

THE EDUCATED CRIMINAL

By Mark Colborn, Dallas (TX) Police Department Helicopter Unit



Thieves don't elude thermal imaging because they are smarter today than they were in the past. They're just better educated.

Law-abiding citizens love watching their cops in action and have driven police-based reality shows to the top of the ratings. But law-abiding citizens aren't the only people watching.

Criminals enjoy shows like *COPS*, *LAPD—Life on the Beat*, *Dallas SWAT*, *Rescue 911* and *World's Scariest Police Chases* as much as anyone. The result is that the very people we are pursuing now know our techniques and tactics. And they know how to hide from us, even when we're using advanced technology like forward looking infrared (FLIR).

MEDIA ATTENTION

When the Fort Worth (TX) Police Department's Air Division received its first thermal imager in the late 1980s, it was not uncommon to net two or three suspects with the device every night. Then, when the night crews were at the top of their game and really good with the equipment, a local television station came out to the unit, flew with a night crew, did interviews, and collected video that TFOs had recorded with the FLIR.

The television station then aired a story showing what the "new high tech equipment" could do. One of the police officers that assisted with the story wished he had never done it. The unit's FLIR "kills" dropped off considerably—proof that word travels fast around the county jail grapevine.

The Dallas Police Department (DPD) has experienced a similar trend over the years. We still make an occasional thermal bust, but we really have to work for those, and it seems like we only catch the dumb criminals.

HIDING FROM THE GHETTO BIRD

At night, DPD usually begins its search with its searchlight on the off chance that the suspect will realize he picked a bad hiding spot and dash to another. After a few minutes and sweeps of the light, we switch to the thermal camera. If the perp is still in the area and hasn't escaped the perimeter, there is a good chance we will find him.

Ground level apartment porches and hedges are popular hiding places. The

well-educated perp, after having been exposed to multiple episodes of *COPS* or Sheriff Bunnell's *Scariest Police Chases* during his cable TV watching, three hots and a cot, and continuing education at the county jail, will hide next to an air-conditioning unit to mask his thermal signature.

Rooftop burglars must be especially trained in this technique, because we have discovered several hiding near warm A/C units or inside torn up ones. In the past, perps concentrated on staying out of the searchlight, moving in the shadows, under

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trees or circling on the opposite side of a tree trunk to hide from our orbit. Now, thanks to TV and movies, they know we can see their heat signature. They don't hide in the corner of the shed in the backyard anymore. They know their body heat can radiate through the walls. They jump into creeks and do the Predator movie thing with the bamboo reed, staying underwater. They hide under cars, or constantly move to stay out of our view.

A stationary high hover search with the thermal camera might not net the suspect; however, a varied orbit search might. If your suspects are in a rural or open area, they know they have to cover as much distance as possible to avoid getting caught. If they do find themselves in a wooded area, for instance, they know to keep moving.

On numerous occasions in recent years, our perps have resorted to crawling through the brush to throw off the thermal operator and K-9 units. They know it will take a considerable effort on the part of the aircrew and ground officers to ultimately catch them. If they are hemmed in and can't escape, they will hide in thick hedges, evergreen bushes and even climb trees.

Start your scan close to the original crime or bail-out scene, scan outward in widening circles, then come back and take another look around the original scene. We have found multiple suspects 15 to 30 minutes after beginning our search very close to the stolen ride or building from which they bailed. For the camera to detect them, their bodies took time to heat up the area surrounding where they were hiding.

OTHER FLIR USES

Even though our unit doesn't log as many FLIR busts as it used to, we still use the thermal camera every night. We use our camera to check for rooftop burglars and entry holes on alarm calls, assist our deployment units with surveillances, sweep motorcade routes for potential terrorists when dignitaries are in town, hold perimeters on barricaded person calls until Dallas SWAT can get set up, check an area for victims of a violent crime who have wandered off or drivers of vehicles who have fled the scenes of accidents, and check the surrounding area of accident scenes for ejections.

We use the camera to eliminate areas where the perp(s) may be suspected of hiding, thus allowing units to return to service faster. It's all routine stuff we do every night, but we can check a larger area more quickly and efficiently with the thermal camera and get on to the next call for service or job.

SLASS SYSTEM

Last year, the DPD was fortunate enough to replace its helicopter fleet with two new Bell 206B3 JetRangers and one Bell 407. We chose to augment our existing L-3 WESCAM camera systems by adding the Universal Searchlights Model S-301 SLASS (Slaved Searchlight System) to each helicopter. The SLASS provides the means for the Nightsun to automatically follow and point in the same direction as the camera gimbal.

The camera gimbal was moved from the belly of the aircraft out to the nose and attached to an AirFilm Camera Systems mount. The camera is now in front of the wire strike protection system, and our operators have a clear, unobstructed view to the front and of the ground in most directions. With the previous mount system, the Nightsun blocked the camera's view to the front, and the skids were constantly getting in the camera's field of view, requiring the pilot to fly out of trim or bank the helicopter to keep the target in sight.

The Nightsun was moved to the rear of the helicopter and mounted below the baggage compartment. Once the system is properly calibrated and the Nightsun slaved, the light follows the camera as long as the camera angles don't exceed the travel of the Nightsun. The system doesn't need to be calibrated on each flight because the settings are saved indefinitely. But since the camera and Nightsun are not co-located, the geometric accuracy can change depending on operating altitudes and slant ranges, requiring occasional "cal trim" adjustments.

So far, we have been very pleased with the entire setup, and geometric errors are seldom an issue. During thermal searches, however, we have to remember to inform ground officers that the light might not be pointed to the same spot we are looking at on the ground.

WORKING WITH OTHER AGENCIES

DPD works closely with Dallas Fire Rescue (DFR), and we are called out on most two-alarm and higher fires with lots of flames to check for ember spot fires and lend assistance with traffic problems.



Several years ago, Dallas had a seven-alarm apartment fire that claimed the lives of three residents. Fire investigators quickly determined the fire was deliberately set and were very pleased to learn we had recorded DTV and thermal video of the fire. Around the same time, DFR worked a five-alarm pallet manufacturing plant fire, also later determined to be arson. The helicopter videos were instrumental in obtaining several convictions in both cases.

HIT THE REC BUTTON

Our best FLIR busts are always the ones when we forgot to hit the record button. There is a certain gratification that can come from being able to watch a good bust over and over again. It's a shame to lose that opportunity.

Use your recorded video to introduce and train your rookies in the academy about thermal imaging. We still get some pretty outlandish requests over the radio expecting us to be able to see through walls, into glass buildings or look for something underwater. Unfortunately, our rookies and seasoned officers don't know we can't do these things if we don't educate them.

Videos are also well received at community crime watch meetings and citizen police academy classes. Videos can seal a conviction, sometimes forcing the perp's lawyer to make a deal to prevent the case from ever going to court. We have seen defense attorneys turn the prosecutor's office into a scene from Monty Hall's *Let's Make a Deal* after viewing our video. So hit the record button and burn up that videotape or fill up those DVRs, and in most cases, you'll be glad you did.

