that any project progress without a hitch, and the Bridge Creek pipeline project was no exception. Early in the project, one of the dozers was unable to get a fix. Initially, it was thought that the receiver might be mounted in a position that caused it to overheat. That proved not to be the case. What was later discovered was that the radio antenna cable had been pulled out of the base—an easy fix.

“One of the biggest advantages in working with Intuicom is their knowledge of how to use the implement radio on a variety of projects, in real-world situations,” quotes Murphy. “I run into competitive situations on a regular basis. Most of my business comes from those encounters. They have no idea what they’re doing when it comes to radios. They set their customers up with these hodge-podge solutions, and their customers have radio difficulties all day long—I



**Figure 2: Fixed at over a mile from the base**

think they have just gotten used to it over the years. They use 450MHz radios when they shouldn't be, which results in weak update rates. We're far happier with the simplicity of working with Intuicom radios.”

Customers regularly comment that they see the advantage of having an integrated solution rather than dealing with multiple components. “People view the Intuicom integrated slot-in radio as a far superior solution when compared to a \$7,000 radio stuck on the side of a machine—especially if it’s big, and bright and yellow,” Murphy states. “That just screams, Steal Me! It just doesn't make sense today. Our solution is far superior to anything that our competitors offer because it makes sense to the customer. You don't have to set-up and take down the radio everyday. Over time that really adds up, plus you don't have to worry about your radio being stolen.”

Experience, knowledge and the right equipment are essential to a successful project. Yet without communications, it can all be for naught, as Murphy summarizes: “The link between the receiver, or the rover, and whatever is transmitting your corrections, is the key to this whole thing. This is why having Intuicom as an integrated part of the Leica Geosystems solution sets us apart from the competition. I love preaching this message, because it just works!”

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