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## Director's Message



Many animals and even some people are credited with having a sixth sense for knowing or anticipating events before they happen. The benefits of this seemingly supernatural power can be enjoyed by applying a discipline known as situational awareness.

Situational awareness is a technique that has been practiced by pilots and military personnel for several years. It is a behavior that requires a person to be cognizant of his/her surroundings and to constantly anticipate what might happen next. By being aware of what might happen, one is better able to plan an appropriate response before an event occurs, thereby avoiding surprises.

In the hazardous environments where thermographers frequently work, practicing situational awareness makes sense. Thermographers can apply this discipline by observing the following:

- Always be aware of your immediate surroundings and the hazards contained therein
- Recognize how the actions of others might affect your situation
- Pay attention to weather or environmental conditions that may present a hazard
- Have a response plan for any emergency that could occur
- Know where emergency equipment and communications devices are located
- Identify both primary and secondary evacuation routes for use in case of an emergency

Practicing situational awareness can vastly improve your personal safety by helping to eliminate surprises and the confusion that goes along with them.

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## IR Inspection of Capacitors

Capacitors are devices commonly found in AC electrical distribution systems where power factor correction is required. Like any electrical component, capacitors need to be regularly checked for proper operation. Infrared thermography can be used to rapidly inspect capacitors from a safe, remote distance.



## Upcoming Courses

### [Online Distance Learning](#)

#### [Level I Certified Infrared Thermographer®](#)

- Mar 7 - 10 Edmonton
- Mar 7 - 11 Las Vegas
- Mar 14 - 17 Calgary
- Mar 21 - 25 Melbourne
- Mar 21 - 25 Salt Lake City
- Apr 4 - 8 Trinidad
- Apr 18 - 22 West Windsor
- Apr 18 - 22 Portland, TX
- Apr 25 - 29 Twin Falls
- May 9 - 13 Las Vegas
- May 16 - 20 Perth
- May 18 - 20 Perth\*

\* Flexible Learning

#### [Level II Certified Infrared Thermographer®](#)

- Apr 25 - 29 Kuala Lumpur
- Apr 25 - 29 Trinidad
- May 6 - 10 West Windsor

#### [Level III Certified Infrared Thermographer®](#)

- Mar 14 - 16 West Windsor
- Sep 19 - 21 West Windsor
- Dec 5 - 8 Trinidad

[Full 2022 Schedule](#)

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Capacitors are wound devices that are electrically connected between potential and ground. Capacitors used for power factor correction are generally encased in painted, rectangular steel canisters and often have two equal sized bushings for electrical connections. In a three-phase circuit, there may be several capacitors connected to each phase.

The most common failures of capacitors are loose/deteriorated bushing connections, open circuits due to internal winding failure, and open supply circuits. When inspecting capacitors, be sure to:

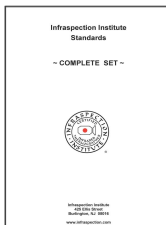
- Visually inspect capacitor bodies. Capacitors should not be misshapen/swollen.
- Thermographically inspect capacitor bodies. Capacitors should be warmer than ambient air temperature and exhibit equal temperatures across all phases.
- Check bushing and wiring connections for hotspots.

Any thermal anomalies detected should be investigated and corrected as soon as possible. Capacitors operating at ambient temperature should be corrected immediately as imbalanced capacitance can be more detrimental than having no capacitors at all.

### [More Information](#)

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## Infraspection Release Updated Standards



Infraspection Institute has announced the release of updated versions of its popular series of Standards for Infrared Thermography. All twelve Standards have been revised to keep abreast of technological and industry changes.

Jim Seffrin, Director of Infraspection Institute, states, "We are very excited about the release of our updated Standards. During the past couple of years, there have been significant changes within the infrared inspection industry especially with thermal imaging equipment. The 2022 version of our Standards addresses these changes and provides clear and concise procedures for the proper use of thermal imaging equipment and outlines best practices for infrared inspections."

Recognizing the need for standardized procedures, Infraspection Institute began publishing guidelines for thermography in 1993. Since their initial publication, Infraspection Institute guidelines have been adopted by hundreds of companies worldwide and incorporated into documents published by recognized standards organizations such as ASTM International (ASTM) and the International Organization for Standardization (ISO). Beginning in 2007, Infraspection Institute guidelines were updated and renamed as standards to reflect their industry-wide acceptance and the best practices they embody.

Seffrin adds, "Our newly revised Standards represent the work of many practicing thermographers and other experts. We wish to thank them for their valuable contributions in helping us to respond proactively to thermographer needs and advance our industry once again. We encourage every practicing thermographer to add a copy of [Infraspection Standards](#) to their reference library."

## Upcoming Conferences

Infraspection Institute invite you to see us at the following upcoming conferences. Be sure to stop by and say Hello!

### [Reliable Plant](#)

July 25 - 28, 2022  
Orlando, FL

### [Thermal Imaging Conference](#)

September 19 - 22, 2022  
South Lake Tahoe, NV

### [SMRP Conference](#)

October 17 - 21, 2022  
Raleigh, NC

### [IR/INFO Conference](#)

January 15 - 18, 2023  
Orlando, FL

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## Links of Interest

[IRINFO.ORG](#)

[The RAM Review](#)

[TI-Reporter.com](#)

[IRFeverScreen.com](#)

[Electric Power Reliability Alliance](#)

[More Information](#)

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## Save Big on TI Reporter™ Software

In addition to streamlining your infrared report writing, now you can save even more with TI Reporter™ software. For a limited time, annual subscriptions are available at a 15% discount versus our monthly pricing.



Combining cloud technology with state-of-the-art features, TI Reporter™ is the world's first cloud-based thermography reporting software that works with all thermal imagers. Reports can be generated quickly and easily from one's office or while in the field. Because it is cloud-based, TI Reporter™ works with all computer operating systems and there is no need to install any type of program or software onto your computer.

Written by practicing thermographers, TI Reporter™ contains preformatted templates for a wide variety of infrared inspection applications including, but not limited to: electrical systems, mechanical systems, building envelopes, flat roofs, underground piping, and steam systems. TI Reporter™ automatically calculates temperature limits for electrical and mechanical equipment and can provide cost savings reports. The software is designed for in-house thermographers as well as thermographic consultants.

[More Information](#)

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## Thermography's Academy Award



[Become an Infraspection Institute Master Thermographer®](#)

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