

Capturing New Opportunities

The 2008 Leica Geosystems user conference highlights practical applications for advanced data capture technologies.

EVENT: 2008 Leica Geosystems HDS and Airborne Sensor Worldwide User Conference

HOST: Leica Geosystems

LOCATION: San Ramon, Calif.

DATES: Oct. 26-30, 2008

NUMBER OF ATTENDEES: 400+

FUTURE DATES AND LOCATION: TBA

A number of industries contracted severely in 2008 and are expected to remain weak. Notably absent from this trend, however, is the broad field of geospatial data capture using laser scanning, LiDAR and other technologies. The geospatial market as a whole is projected to grow over the next several years as a number of firms seek to capitalize on new opportunities, according to Juergen Dold, Ph.D., president of Leica's Geospatial Solutions Division. In this challenging economy, surveying firms have seen some traditional fields of application disappear, Dold said in his introduction to the 2008 Leica Geosystems HDS and Airborne Sensor Worldwide User Conference in San Ramon, Calif., Oct. 26-30, 2008. However, he noted, "firms that have been able to create new applications are doing well."

The conference highlighted numerous examples of such firms in the High-Definition Surveying (HDS) track. For the first time, the event was combined with Leica's Airborne Sensor conference, which provided information and hands-on training for Leica's ADS, ALS and RCD/RC30 technologies in a separate track.

Juergen Dold, Ph.D., president of Leica's Geospatial Solutions Division, said that new applications in the geospatial market provide opportunities for growth.

Surveying in 3D

Representatives from large multinational corporations and small businesses described how their companies are using laser scanning technologies in combination with sophisticated software to develop precise, highly detailed 3D deliverables to attract new clients—often at a premium price. For example, Stantec, a 9,000-employee engineering firm head-

quartered in Edmonton, Alberta, Canada, with offices in 150 locations, has completed 3D laser scanning projects for the City of Tucson, Ariz.; a building in New York City; and Columbia University in New York; among others. According to Chris Zmijewski, a principal of the firm and practice leader of digital imaging for the Survey and Geomatics Division, the firm was able to create realistic animated models for all of these projects by combining scanned images with the capabilities of Leica's TruView, a Web-enabled panoramic point cloud viewer.

The RLS Group LLC, a small land surveying firm based in Chattanooga, Tenn., had been primarily serving the commercial construction market until it acquired a Leica ScanStation laser scanner and Cyclone point cloud processing software in 2006. The technology has allowed the firm to diversify into other markets, such as scanning inside existing industrial facilities for retrofit projects. According to Shane Loyd, owner and founder, the firm's 2008 revenues would have declined by 30 percent without the scanning technology. Instead, the company experienced record revenues and expects to see continued growth in 2009. "Being in the right place at the right time has opened opportunities for us," he said. "You have to be willing to step outside your comfort zone and make yourself available."

Other presentations highlighted applications in the fields of energy, civil and architectural engineering, archaeological and historical sites, and cell phone towers. In all of these instances, understanding the capabilities of the technology and knowing how to market those capabilities have been key. In a marketing panel held during the conference, Arik Degani, chief executive officer of Mabat 3D Technologies Ltd., a surveying and mapping firm based in Tirat-Ha-Carmel, Israel, emphasized that the client's needs are paramount. "Don't give them more than what they need, but don't compromise on price," he said. "Remember: application, application, application." Demonstrating the value of the deliverables—such as the ability to save clients time or money or provide an enhanced product that they can use to attract additional clients—is much more effective than talking about the technologies themselves, he noted.





More than 400 professionals attended the joint HDS and Airborne Sensor conference.

The Airborne Sensor track featured experts from Leica Geosystems who detailed the components and operation of Leica's ADS40 and ADS80 airborne digital sensors; provided tips for using Leica FPES (flight planning and evaluation software); and gave hands-on demonstrations for user installation, sensor operation, pre-flight and in-flight checks, sensor configuration, and troubleshooting. Other specialists provided insights on Leica's ALS technology and gave demonstrations on how to obtain high-quality georeferences with the RCD105 by using the proper bore-sight calibration techniques. Flight planning, calibration techniques, exposure optimization and troubleshooting for the RC30 were also addressed.

The dates for the 2009 conference have not yet been announced. For more information, visit www.leica-geosystems.com.

Special reporting by POB Editor Christine L. Grahl.

Opportunities from the Air

In the keynote address, Jerry Allen, survey phase manager of the design, engineering and geospatial firm Woolpert Inc., described how his firm is combining 3D terrestrial laser scanning with high-altitude photogrammetry to produce sophisticated and highly accurate digital terrain models (DTM) for highway construction and other

civil engineering projects. He pointed out that the basic data for these projects could be gathered using either ground-based surveys or airborne LiDAR alone. However, combining these technologies provides a substantial level of additional detail that is crucial to ensuring quality. "Data fusion allows for seamless data sets leveraging the technology for each task," Allen said.