

Volume 8 Issue 7 - July 2019

Director's Message



It's hard to believe how much thermal imaging has become ingrained into our daily lives. Once an obscure technology, thermal imaging now appears on a near daily basis in print media, in movies, and on television.

While watching a Philadelphia area evening news broadcast on May 30, I couldn't help but notice a black and white video that I instantly recognized as footage from an airborne thermal imaging system. Perhaps it was the drama at the heart of the story that caused the reporter to never mention that a large portion of the report contained thermal imagery.

On May 29, an intense and sudden squall caused a private sailboat to capsize in the Atlantic Ocean approximately 65 miles off the New Jersey coast. For the next three hours, the boat's occupants and owners, Heidi Snyder and Peter Bailey, clung to the hull of the overturned boat awaiting rescue in chilly six-foot seas and near total darkness.

Upon receiving a distress signal from the boat's emergency radio beacon, the US Coast Guard deployed air and surface assets to the scene where the couple were found and hoisted into a rescue helicopter. Amazingly, much of the rescue was recorded by a thermal imager mounted on one of the rescue aircraft. The couple were then taken to a local hospital for treatment.

As a practicing thermographer, it gives me a sense of satisfaction when proper use of thermal imaging technology helps to ensure the safe operation of machinery, structures, or systems. I am especially proud of our technology when it is used to help save lives.

Thank you to the US Coast Guard personnel who carried out this amazing rescue and to all Coast Guard members whose tireless service help to protect our waters and those who sail upon them.

[Watch the Video](#)

Upcoming Courses

[Level I Certified Infrared Thermographer®](#)

- Jul 8 - 11 Seal Beach
- Jul 22 - 26 West Windsor
- Jul 22 - 26 Montreal
- Aug 5 - 9 Orange
- Aug 12 - 15 Seal Beach
- Aug 12 - 16 Toronto
- Aug 12 -16 Vancouver
- Aug 26 - 30 Kuala Lumpur
- Sep 2 - 6 Sydney
- Sep 16 - 20 Houston
- Sep 23 - 27 Gold Coast
- Oct 7 - 11 West Windsor
- Oct 7 - 11 Melbourne
- Oct 14 - 18 Kuala Lumpur
- Oct 14 - 17 Henderson
- Oct 28 - Nov 1 Auburn

[Level II Certified Infrared Thermographer®](#)

- Jul 22 - 26 Kuala Lumpur
- Sep 16 - 20 West Windsor

[Level III Certified Infrared Thermographer®](#)

Tornado Safety

With the onset of warm weather, tornado season has arrived. In an average year, tornadoes in the US cause 80 fatalities and 1500 injuries. Knowing what to do before and during a tornado is crucial for survival.



Tornadoes are nature's most violent storms. Spawned from powerful thunderstorms, tornadoes can cause fatalities and devastate a neighborhood in seconds. A tornado appears as a rotating, funnel-shaped cloud that extends from a thunderstorm to the ground with whirling winds that can reach 300 miles per hour. Damage paths can be in excess of one mile wide and 50 miles long. Every state is at some risk from this hazard.

Some tornadoes are clearly visible, while rain or nearby low-hanging clouds obscure others. Occasionally, tornadoes develop so rapidly that little, if any, advance warning is possible. The best defense against tornadoes is to be alert to weather conditions and be ready to seek shelter.

Before a tornado, be alert to changing weather conditions.

- Listen to [NOAA Weather Radio](#) or to local newscasts for the latest information
- Watch for approaching storms
- Know the danger signs: dark, often greenish sky; large hail; large, dark, low-lying or rotating clouds; loud roar, similar to a freight train

If you see an approaching tornado or are under a tornado WARNING, seek shelter immediately.

- If you are in a structure, go to a pre-designated shelter area or the center of an interior room on the lowest building level. Get under a sturdy table and use your arms to protect your head and neck. Do not open windows.
- If you are in a vehicle, get out immediately and go to the lowest floor of a sturdy, nearby building or a storm shelter. Mobile homes, even if tied down, offer little protection from tornadoes.
- If you are outside with no shelter, lie flat in a nearby ditch or depression and cover your head with your hands. Beware of flying debris and the potential for flooding.

[More Information](#)

IR Inspections of AFCI Devices

An Arc Fault Circuit Interrupter (AFCI) is an advanced type of electrical circuit breaker that automatically opens the circuit it protects when it senses a dangerous electrical arc. Designed to

- Sep 23 - 25 West Windsor
- Dec 2 - 4 Melbourne

[Full 2019 Schedule](#)

Upcoming Conferences

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

[Thermal Imaging Conference](#)

October 3 - 6, 2019
Irvine, CA

[SMRP Conference](#)

October 7 - 10, 2019
Louisville, KY

[IR/INFO Conference](#)

January 19 - 22, 2020
San Antonio, TX

[Ultrasound World](#)

May 2020
Clearwater Beach, FL

Links of Interest

[IRINFO.ORG](#)

[NACBI](#)

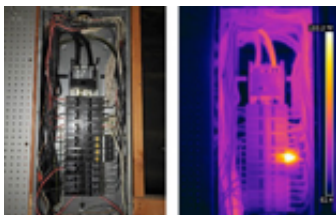
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help prevent electrical fires, an AFCI can distinguish the difference between electrical arcs caused by defective equipment and those associated with the normal operation of devices such as light switches.

In order to monitor for dangerous electrical arcing on a circuit, AFCI devices have electronic circuitry built into them. This circuitry can cause the body of the AFCI to run several degrees warmer than ambient temperature. Depending upon the settings of your thermal imager, these devices may show a marked contrast to their surroundings.



This thermogram shows three of four AFCI devices operating at ambient temperature. These devices had failed and were no longer protecting against arc faults. (Images courtesy Houston Thermal Inspections and Infrared Imaging)

When thermographically inspecting AFCI devices, be sure to inspect the line and load side connections at the AFCI device as well as the neutral bus bar connection for the subject breaker. Should you find an AFCI device that is operating close to ambient temperature, it is likely that the internal circuitry has failed making the device incapable of protecting against arc faults. Such devices should be further tested and replaced should they be found defective.

[More Information](#)

Call for Papers for IR/INFO 2020

Infraspection Institute are pleased to announce that our annual Advanced Training Conference, Technical Symposium and Technology Expo, IR/INFO 2020, will be held January 19 – 22, 2020 in San Antonio, Texas. Now in its 31st year, IR/INFO features four days of networking, learning, and fun in a relaxed, yet professional, family atmosphere.



We are presently seeking papers and presenters for IR/INFO 2020. Invited topics include, but are not limited to: safety, emerging applications, building sciences, related NDT, case histories, as well as tips and tricks.

Presentations are typically 20-25 minutes with 5 minutes for questions and answers with the audience. All papers and presentations will be published in the IR/INFO Conference Proceedings. The deadline for abstract submissions is July 31.



[More Information](#)

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