

# Wirelessly monitoring electrical data on pro football's biggest stage

## Application Note

Thermal images. Temperature. Voltage and current readings. When working to ensure uninterrupted electrical services at a major sporting event, all of these data points are as important to technicians as statistics and replays are to the head coaches of the opposing teams. Prior to a recent Super Bowl, technicians responsible for telecommunications and Internet services describe how Fluke tools, wirelessly enabled with Fluke Connect™, help them manage such a large-scale a task.



**“ We began using Fluke Connect™ some time ago in high-power arrangements where we can monitor the equipment from a safe distance.”**

—Bill Lipscomb  
President, WBL Services

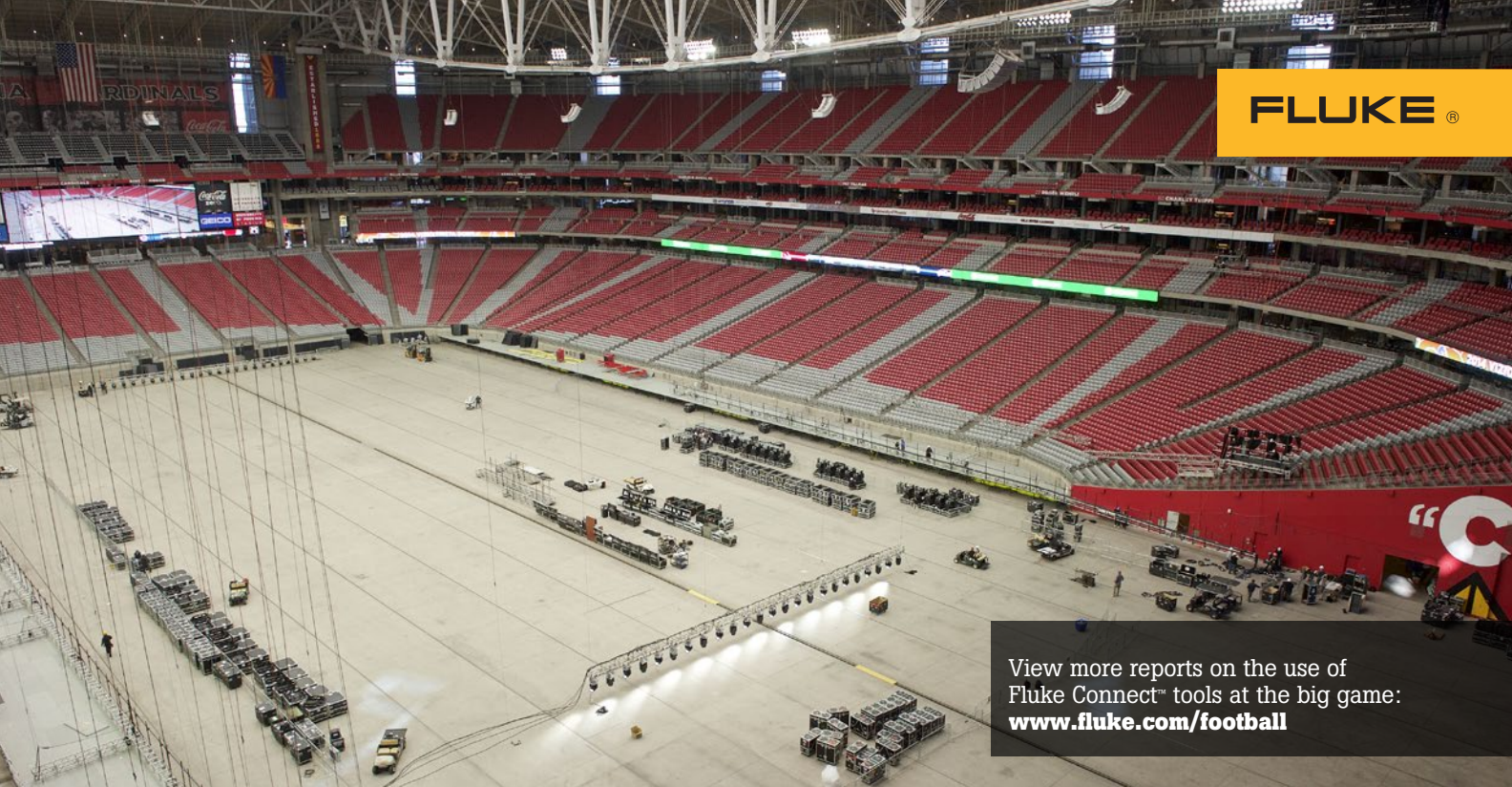
When asked to explain how events unfolded during an unusual play, football coaches have a standard reply: “We’ll have to look at the tape.”

When football plays go awry—a running back is tackled in the backfield, a quarterback is sacked or gives up an interception—coaches go to the videotape to see what happened. Pouring over game film, to see how players on both sides of the ball responded to specific situations, is a big part of a modern coach’s job.

For electrical engineers, electricians and technicians, the equivalent of game film is data captured by test and measurement tools. Among the data points are thermal images, temperature, voltage and current readings. All are important to capture both on the spot and over time.

At University of Phoenix Stadium in Glendale, Ariz., site of Super Bowl XLIX between the New England Patriots and Seattle Seahawks on Feb. 1, 2015, Seattle-based WBL Services oversaw the setup and management of telecommunications and Internet services for thousands of media partners—TV and radio broadcasters and print media—both at the stadium and at media row in the Phoenix Convention Center.

“We come in and do a complete overlay network,” said Bill Lipscomb, WBL Services president. “That includes all the fiber, all the broadcast infrastructure, all the Internet, network Ethernet and telephone system. And we put that on our own power as well so we are total independent of the stadium infrastructure.”



View more reports on the use of Fluke Connect™ tools at the big game:  
[www.fluke.com/football](http://www.fluke.com/football)

## Fluke Connect™ at the big game

WBL captured data on incoming power during the big game using an a3001FC iFlex® Module as well as the Fluke Connect™ app on phones. It monitored the power in real time and captured data for later reference—just in case something went wrong.

Real-time data tells them if there are dips or spikes in current that could impact the phone or Internet services in the press box or outside the stadium.

If an Internet bank goes down in a press booth, for example, WBL could check the current readings logged in the Fluke Connect™ app to see if there was a problem with the power supply, rather than the Ethernet connection. Keeping a log over time helps them at other venues by establishing a baseline on current levels.

At any Super Bowl, all electrical workers are on alert to guard against what happened in New Orleans on Feb. 3, 2013, where a power disruption caused a blackout in the stadium after Beyoncé performed at halftime.

“It’s quick, it’s easy,” Shane Conner, a WBL contractor, said of Fluke Connect™. “I like that you put it on, push a button and you’re good to go. Because when we’re out here we have a lot of work to do and we don’t have a lot of time to get it done.”

And if the power does go out there is a record.

“I can easily send them that Fluke report. It’s good to go and it has the time stamp, date stamp. We can say we provided you what we said we would provide. And after what happened in New Orleans that’s a big concern for everybody.”

## Wireless access boosts safety

Lipscomb and his crew also like the safety aspects of connected tools. “We began using Fluke Connect™ some time ago in high-power arrangements where we can monitor the equipment from a safe distance,” Lipscomb said.

“The wireless stuff to me is all about safety,” Conner said. “Today with the NFPA 70E and all the OSHA requirement out there, the wireless technology is very important to contractors

because, for most of us, putting on PPE or having a 40-calorie suit is a very difficult thing to do.

“We drive out here on golf carts, we walk up to these pieces of equipment and put our meters on the outside. We don’t have to get into the internal mechanisms of the equipment. So I can walk up, clamp it on, synch with my phone, walk away and then I can get back on my laptop and get all the data I need. I really never have to come back out here again.”

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**Fluke Corporation**  
 PO Box 9090, Everett, WA 98206 U.S.A.

**Fluke Europe B.V.**  
 PO Box 1186, 5602 BD Eindhoven, The Netherlands

**For more information call:**  
 In the U.S.A. (800) 443-5853 or Fax (425) 446-5116  
 In Europe/M-East/Africa +31 (0)40 267 5100 or Fax +31 (0)40 267 5222  
 In Canada (800)-36-FLUKE or Fax (905) 890-6866  
 From other countries +1 (425) 446-5500 or Fax +1 (425) 446-5116  
 Web access: <http://www.fluke.com>

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