NEW

RIEGL BathyCopter

ULS

The *RIEGL* BathyCopter is the world's first Small-UAV-based surveying system capable of measuring through the water surface, ideally suited for generating profiles of waterbodies.

The robust and reliable platform design of *RIEGL*'s remotely piloted RiCOPTER integrates the topo-bathymetric *RIEGL* LiDAR sensor, an IMU/GNSS unit with antenna, a control unit, and a digital camera.
The BathyCopter marks the first complete Small-UAV LiDAR solution for hydrographic data acquisition!

NEW RIEGL BathyCopter

World's first Small-UAV-Based Surveying System for Hydrographic Applications

Typical Applications

- Generation of river profiles
- Repeated survey of water reservoirs
- Canal surveying
- Landscaping
- Support of construction works
- Surveys for planning and carrying out hydraulic engineering work

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RIEGL®

RIEGL LMS GmbH, Austria | *RIEGL USA Inc.* | *RIEGL Japan Ltd.* | *RIEGL China Ltd.*

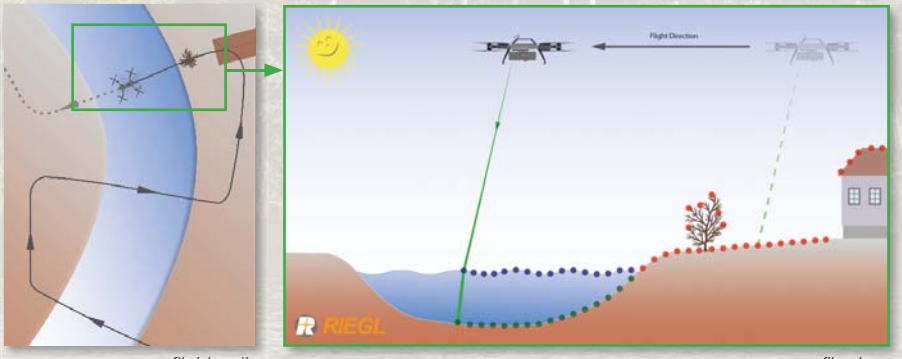
RIEGL BathyCopter Key Features

- UAV-based surveying system capable of measuring through the water surface
- ideally suited for generating profiles of waterbodies
- fully integrated solution, comprising *a* newly developed *RIEGL* green laser rangefinder, IMU/INS unit, camera, and a high performance data storage unit
- essential performance improvement at adverse conditions based on predetection averaging
- highly accurate, reliable and informative bathymetric data resulting from *RIEGL*'s proprietary know-how in echo digitization and online waveform processing

RIEGL BathyCopter Specifications

Laser Class according to IEC60825-1:2007	2M 
Flight Altitude **Operating Flight Altitude**	up to 2,500 ft AMSL (Above Mean Sea Level) operational limits for civil unmanned aircraft according to national regulations to be observed 10 - 30 m AWSL (Above Water Surface Level)
MTOM (Maximum Take-Off Mass)	< 25 kg
Flight Endurance	up to 30 min
Measurement Direction	downward-looking, 8° off nadir
Measurement Rate	4 kHz
Water Penetration	> 1 Secchi depth
Camera Interfaces	2x trigger and event marker
Camera integrated	Sony Alpha 6000
Power Supply **Power Consumption**	24 V DC 62.4 W (laser on), 57 W (laser off)
IMU/GNSS unit	APX 15
Operation Temperature	+10°C up to +40°C
Main Dimensions arms folded (for transportation & storage) arms unfolded (ready to fly)	 624mm x 986mm x 470mm 1,920mm x 1,820mm x 470mm
Transportation Case (dimensions)	1,220mm x 810mm x 540mm

RIEGL BathyCopter Measuring Principle



flight path *profile view*

RIEGL BathyCopter Highlights

Easy to carry

RIEGL BathyCopter ready for take off

foldable arms facilitate easy transportation and storage

RIEGL BathyCopter Ground Station (optional)

YouTube

Watch our videos!
youtube.com/riegllms

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