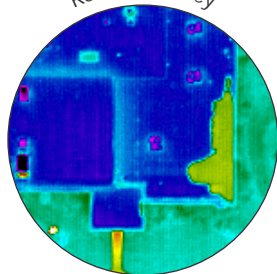




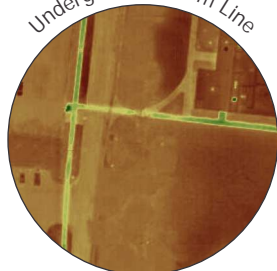
T h e r m a l M a p p i n g

A i r b o r n e A p p l i c a t i o n s

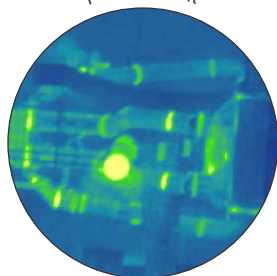
Rooftop Survey



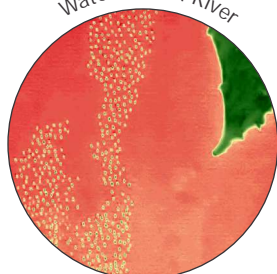
Underground Steam Line



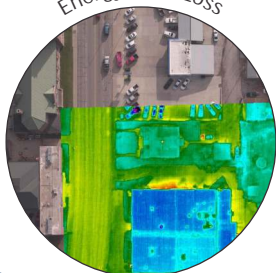
Power Plant



Waterfowl on River



Energy Heat Loss



Thermal Imaging Technology

Cornerstone Mapping is using the latest thermal sensor technology in a thermal mapping camera system. The thermal camera is fully integrated with Airborne GPS/IMU and a flight navigation system. The thermal camera operates as a stand-alone system for night-time acquisitions. For day-time flights, the thermal camera is coupled to a high-resolution color or CIR camera. The thermal imagery is orthorectified and co-registered with the color imagery.

Application Highlight

Thermal imagery is a powerful tool that enables us to 'see' invisible heat signatures. The ability to visualize heat loss from buildings and steam lines represents opportunities to save energy. The energy savings from an airborne thermal survey enables building and facility managers to optimize budgets and direct funds to high-priority projects.

New information comes to life as thermal imagery is combined with other GIS data layers. Associating heat loss with addresses and energy bills enables socioeconomic analysis and ultimately, target programs for efficient use of funding.

Colorizing the thermal imagery is a useful method of communicating to authorities, home owners, and facility managers. Combining the thermal mosaic with underlying orthophotography greatly enhances the interpretation of the data and provides opportunities for improved green energy goals.

Advantages and Opportunities

- Orthorectified Thermal Mosaic
- Efficient Collection of Thermal Data
- Usable with Orthophotos and GIS Data Layers
- Integrated into Your GIS Just Like an Aerial Photo

Thermal Imagery Applications

- Heat Loss from Buildings
- Flat-Roof Surveys
- Wildlife Surveys
- Crop Hybrid Selection
- Precision Agriculture
- River Pollution
- Irrigation Canal Leaks
- Stream Habitat Assessment
- Power Line Problem Detection
- Underground Steam Line Monitoring

Thermal Camera Features

- Digital Thermal Camera
- 16-bit Resolution
- Long Wave Thermal (7.5 μm - 14 μm)
- Temperature Measurement Down to 0.1 $^{\circ}\text{C}$
- Radiometrically Calibrated Imagery