

## Other Services

### Aerial Infrared Division

- Aerial Infrared Roof Moisture Surveys
- Underground Steam System Surveys
- Electric Utility Transmission / Dist. Lines
- Animal Census, Environmental Surveys

### Electrical & Mechanical IR Division

- Utility Substations & Transformers
- Main Switchgear, Incoming Lines
- Bus ducts, Power Distribution Panels
- Machine Control Panels
- UPS Systems and Generators
- Electric Motor & Mechanical Systems
- Steam Systems Surveys

### Process Control/R&D Division

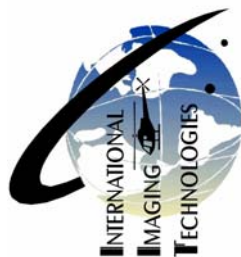
- Machine Speed & Quality Assurance
- Infrared Analysis of Product and Lines
- Process Control Improvements
- Unbiased On-Line IR Feasibility Studies
- Infrared (FEA) Finite Element Analysis
- Pulp & Paper Machine Diagnostics
- Circuit Board Infrared Analysis

### Building Q/A Division

- Building Structural Q/A Surveys
- Building Heat Loss Analysis
- Cold Storage Warehouse Surveys

.....and much more!

**Call Today!**



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**International Imaging**  
**Technologies**

**(904) 226-1840**

On the World Wide Web at:

**[www.iitfl.com](http://www.iitfl.com)**

# Roof Asset Management

Our IIT Infrared Thermographers can fly over your building and in seconds record digital infrared imagery of your roof. Upon returning to our offices, we can put together an **Aerial Infrared Roof Moisture Survey** and you will start to take charge of your roof. These high-quality reports are tailored to your specific needs.

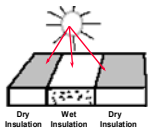
## State-of-the-Art Infrared Equipment

Because of it's higher mass, the water in your roof substrate radiates heat longer at night than the dry substrate. IR cameras can 'see' this heat. High-resolution, full-time recording and digital imagery make the difference. The cameras we use for aerial infrared have four (4) times the resolution of a modern focal plane array camera, which are used for checking electrical switchgear and for on-roof surveying.



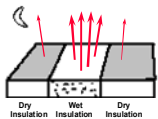
**Aircraft #2 —a Cessna 182**  
with an integrated High-Resolution Infrared Imaging

## Here's How it Works



At night the roof radiates the heat back out into the atmosphere.

During the day the sun radiates energy, and heats up the roof.



At night, areas of roof moisture are warmer, because the latent heat (from daylight sunshine) in the trapped water mass is warmer than in the dry,

functioning insulation or roof substrate. After sunset, when the roof's structure cools down, wet areas of roof insulation and other materials continue to radiate heat, allowing our sensitive infrared cameras to detect the sources of heat and record them for later analysis.

## Aerial infrared imaging provides:

- ➔ High-angle, high-resolution, straight-down infrared images which lessen reflections.
- ➔ High-resolution images that capture large areas at once, making report preparation easier and less expensive to produce.
- ➔ A more cost-effective platform to obtain infrared imagery than rotor-wing, while reducing ferry times & vibrations.

## Buy No More Than You Need

**Edited Videotape**—Edited videotape can be made from the original digital video and copied onto VHS.

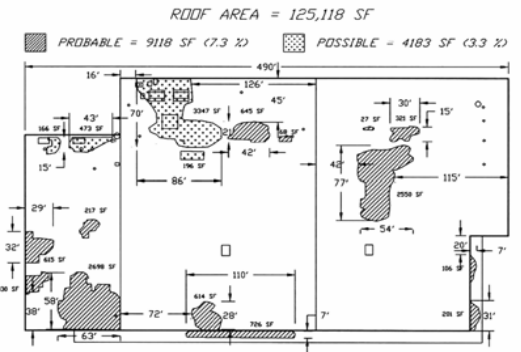
**Printed thermographs**—Infrared thermographs (infrared pictures) of the individual roof sections can be printed in high-resolution.

**Aerial photographs**—Photographs of the roof (straight-down) and building site (low-angle) can be printed high-resolution.

**AutoCAD drawings**—AutoCAD™ drawings can be printed and saved to disk. Drawings are made by analyzing all the infrared, photographic and drawing information.

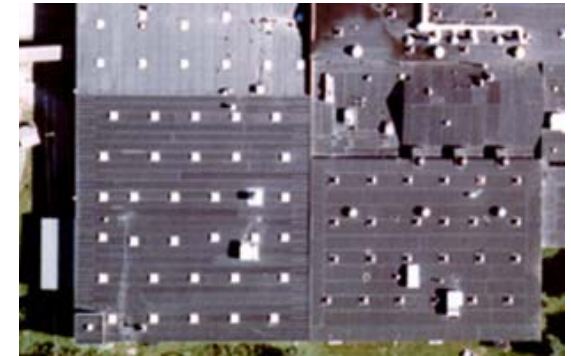
**Digital report**—A quantitative infrared roof moisture survey report would include all of the above, printed in high-resolution and saved to a CD, put on the Internet with a password to access, and/or e-mailed to all parties.

Aircraft are equipped with the latest in directional and digital infrared recording equipment.

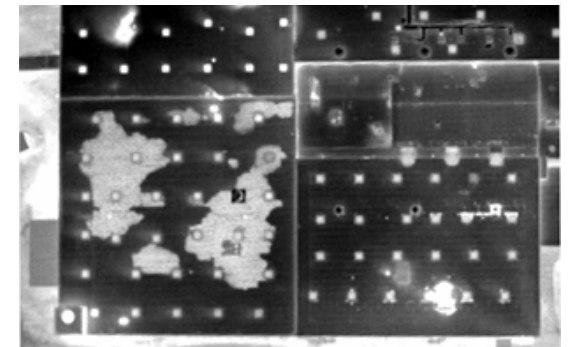


AutoCADs can be made using the aerial photographs and thermographs. This creates a bid document, so that the repairs can be made with surgical precision.

## Aerial photograph of a roof.



## Aerial thermograph of a roof.



Thermograph taken from 2000 ft. A.G.L. (Above Ground Level) showing crystal clear outlines of subsurface moisture.