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Law Enforcement Edition

Bullard® Thermal Imaging Newsletter

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TacSight Enables Fugitive Capture and Weapon Retrieval

The Fairfield County officers who apprehended the shooter included (left to right) Dep. Ryan Johnson, Sgt. Chris Childers and Cpl. Bill Dove

Fairfield County, South Carolina (pop. 22,000) – Cpl. Bill Dove of the Fairfield County Sheriff's Office was dispatched to a disturbance call on Jan. 4 at about 9 p.m., following up on a report that a resident in a rural neighborhood had discharged a firearm into the air. When Cpl. Dove and Dep. Ryan Johnson arrived, neighbors reported that the man had fled into the nearby woods. Officers found shotgun shell casings in the yard.

Cpl. Dove called Sgt. Chris Childers, who was working about 20 minutes away in the east zone of the county, to request that he come to the scene with the Bullard TacSight thermal imager he was carrying in his vehicle.

> **"I approached the woods with the TacSight and almost immediately spotted something that looked real bright, like a bright light."**
> Sgt. Chris Childers

"I approached the woods with the TacSight and almost immediately spotted something that looked real bright, like a bright light," Sgt. Childers said. "I stopped there, and I gave voice commands to Johnson and Dove to lead them to where the man was hiding, about 35 to 40 yards into the woods."

Cpl. Dove and Dep. Johnson approached the woods under the cover of flood light from their handheld flashlights, using bushes and trees to protect their approach. When they spotted the suspect, they told him to put his hands in the air and walk backward toward the sound of their voices. The man refused to tell officers where he had stashed his weapon.

After the man was handcuffed, Sgt. Childers used the TacSight to scan the ground where he had been hiding. "About ten yards away from that spot, I saw two bright objects on the screen, in a bushy area covered with a lot of twigs and undergrowth," he recounted. "I could see a very distinct outline of two weapons on the screen. The metal barrels were warmer than the wood handles."

Without the help of the thermal imager, Sgt. Childers says officers would have called in a four-man bloodhound team to ferret out the suspect. "By the time the bloodhounds were there, we would have spent 30 to 40 minutes waiting. And we would have brought at least four more people to the scene," he explained.

Sgt. Childers says the suspect asked him how officers had found him so quickly, since he had removed his white shirt to avoid being detected. "What he didn't realize was that by exposing his skin to us, he made himself even more visible to us on the thermal imager," Sgt. Childers quipped. "When we told him that we found him by using infrared technology, he thought we were just messing with him."

TACTICAL TIPS

Realizing that they were at a tactical disadvantage in this scenario, responding officers from the Fairfield County Sheriff's Office requested the TacSight in an early effort to place the odds back in their favor. Using the TacSight allowed Sgt. Childers to observe the area without projecting a light beam into the woods, so initially the suspect was unaware of the presence of the officers.

Though Cpl. Dove and Dep. Johnson knew where the man was hiding after they spotted him with the TacSight, their utilization of available cover in their approach shows that they did not abandon the basics of solid police work. After the suspect was in custody, Sgt. Childers again used the technology to detect the evidence of the crime. TacSight eliminated the need for and cost of additional personnel being called to the scene.

The suspect removed his shirt in an effort to camouflage himself. This type of behavior can be effective against night vision since both our eyes and night vision rely on light. Because the TacSight only sees heat, the suspect would have shown up with or without his shirt on. Score one for the good guys!

TacSight Aids ERU Response to Uncertain Situation

Lexington ERU members demonstrate the tactics they used to move into the apartment on Feb. 3, with the aid of thermal imaging

Lexington, Kentucky,(pop. 250,000) – At 9:30 p.m., on Feb. 3, patrol officers with the Lexington Police Department responded to a call from a three-apartment residence in an inner city neighborhood. Neighbors who lived in the other two apartments within the structure had heard two people arguing in the second-floor apartment, followed by several shots, then silence. Officers knocked on the door, yelling to the suspect, and they didn't get a response. Considering the unknown nature of the scenario, they set up a perimeter and called in the Emergency Response Unit.

When the ERU arrived, one of the members used a bullhorn from the outside, with no response. They then set up a ladder at an open window of the suspect's apartment. Under sniper cover, Lt. Rodney Sherrod took the Bullard TacSight up the ladder and reached it in front of the window, with the display turned off (via the TacSwitch). Unit commander Asst. Chief Kevin Sutton used a handheld Mobile Link wireless receiver to monitor the transmitted TacSight imagery from the ground. The information he gathered about the layout of the residence helped him guide ERU members in the next step of the search.

"I could see the layout of the room, so I knew where the team would need to look when they entered," Asst. Chief Sutton said. "When I didn't see an image of a person, the entry team was able to enter the apartment and set up a secure location to operate from."

Two teams of five entered the ground floor of the house and climbed the stairs to enter the second floor apartment from the inside, using ballistic shields as cover. Lt. Sherrod, who was lined up third in the first stack, used the thermal imager to scan each room prior to entry.

"Instead of making a dynamic entry, the TacSight allowed the team to move into the first room fairly secure, then move through the house methodically," Asst. Chief Sutton recounted. "They used it to scan and secure their position as they moved."

After the main area of the house was secured, officers pulled the attic ladder. Lt. Sherrod reached the thermal imager into the attic, using a methodical approach to scan 360 degrees of the room, without actually entering it. Again, the transmitted imagery was monitored from below, via the handheld Mobile Link receiver. Ultimately, officers did not find the shooter.

ERU Coordinator Officer Pike Spraggins explained how the response would have been handled if a thermal imager hadn't been available. "Before entering, our normal procedure would have been to spend two hours with the bullhorn," he explained. "Then, we would have beaten on the door. And if we still hadn't received a response, we would have had two alternatives. First, we could have breached the apartment, not knowing what to expect. Or we would have used chemical munitions to drive the suspect out."

Spraggins says the TacSight allowed the ERU to manage the incident less expensively and with less risk to officers. "We didn't have to use any assets, and since the team was able to confirm the suspect was not in the rooms they were entering, it made the situation safer to enter," he said. "When we had completed our search, the other tenants could return to their apartments, with no property damaged."

TACTICAL TIPS

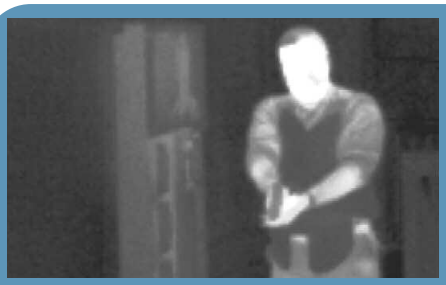
The response to this incident befits the expertise of the world class Lexington ERU team. Officers set up their response, guided by standard operating procedures and tactics, then selected the right complement of tools for this operation.

Light beams would have been a dead giveaway to a bad guy that the ERU was moving through the apartment. The team used the TacSight to inspect areas prior to entry, which enabled silent, unannounced movement. Positioning the thermal imager third in the stack allowed the first two officers to work the shield and cover fire should something go awry. The use of thermal imaging to enhance officer safety is the primary benefit here; however, secondarily, the savings in costs of manpower, chemical munitions and damage to the apartment building cannot go unnoticed.

Send Us Your Story!

If you would like to tell us about an incident in which TacSight has made a difference in your work, visit www.thermalimager.com/Tacsight, and click on "submit your story." Selected stories will be featured in an upcoming issue of this newsletter.

If TacSight played a critical role in helping officers in your department 1) apprehend a felon or suspected felon, or 2) save the life of a civilian or a fellow officer, your department may qualify to be honored through SOAR (Save Or Apprehension Recognition), a new local recognition program sponsored by Bullard.



The image above shows what type of personal information can be gathered by a thermal imager. Given this image, basic descriptors could include height, weight, build and basic clothing description. We can tell, for instance, that this (likely male) individual is wearing pants and a long-sleeve, v-neck shirt with the

IMAGE INTERPRETATION CORNER

sleeves pushed up around the elbows, however we cannot determine things like race, age or hair color. We can plainly see that this person is holding a gun in a combat grip and is wearing soft body armor (SBA). SBA can be seen, whether concealed or not, because it interferes with the thermal signature of the person's body heat. The immediate question that comes to mind is: "Suspect or other responding officer?" While it does happen, suspects rarely wear SBA. Officers, on the other hand, usually do. If your thermal imager produced this image, how would you respond?

TI ACADEMY

I have a great job! I travel around the world training and educating law enforcement personnel on the benefits of thermal imaging and its many applications. I meet lots of interesting people, and I have the opportunity to get "down in the trenches" with many of America's finest. This job has exposed me to officers ranging from large US Government departments to smaller, more rural departments that employ just a few officers. I believe I gain more than I leave behind, and I thoroughly enjoy the face-to-face contact with those in the law enforcement community.

At the beginning of every class, I ask two questions: Who has had exposure to thermal imaging, and where did that exposure come from? Inevitably, one or two officers have had some exposure; equally predictably, that exposure came from the fire service.

Let me be the first to say it: firefighters are in the thermal imaging game for an entirely different reason than police officers. When firefighters think thermal imaging, they think HEAT. A firefighter always has that picture of a structure fire in his head, and thermal imaging quickly evolves into heat imaging; however, with law enforcement, we want thermal imaging to literally mean thermal imaging.

In law enforcement we need to stick to the idea that colder and warmer are equally important. Law enforcement operations typically occur in an ambient temperature range, a more normal range where small temperature differences are important. This is the temperature difference between a piece of evidence and the grass in which it lies, not large thermal events that the fire service imagines. In law enforcement operations, we're not concerned about "heat signatures" or "heat measurement;" we're concerned about what is thermally visible.

With this usage difference in mind, Bullard engineers created the TacSight series. TacSight is not a fire imager wrapped in a black package; rather it is a thermal imager designed specifically for law enforcement use, but with the same outward design and durability to which the fire service has become accustomed.

A fire service imager creates the greatest image detail when it is operating above 300°F. Below this temperature, the image is adjusted to produce a picture that will appear the same at ambient temperatures as it does in fire conditions. Because of this feature, a fire service imager can "see" well into the 1,000°F range. The tradeoff is a slight loss of detail and an increase in signal noise at ambient temperatures. This is true for all fire service imagers, regardless of manufacturer.

TacSight was designed to create its clearest, most detailed image at normal environmental temperature ranges. This means that TacSight can easily detect warm objects (people can be detected at over 1,000 feet), but it can also resolve the thermal difference between a cinder block and the mortar that binds it. This level of sensitivity is only possible in a law enforcement imager; however, TacSight comes packaged in a water tight, dust-proof, impact resistant housing that protects it from whatever you can dish out. No longer will the imager need to be locked in a protective case and secured in the captain's office only to be used when the situation warrants; rather, portability and durability have brought that product to the front line where it can serve its ultimate purpose, which is to make the job of the police officer easier and much safer.

Hopefully at some point in my travels, our paths will cross. If they do, please introduce yourself. Share a story, ask a question, whatever. It is my job to educate, train and evangelize this technology in an effort to help you tip the odds in your favor. Remember that the playing field should always be tipped in your favor; as soon it is level, the bad guys will cheat in an attempt to win. They will always play outside the rules. With this in mind, we are always seeking new technologies that can help you gain the upper hand. After all, bad guys don't play fair... why should you?

Brad Harvey leads law enforcement training for the Bullard Emergency Responder Division. He has 15 years of experience in public safety as a firefighter, police officer, paramedic and instructor.

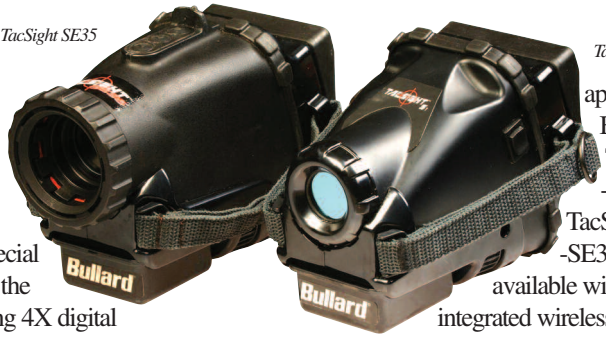
Own the Night with TacSight

Thermal imagers are powerful tools for enhancing officer safety and scene visibility. The image displayed on the screen of the infrared device gives the user an identifiable and reliable thermal picture of his surroundings by displaying relative differences in surface temperature. The picture is unaffected by light, clothing or inclement weather.

TacSight S1, the first Bullard thermal imager engineered specifically for law enforcement, is designed for simple operation and optimal flexibility in a range of applications. This expandable product allows law enforcement officers to configure a tool specifically to meet their individual job requirements.

A new addition to the Bullard TacSight™ line, the TacSight SE35 has enhanced features designed especially for surveillance applications, with the best available clarity in low thermal contrast conditions. Users can implement several special features of the SE35 with the touch of a button, including 4X digital zoom, image enhancement and reverse polarity.

TacSight SE35



TacSight S1

Both thermal imagers are compatible with a range of performance-enhancing accessories. These accessories include TacScope, an attachable monocular eyepiece; TacSwitch, which dims or shuts off the display for stealth operations; and TacPort, which enables the thermal imagers to be mounted for hardwire video-out in surveillance and monitoring applications. Both the TacSight -SI and TacSight -SE35 are available with a fully integrated wireless transmitter and portable receiving packages for remote monitoring and recording, including the MobileLink handheld palm receiver and the Mobile Command Center.

TacSight thermal imagers are used across all major applications of tactical, patrol, surveillance, investigation, and search and rescue. Both products qualify for assistance under Federal grant guidelines.

Focu$ on Funding

"You can't win if you don't play"; remember that popular marketing phrase for the money lottery games? Well, the same challenge applies to winning in the "lottery" of grants. If you don't play by making well thought-out and thorough applications, then you can't win. You already realize that no one is out there just trying to throw money at you, but that there IS money being given to departments all around you.

The key is that you have to ask for it, and you have to make your appeal in a more effective way than the other guys – the departments or agencies that may be applying for the same grant – because most of the grant programs out there are competitive in nature. Grantees are selected based on grantor perception of need and whether the prospect is deserving based on program criteria. If your needs and your representation of why you deserve the money or equipment are more compelling than the next guy, you win!

So again, the irony is that there IS money out there. Grant authorities WANT you to have this money. Many of these programs - especially those funded via federal budget - live or die on their success in getting money and equipment into the hands of the responders for whom these assets are intended. For 2006 alone, monies or assets available to law enforcement through federal grant programs include the following.

- **Law Enforcement Grant Program $400M**
- **Port Security $150M**
- **State Homeland Security Grants $1 Billion**
- **Commercial Equipment Direct Assistance $50M**
- **Urban Area Security Initiative $850M**

There are a number of basic but very important actions you can take to be successful in pursuit of any of these grants. The key here is that all of these – and most other grants, public or private – are looking for the same information. The format may vary, but the essentials are the same.

Know Your Department and Community. Have a firm grasp of the demographics; size of the department, number of paid officers, significant crime statistics, area patrolled (square miles), and general population are the basics.

Clearly Define Your Need. Be specific. What will you do with the money or equipment? What will you buy? How will you use it? How will this better arm you to solve the significant challenges within your department and community? A very important theme here is interoperability. More and more grants are emphasizing the requirement that an applying department be able to demonstrate how the acquired equipment will support interoperability with other responder entities, which might include a police department from another community, the local fire department, or other emergency management group.

Respond to the Grant Objectives. While most grants ask for the same general information, each one usually has a very distinct stated objective, whether it is to protect seaports, protect large urban areas, or respond to terrorist actions. Be sure to acknowledge that objective in your narrative. To win consideration, your defined need must line up with the grant objectives.

Here's a final tip: assemble all of this information NOW. Don't wait for that time-pressured application to hit your desk. Do the research and build the framework of common information early, and you will have it "at your fingertips" when that opportunity surfaces. Then "all" you will have to do is tailor it to the grant specific criteria. That way, you will have more time to go grant hunting, and you'll spend less time sweating the details!

Jeff Lord leads the new business development program for Bullard in the federal government and military markets and also advises law enforcement agencies on grant-based funding alternatives.

Small Community Tests TI in Patrol Operations

Chief Randy Creech of the Lewisburg Police Department

Lewisburg, Ohio (pop. 2,000) – Chief Randy Creech of the Lewisburg Police Department in west central Ohio was asked by Bullard to spend a month evaluating the use of TacSight in patrol work within this small community.

Throughout the month of January, night patrol officers used the TacSight S1 in routine patrol work, in tasks including monitoring tank temperatures in an anhydrous ammonia storage lot, watching for activity in the local cemetery and checking for vandals in the village park. While officers in the department have had several years of experience with light intensification equipment, this was their first introduction to the use of infrared technology in their work.

"With light intensification technology, you have to distinguish objects," Chief Creech pointed out. "For example, we can park in one driveway and see the whole cemetery from one vantage point. With night vision, we'd have to distinguish objects… there's a gravestone, there's a gravestone, there's a tree… With a thermal imager, as long as it isn't warm, it doesn't matter what it is. You don't have to visually identify things. We had a guy walk through the cemetery, and on the screen of the thermal imager, it was like he had a neon light on him."

Chief Creech, who also serves as a volunteer firefighter with the Lewisburg Fire Department, is familiar with the Bullard T3. "We've had the unit for about five years in the fire department, and we've found that nothing seems to hurt it. That makes the TacSight appealing as well, since we know it's so durable. I told the guys to throw it on the seats in their cars."

Chief Creech says it is his plan to purchase a TacSight for the department, either with grant funding or through the department budget. "Four full time and six part time night patrol officers used them, and all the guys said they absolutely want to have access to the TacSight on an ongoing basis," he said.