



Lidar and Ortho Surveys

Lidar (light detection and ranging) is a fairly young technology designed to provide topographic mapping. When combined with a digital camera, a complete, high-speed mapping system is created. Southern Mapping uses Optech lidar units and medium format cameras. A lidar system measures distances directly from the aircraft to the ground during flight. The accuracy, point density and image resolution are a direct function of flying height.

The laser is able to penetrate through gaps in vegetation and measure accurate ground level heights. Lidar points have very high, inherent accuracy and coupled with a high point density, produce an extremely high accuracy ground and above ground data set. Advances in measuring equipment (GPS and IMU units) used on modern survey aircraft means little to no ground control is required. Lidar is also an active sensor and can be flown in suboptimal weather conditions and even at night.



About Southern Mapping

Southern Mapping, a Woolpert company, is based in Johannesburg, South Africa. Southern Mapping offers extensive high-accuracy lidar, imagery and remote sensing experience, as well as airborne topographic, hyperspectral, and thermal survey and mapping. We provide mapping services for engineering, infrastructure, mining, mapping, agriculture and environmental sectors in more than 45 African countries. Together with our parent company Woolpert, Inc., our talent includes a deep bench of worldwide, industry-leading experts that acquire, process and evaluate aerial, terrestrial, and bathymetric lidar and survey data. Through that alignment we employ our own fleet of manned and unmanned aircraft and cutting-edge sensors for both public and private applications. Southern Mapping is proud to be part of this powerful geospatial team, applying a wealth of unparalleled services across the globe.



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