

News and Information for Professional Thermographers

Volume 14 Issue 7 - July 2025

Director's Message



On the 4th of July, Americans will celebrate Independence Day – a national holiday that is distinctly our own.

Independence Day celebrates the adoption of the Declaration of Independence on July 4, 1776, by the Second Continental Congress. By

declaring that the thirteen American colonies regarded themselves as a new nation and no longer part of the British Empire, the United States of America was born. Already at war with Great Britain, it would not be until the end of the Revolutionary War in 1783 that the survival of the United States was assured.

Americans often celebrate Independence Day by hosting or attending picnics or barbecues with friends and relatives. Many attend patriotic parades and ceremonies during the day and public fireworks displays in the evening. American flags and decorations of red, white, and blue are found everywhere.

As you celebrate the holiday, I would invite you to take a moment to reflect upon the genesis of our nation and the principles upon which it was founded. Take a moment to reflect upon the freedoms that you enjoy along with the sacrifices of those who made such freedom possible and those who help to ensure its continued existence.

May you enjoy a safe and Happy Independence Day!

Is Distance Learning Right For You?

Advancements in technology have reshaped traditional approaches to education. Students are now able to study a wide variety of subjects, including thermography, from nearly anywhere in the world.



Distance learning may be defined as any situation where the student and the instructor are in physically separate locations. Such instruction may be live or pre-recorded and can be delivered via video presentations, remote teleconferencing, and web-based presentations.

Distance learning provides several advantages over the traditional

Upcoming Courses

Online Distance Learning

<u>Level I Certified Infrared</u> <u>Thermographer</u>[®]

- Jul 7 10 Brisbane
- Jul 9 10 Brisbane *
- Jul 7 11 Salt Lake City
- Jul 14 17 West Windsor
- Jul 14 17 Rosharon
- Jul 21 25 Vancouver
- Jul 21 25 Quezon City
- Aug 4 8 Colorado Springs
- Aug 4 7 Melbourne
- Aug 6 7 Melbourne
- Aug 11 14 Rosharon
- Aug 11 15 Kuala Lumpur
- Aug 18 22 Cheyenne
- Aug 18 -22
 Guatemala City
- Aug 18 21 Kuala Lumpur
- Aug 25 28 Sydney
- Aug 27 28 Sydney *
- Aug 25 29 San Jose
- Sep 8 12
 Albuquerque
- Sep 15 18
- Rosharon Sep 22 - 26 Bosie
- Sep 22 25 Adelaide
- Sep 24 25 Adelaide
- Sep 22 25 Perth
- Sep 24 25 Perth *
- Sep 22 26 Quezon City
- Sep 22 25 Sarawak
- * Flexible Learning

classroom setting. Chief among these are the elimination of travel costs, 24-hour availability, and increased convenience in scheduling. The availability of distance learning courses for thermography is particularly beneficial to thermographers with hectic schedules.

When selecting distance learning courses for thermography, be sure to determine the following:

- How and when course is delivered
- Length of course and curriculum
- To which standards does course curriculum conform
- Are experienced instructors available to answer questions
- Does course qualify toward thermographer certification
- · Experience of training firm in providing instruction

Infraspection Institute offer the world's most comprehensive inventory of distance learning courses for thermography. Courses include: Level I, Level II, and Level III thermography as well as applications courses and industry-specific courses. All courses are ASNT and ISO-compliant and are taught by Level III Infraspection Institute Certified Infrared Thermographers® each having over 40 years' experience.

More Information

Defining Ambient Temperature



Ambient temperature is a term which appears in nearly all thermographic reports. However, many thermographers define ambient differently. Some define it as room air temperature while others define it as the temperature inside of the component

enclosure.

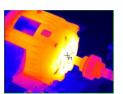
According to the IEEE, for electrical components ambient temperature is the environmental temperature immediately surrounding the subject component. For devices located within enclosures, this is the temperature within the enclosure while it is closed and operating. For components in free air, it is the temperature surrounding the component.

Infrared inspection of electrical distribution systems is one of the many topics covered in the Level I Infraspection Institute Certified Infrared Thermographer® training course. For information on thermographer training or to obtain a copy of the *Standard for Infrared Inspection of Electrical Systems & Rotating Equipment*, visit us online or call us at 609-239-4788.

More Information

Measuring Motor Temperatures

Measuring motor temperature is often a challenge since electric motors differ widely in their design and construction. While many have suggested measuring the motor casing along the stator, this method does not work well for motors that are fan cooled or



exposed to external air currents. For uncooled motors, this approach can produce varying temperature values depending upon

<u>Level II Certified Infrared</u> <u>Thermographer</u>®

- Jul 14 17 Brisbane
- Aug 4 8 San Pedro Sula
- Aug 11 15 Quezon City
- Sep 1 5 Panama City
- Sep 15 18 West Windsor

<u>Level III Certified Infrared</u> <u>Thermographer[®]</u>

- Sep 22 24 West Windsor
- Nov 10 12
 Melbourne

Full 2025 Schedule

Upcoming Conferences

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

Vibration Institute

August 6 - 8, 2025 Newport News, VA

SMRP Conference

October 6 - 9, 2025 Fort Worth, TX

IR/INFO Conference

February 1 - 4, 2026 Orlando. FL

NETA PowerTest Conference

March 2 - 6, 2026 Nashville, TN the location of the subject temperature readings.

In 1997, a research project led by Infraspection Institute utilized instrumented motors in a controlled environment to determine the effect of excess force on installed motors. One of the primary goals of this research was to identify a location for collecting reliable temperature data.

From our research it was found that measuring the exterior of the motor bellhousing within 1" of the output driveshaft consistently produced temperatures that were within 1 to 2 C degrees of the motor windings and the output side bearing assembly. Temperatures taken at the bellhousing were especially useful for fan-cooled motors since this area was unaffected by convective cooling from the fan.

When measuring motor temperatures, keep the following in mind:

- Make certain that all thermometers are within calibration and used properly
 - Motor temperature will vary with load and ambient temperature
 - · Be certain to record both along with motor temperature
- Elevated temperatures can be caused by electrical or mechanical defects within the motor and/or defective installations

Motors with elevated temperature should be further investigated for cause and repaired or replaced accordingly.

More Information

Call for Speakers for IR/INFO 2026



Infraspection Institute are pleased to announce that our annual Advanced Training Conference, Technical Symposium and Technology Expo, IR/INFO 2026, will be held February 1 - 4, 2026 in Orlando, FL.

Now in its 36th year, IR/INFO features four days of networking, learning, and fun in a relaxed, yet professional, family atmosphere. We are presently accepting papers and presenters for IR/INFO 2026. 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

Run With the Big Dogs

Links of Interest

IRINFO.ORG

TI-Reporter.com

Thermographer Directory

NORMI.TV

A-Rent



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