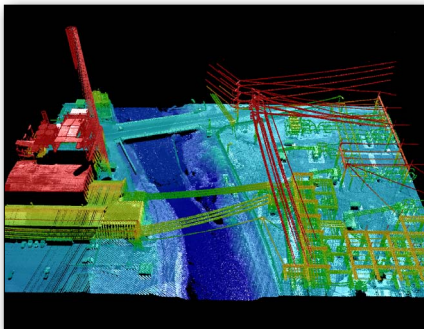


HIGH DENSITY AERIAL MAPPING

Helicopter Platform

Merrick & Company's GeoSpatial Solutions (GSS) group provides high density, helicopter-based airborne mapping. The data acquisition system is specifically designed to simultaneously collect LiDAR elevation data and high resolution imagery from low altitude missions, where high precision is required to support engineering design services. The addition of this system to the existing fleet will allow Merrick to acquire high-fidelity remote sensing datasets for linear corridor projects like electric transmission lines, transportation corridors, and utility pipelines, while also supporting mapping projects involving large, contiguous areas such as airfields, wind farms, and flood plains.



Benefits

- Helicopter platform allows for low altitude operations and provides increased detail & accuracy
- Improved single-pass flight efficiencies, thus requiring less flying time
- New Optech LiDAR equipment provides greater accuracy, better vegetation penetration, and much more feature definition

Helicopter Components (Payload)

Merrick's helicopter-based airborne mapping system was designed to provide accurate geospatial data products from a portable, state-of-the-art sensor pod containing the following system components.

- Optech C200 LiDAR sensor
- Trimble TAC 60 MP nadir RGB digital camera
- GSI nadir CIR digital camera
- GSI forward/aft oblique RGB digital cameras
- Applanix POS AV 510 GPS and Inertial Measurement Unit
- Aventech AvSTAR (real-time flight tracking)
- Aventech AIMMS-20 airborne weather sensor
- Trimble R7 GPS base stations

The portability of this new sensor platform allows Merrick to ship the equipment to any location for use on compatible aircraft (rotary or fixed wing).

Corporate Profile

Merrick & Company, an \$100 million geospatial, engineering, architecture, design-build, and surveying firm, serves domestic and international clients by providing geospatial technologies, products, and services for the infrastructure, energy, and security markets. The firm's most recent work includes providing remote sensing services and data management for Xcel Energy, F.E. Warren Air Force Base, the U.S. Army Corps of Engineers (Mobile District), and ISA (South America). Merrick maintains eight offices in the U.S. as well as two offices in Mexico and an office in Canada.

CONTACTS:

Gary Outlaw, GISP | VP, Business Development GeoSpatial Solutions | gary.outlaw@merrick.com

Torin Haskell, GISP | Business Development Director | torin.haskell@merrick.com

Merrick & Company | 2450 South Peoria Street | Aurora, Colorado 80014

Tel: 800-544-1714 | Web: <http://www.merrick.com/gis>

Operating Specifications

- Operating Altitude: 50-1000 meters AGL
- Vertical Accuracy: 1-3 cm (RMSE z)
- Horizontal Accuracy: 10-15 cm
- Laser Wavelength: 1,541 nm
- Laser Pulse Rate: 100-200 kHz
- Minimum Pulse Separation: 0.7 meter
- GSD Range: 5-200+ points per square meter
- Field of View (FOV): 50° degrees (maximum)
- Intensity Range: 12-bit

Markets Served

- Energy
 - Transmission, pipeline, new construction (wind farms)
- Transportation
 - Highways, bridges, rail, port
- Natural Resources
 - Hydrological, earthen, mining, forestry