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Taking off with a New Innovative Survey Aircraft

RIEGL Laser Measurement Systems (<u>www.riegl.com</u>) and Diamond Aircraft Industries (<u>www.diamond-sensing.com</u>) are pleased to introduce their next generation survey aircraft, as announced in March 2010.

Airborne Laser Scanning is a rapid, highly accurate and efficient method of capturing 3D data of large areas for various applications like, e.g., city modeling, power line monitoring, large area and flood plain mapping and even precise digital terrain modeling. Up to now airborne service providers had to put a lot of time and work into system integration and data acquisition - a major cost factor of the whole surveying mission.

As a result of intensive R&D efforts, service providers are offered an extremely time and cost effective solution now: The two leading manufacturers Diamond Aircraft and *RIEGL* Laser Measurement Systems are launching a turnkey survey aircraft as announced early this year – now ready for short-term delivery. With the high performance *RIEGL* airborne laser scanner LMS-Q680i fully integrated into the "Universal Nose" of the Diamond DA42 Multi Purpose Platform (MPP) an innovative, high-performance and efficient overall system for surveying missions is available.

"The new airborne laser scanning system stood the proof in numerous test flights, and the flight characteristics of the DA42 MPP are really excellent! Thanks to the low weight of the surveying equipment and the remaining higher pay load, the maximum flight duration is noticeably expanded", explained Peter Rieger, Product Manager Airborne Laser Scanning at *RIEGL*.

Christian Dries, CEO Diamond Aircraft, "Covered by the EASA certificate - already obtained in June - the plane is ready for operation without the necessity of a further time consuming and cost-intensive integration process."

The system comprises of the most economical survey aircraft on the market, the Diamond DA42 MPP, and *RIEGL's* state-of-the-art airborne laser scanner LMS-Q680i.

The Diamond DA42 MPP is an innovative composite, twin-engine aircraft with a standard installed new Austro Engine. Designed as multipurpose platform the aircraft is ready to carry various sensors.

The *RIEGL* LMS-Q680i airborne laser scanner offers an unrivaled laser pulse repetition rate of up to 400 kHz, corresponding to an effective measurement rate of up to 266,000 measurements on the ground – per second. Application of the innovative, state-of-the-art *RIEGL* measurement technologies allows benefiting from these high pulse rates even from high flight altitudes.



Handling of the system is remarkably simple. As the "Universal Nose" is flexibly interchangeable, it is possible to install another sensor – for example for a photogrammetric task – within some minutes.

So, the field of possible applications of the aircraft is increased, improving the return of investment significantly.

For further information please visit:

www.diamond-sensing.com www.riegl.com



Diamond DA42 MPP equipped with *RIEGL* NP680i: an innovative, high-performance and efficient overall system for surveying missions



RIEGL NP680i: High-performance surveying technology fully included in the nose pod