

SGL News - 2007



Sander Geophysics (SGL) is recognized as the largest independently owned airborne survey company in the world. Founded by Dr. George Sander in 1956, the company celebrated its 50th anniversary last year.

Continued Steady Growth SGL is expanding its head office in Ottawa, Canada to house its growing worldwide operations. The three storey addition will accommodate new data processing facilities, laboratories and offices. The building is designed to minimize environmental impact and will include geothermal heating and cooling. Construction of the new addition will begin in the fall of 2007 and will provide additional space to accommodate the over 150 employees working at SGL.

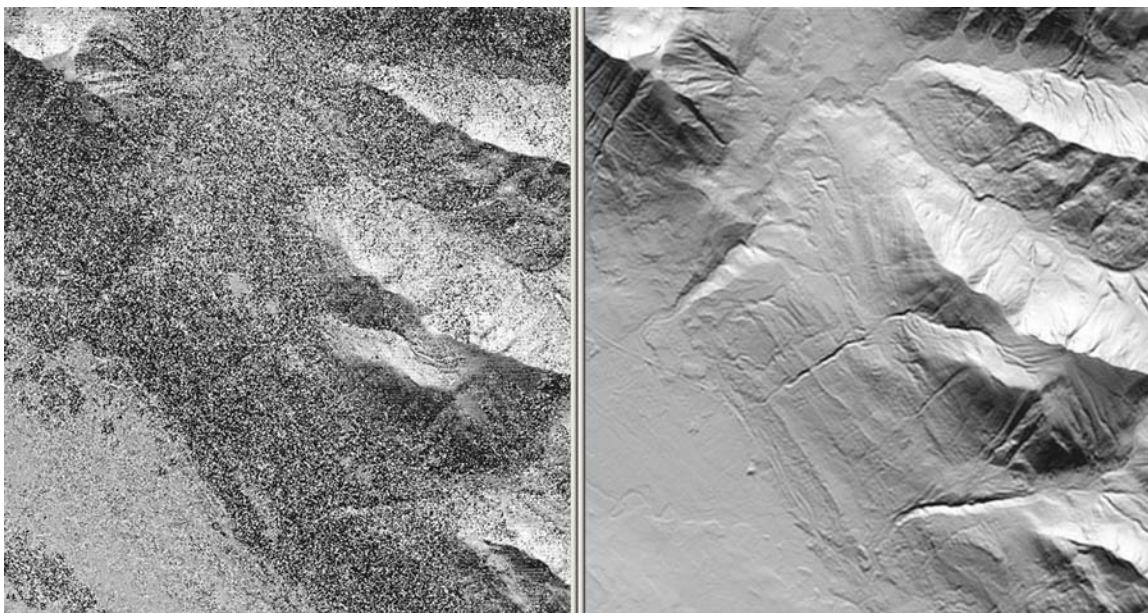
Additions to the SGL Fleet of Aircraft Our newest acquisitions, three Diamond Aircraft DA42 Twin Stars, and a Cessna 208B Grand Caravan (SGL's eighth Caravan) increase the company's fleet to 14 airplanes and one helicopter.



The DA42 is an all composite aircraft, powered by twin diesel engines. The extremely efficient diesel engines are designed to use Jet Fuel, which is more readily available than traditional piston engine aviation gasoline in many countries. The Diamond Twin Star is ideal for high resolution magnetic surveys because of its low magnetic signature, due to the aircraft's all composite construction.

AIRGrav Systems The new aircraft are being prepared to fly SGL's AIRGrav system, the only purpose-built airborne gravimeter designed specifically for the unique characteristics of the airborne environment. AIRGrav continues to attract attention as a superior gravity instrument and has become the system of choice for high resolution airborne gravity surveys. With the AIRGrav system and GPS-based calculations of aircraft accelerations, SGL provides high quality gravity data for use in petroleum exploration, mineral exploration, regional geophysical mapping, and geodesy.

Scanning LiDAR System SGL has introduced a new laser scanner system, SGLas. This scanning LiDAR (Light Detection and Ranging) system collects laser ranges along with GPS locations and aircraft pitch, roll and yaw measurements. The data is collected simultaneously with other geophysical data such as AIRGrav or aeromagnetic data from an airplane or helicopter. SGLas allows the company to produce high resolution digital elevation models, which are used for geotechnical mapping, gravity terrain corrections, and environmental assessments.



SGL's scanning LiDAR digital terrain model before tree removal

SGL's scanning LiDAR digital terrain model after tree removal

SGLas uses a near infrared laser with a rotating polygon mirror scanner and also provides RGB 24-bit colour images in addition to the laser measurements. This allows SGL to provide an accurate digital image of the ground surface colour and elevation in addition to the geophysical data collected.

Worldwide Services SGL continues to fly geophysical surveys worldwide. Along with AIRGrav surveys, the company performs high resolution magnetometer surveys, and radiometric surveys using airplanes and helicopters. SGL also performs environmental surveys using gamma-ray spectrometers and specialized processing to detect, quantify, and monitor natural and anthropogenic radiation.

During the last year Sander Geophysics has performed airborne geophysical surveys on five continents, and in environments ranging from desert to rainforest to high arctic.