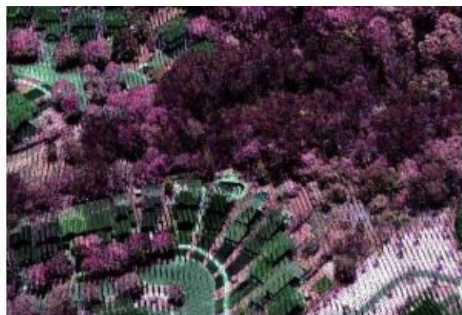


Optech Announces Multispectral Airborne Lidar Sensor



Optech has announced the latest addition to its line of airborne laser terrain mappers (ALTM), the Optech Titan. The Canada-based company regards the Optech Titan as the launch of a new era in remote sensing, as the mapper offers the possibility of multispectral active imaging of the environment at day and night, allowing new vertical applications and information extraction capabilities for Lidar.

In the past, single or dual-wavelength sensors were developed for specific market verticals and application requirements. Optech states the [Titan](#) breaks away from this convention by combining three beams with separate wavelengths, increasing the information content that can be derived from the target surface and allowing surveying professionals to address many more applications using a single sensor solution. The Titan is designed for

a wide-range of tasks, such as high-precision, high-density topographic surveying, land cover classification, vegetation mapping, or shallow water bathymetry.

According to Michael Sitar, Optech's business manager for Airborne Mapping Solutions, Titan is a paradigm shift from what has traditionally been possible using airborne Lidar. By combining multiple wavelengths the company not only managed to improve current methods and results for existing applications, but also opens up completely new opportunities and applications for Lidar moving forward. Titan represents a premium environmental mapping solution capable of much more than simple coordinate measurement, Sitar added,

Laser beams

Titan incorporates three independent laser beams at different wavelengths, with a combined ground sampling rate approaching 1MHz. The sensor includes full gyro-stabilisation compatibility for predictable point distribution and a fully-programmable scanner for significant point density increases at narrower FOVs. Passive imagery support is available via fully-embedded [high-resolution metric mapping cameras](#), including multispectral, thermal, NIR and RGB. For applications that demand it, Titan also includes [full-waveform recording](#) capability for each independent Lidar wavelength.

Workflow is a critical component of any successful remote sensing solution. Standard software deliverables with Titan include Optech FMS, a fully-featured flight management system that enables integrated mission planning for both Lidar and camera, aircraft navigation, and real-time monitoring of the 3D active point clouds from each data channel alongside passive image thumbnails for in-air collection confidence. Also included is [Optech's Lidar Mapping Suite \(LMS\)](#), an industry benchmark for production Lidar processing and accuracy quantification across the entire project extent. Titan also includes an LMS software extension that provides enhanced map product deliverables for bathymetric and land cover classifications by leveraging Titan's multispectral capability.

See also the Optech company page at [Geo-matching.com](#).