

## Welcome

Welcome,  
This is our first newsletter of the new decade and I have been tinkering around with the newsletter format a bit to improve readability (and make it easier to build as well)! I hope you like it.

Ever wonder about the marriage of thermal imaging and solar cell diagnostics? Our feature article this month by Markus Tarin from MoviTHERM and Ross Overstreet of FLIR Systems will open your eyes to some new techniques to analyze them.

As usual we have our Message Board posts, News items, Videos, and our monthly Brainteaser for you to solve.

Enjoy,

Gary Orlove,  
Editor and Publisher



## Links of Interest

[Infrared Training Center](#)

[ITC On-Demand Training Portal](#)

[Course Calendars](#)

[ITC Web Store](#)

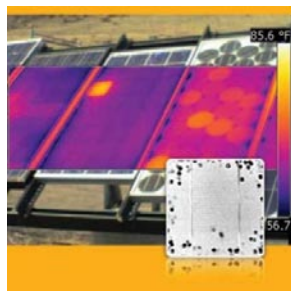
[InfraMation IR Conference](#)

[IR InformIR Blog](#)

## Thermography & Solar Cells

By Markus Tarin, MoviTHERM and Ross Overstreet, FLIR Systems

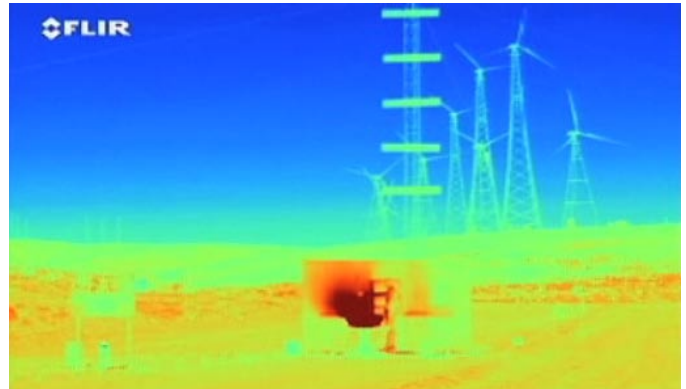
Lock-in techniques are overcoming the limitations of conventional thermal imaging to greatly increase the sensitivity and image resolution of thermography used in PV cell defect detection...



[Read the article](#)

## Video of the Month

Will throwing a cup of water onto a grease fire create a 30-foot fireball? Adam Savage and Jamie Hyneman of Mythbusters are on the case. Click the image to see the result.



## IR News you can Use

Straight from the World Wide Web, here is what's going on in the world of infrared thermography.

### [Public light art moves into Vancouver](#)



Straight.com - [Robin Laurence](#) - Dec 17, 2009

Through an ingenious coupling of **thermography** and digital technology, the images are gathered from the site itself: the heat that emanates from people ...

### [Giving The Gift Of Efficiency This Holiday](#)



WPTZ.com - Dec 16, 2009

One of the many weapons Woltner uses is an **infrared camera** -- it helps find areas where heat is seeping out of homes. Woltner said 15 people have signed up ...

### [Suspect captured using some high-tech help](#)



WWAY NewsChannel 3 - Dec 17, 2009

The pilot of the chopper picked him up with the **infrared camera** and was able to guide officers to the suspect back in the trees. The suspect was armed with ...

## ITC Message Board Posts

Here is a selection of recent new threads by HIR Community members. Feel free to click the links, see the responses, and post your own response if you like.

### [RAT Measurement](#)

I am new to thermography. Can someone explain to me the proper outdoor RAT measuring for the average residential structure? In daytime I have been using the air temp, and air or building temp for night time measurements. Can your explanation include clear and cloudy night's sky, and any other information you deem important.

### [Process heater scanning](#)

I was wondering if there was anyone in the forum who is in this area of work? I am currently about 4 months into it. I am level 1 certified. I work in a refinery as a Heater Specialist with 2 PM390s. One has a Hughes array which I use with a flame filter for my heater scan mainly. I am having a hard time judging temps/emissivity due to scale buildup, t-reflect, long angles, etc.

I was just wondering if there was anyone here with knowledge in this area and willing to share any tips or recommendations for better analysis.

### [Close up shots](#)

I need to take some thermograms of some electrical panels in a small room and can't get back far enough to take the whole picture. How have you dealt with this issue out in the field? The best thing I can come up with is to take it in multiple pictures but putting that in report form could be confusing for the customer. If I cropped and made them into one picture the chance it would be pieced together and look right would be slim to none. My camera is a P640.

This also brings me to another issue. How do you monitor the ambient temperature and set the Treflect? I've been using a piece of cardboard that was waved in the air to get a ambient reading and crinkled tin foil for the Treflect. With that said is there a more professional way to do this. That's not something I really want to do in front of a customer, though it's reliable.

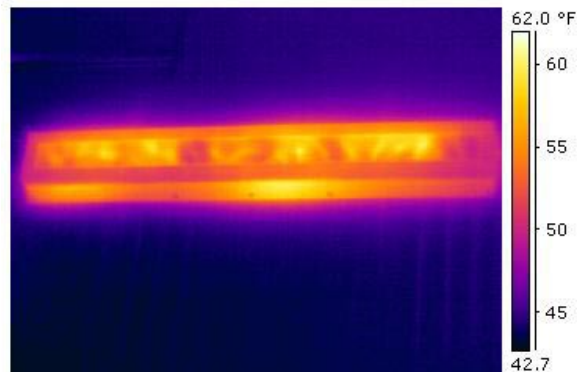
### [Roof scans winter conditions](#)

I have been requested to perform an infrared roof moisture survey on a builtup roof with fiberglass insulation installed over a steel deck. The roof has leaked in the past so we are assuming there will be wet insulation. The warehouse is not heated. Qst.: During freezing weather conditions, will the wet insulation freeze and not show a thermo image?

And of course if **YOU** have a question or want to start a discussion on a topic, we would love to hear from you. Just post a new thread on a [message board](#).

## QUIZ? Brainteaser of the Month

Here is this month's brainteaser. Readers who e-mail us a correct explanation are entered into a drawing to win a prize. Please put "Brainteaser" as the subject of the message.



Click [here](#) to e-mail your guess

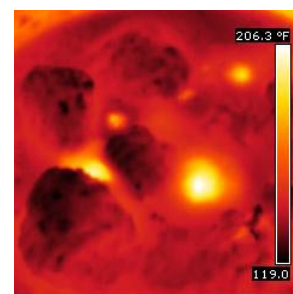
Do you have an interesting image that you think would challenge other thermographers? If so please [email](#) me your image (preferably in native .img, .jpg, .tif, .tgw, or .tmw format) with an accompanying visible photo and explanation. If your image is used, you receive a gift as well.

## 🧠 Last Month's Brainteaser

Last month's brainteaser are photos of Brian Robillard's wife's delicious meatballs and sauce as they were heated up on the stovetop. Looks yummy!

We received a total of 50 guesses last month and only one correct guess!

Congratulations to our winner John Cassell, and to our thermogram contributor, Brian Robillard. They both win the revered ITC low e coffee mug.





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