

Multiple Pulses in Air

Leica Geosystems (Switzerland) has developed an advanced laser distance measurement technology. It allows measurements to be made at significantly higher rates than conventional time-of-flight distance measurement systems. Unlike current time-of-flight systems, Leica Geosystems' new "Multiple Pulses in Air"™ (MPiA) Technology does not depend on receiving the target reflection before starting the next distance measurement cycle. The result is the ability to double or even triple the rate at which distance data can be obtained today, without sacrificing data accuracy.

According to Dr. Juergen Dold, senior vice president of Leica Geosystems' Imaging and Scanning Business Area, "This technology has the potential of radically increasing the productivity of airborne and ground-based data acquisition systems. In a first step, we expect to offer our airborne Lidar customers an upgrade path from our current industry-leading 150kHz data acquisition rate to even higher rates. This will enable our customers to fly a significantly wider swath at the same point densities as today, or acquire significantly increased point densities with the same swaths as today. Either option ultimately leads to significant cost savings through dramatically reduced flight costs."

Worldwide patent applications covering Leica Geosystems' MPiA technology are pending. The technology has been successfully tested in real-world applications, and is now ready for incorporation into product lines. "These are the kinds of changes that the market expects from a technology leader such as Leica Geosystems, and we look forward to applying this new development", says Dr. Dold.

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