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Sheriff Offices Look to Tactical Micro-Robots to Reduce Costs and Save Lives

By Jack Klobucar, Recon Robotics



Over the last three years more than 180 law enforcement agencies, including 70+ sheriff offices, have embraced new micro-robot technology that provides tactical teams with immediate situational awareness during high-risk operations. The Recon Scout Throwbot™ is a very small, very quiet mobile robot originally designed for the U.S. military. Now, Recon Scout robots are widely used in tactical situations involving barricaded subjects, hostage rescues, room-clearing operations, narcotics raids, confined space searches and meth lab reconnaissance. Following is an account of how two sheriff organizations use this technology to protect their operators, resolve dangerous situations and reduce costs.

Lieutenant Greg Lees has been with Broward County Sheriff's Office (BCSO) for 27 years and with the agency's tactical team for 25, currently as the team's tactical operations commander. Lees has seen many generations of new tactical gear arrive on the scene, and has incorporated the best of it into team training and operations. In 2007, his team learned about a new tactical micro-robot that they believed could give them a strong advantage during high-risk warrant operations.

"We actually tested the first Recon Scout robot in 2007 when it was initially introduced," says Lees. "We really liked it, but we had no funding for it at that time. I'm a huge believer in robots and video surveillance equipment because equipment like this has saved my life and the lives of other members of our team. When we tested the Recon Scout, we saw its potential right away. It was very small and quiet, maneuverable and throwable, and the price was right. Our team already had a 40-pound tracked robot, but we thought the Recon Scout would give us entirely new capabilities. It wasn't until late 2009 that we secured a federal Urban Area Security Initiative (UASI) grant and purchased the Recon Scout IR model."

My Seven-Year-Old Could Easily Operate It

It did not take long for the team's 34 tactical operators to familiarize themselves with its operation. "We have access to a lot of good reconnaissance electronics and some of it takes a while to learn," says Lees. "That's not true of this robot. My seven-year-old could easily operate it, and that's good because the easier it is to deploy, the more it will get used. And the mobility of the robot is a big plus. We've used camera balls, but when you throw them into a room and they land behind

furniture or something, they're of little use. With this robot, it doesn't matter where it lands, you just drive it to a spot that gives you a good view of the environment."

Broward County covers 1,200 square miles and has a population of more than 1.7 million, giving the BCSO many opportunities to use the robot during its first year with the team.

"We do a lot of warrants that involve breach and hold operations, so the Recon Scout has become a standard piece of equipment in our search warrant packages," says Lees. "We'll breach a door or window, and we will call the people out. If they comply, everything's great. We'll then send the robot in there to see if anyone else is inside before we make entry. If they don't comply and it becomes a barricade situation, we'll use the robot to gain more information about the subject's whereabouts and the layout of the rooms. We've used it on at least ten barricades already. Most recently, we were able to locate one barricaded subject who was lying on the bed in a back bedroom, and finding out a subject's precise location is huge because it allows us to concentrate whatever tactics we're going to use on that location. We can also use the robot to maintain an eyeball on the subjects so we know what they're doing while we are introducing gas, breaching a window or trying to communicate with them. In such instances, we can even use the robot to scout windows or doors that would allow us to make the most effective use of gas."

Providing Inside Information During High Risk Warrants

An additional benefit of the robot that had not initially been considered is the cost savings associated with resolving tactical situations more quickly. According to Lees, uncertainty plays a big role in lengthening SWAT callouts.

"I have been on the team for many years and I can recall many times where we have stood outside of a house or apartment for hours and not known what was happening inside," says Lees. "We might suspect that someone is in there and think they've got a gun, but there's a lot of uncertainty. When I first started, all we had available were hand mirrors and we would stick a mirror around a doorframe and look around. And, you know, clearing a house like that while wearing a gas mask is not a lot of fun. Very dangerous! What these robots and other electronics have allowed us to do is resolve things faster. We can clear rooms, pinpoint areas to focus on and really cut down on the amount of time we're out there, which is important for safety and cost reasons. If we're getting paid overtime and we





have 30 personnel on the scene, it adds up quickly. But if we can get inside information that helps us resolve the situation safely, we're going to use it. We have lots of good tools, and when you use them all in combination, it's very effective."

A Long Night in Central Texas

Captain Mike Gleason heads the Patrol Division of the Williamson County Sheriff's Office in central Texas, a sprawling jurisdiction of 500,000 people that borders Austin, Texas, to the south and extends northward to Fort Hood, the largest military installation in North America. An 18-year veteran of the Sheriff's Office, Gleason is also the commander of the Special Missions Team (SMT), which includes 20 operators and 10 tactical medics. Two years ago, a tactical call out prompted the WCSO to rethink how it tackled barricaded subject situations.

"We had an event that did not unfold the way we had hoped, due in part to the limited equipment that we had back then," says Gleason. "It involved a suicidal subject who resided in an apartment complex, and we had good intelligence that he was inside. We have no idea when, but he had killed himself prior to us arriving on the scene. No one had heard a gunshot so we assumed that he was alive. He was a veteran who we had dealt with on prior occasions, and each time our crisis negotiators were able to talk him out."

The subject lived on the second floor of an apartment complex and Gleason had reason to believe he had hostages, so the SMT began its normal procedures to empty nearby residences, contact the subject and initiate negotiations.

"After a long period of time just watching and listening, we moved up and deployed our throw phone, but we just couldn't reach him," recounts Gleason. "No response at all. Thinking that he was alive, we basically began dismantling the entire apartment in an effort to get him to surrender. We started inserting gas, first OC (oleoresin capsicum) and then CS gas. Each time we waited for the gas to clear and tried to contact him again using the phone. Many hours passed during this process and just as dawn arrived we caught a glimpse of him through the blinds that were shifting in the breeze. He was down and not moving. Now it was a cold winter night, and we had moved all the nearby residents into the game room of the apartment complex to keep them away from the gas. Moreover, a portion of the apartment was now uninhabitable due to the effects of the gas, which took several days to clean up.

"The next day, the Sheriff said to us, 'You know, we sat out there all night because we didn't know what was happening inside, and we pretty much ran all of these people out of their homes. What could we have done differently?'

"And that's when one of my tactical operators said, 'Hey, we were at the Texas Tactical Conference (TTPOA) and we saw this small Recon Scout robot that was very affordable, not at all like the big bomb squad robots. It would be perfect for situations like this.'"

A short time later, the Sheriff funded the purchase of the Recon Scout IR out of the agency's seized funds account, gaining a tool that could provide inside information about barricaded subjects and other high-risk warrant operations. The premise was simple: quickly obtain situational awareness that will protect tactical operators and enhance tactical planning. A short time later, an eerily similar situation proved that the WCSO made the right move.

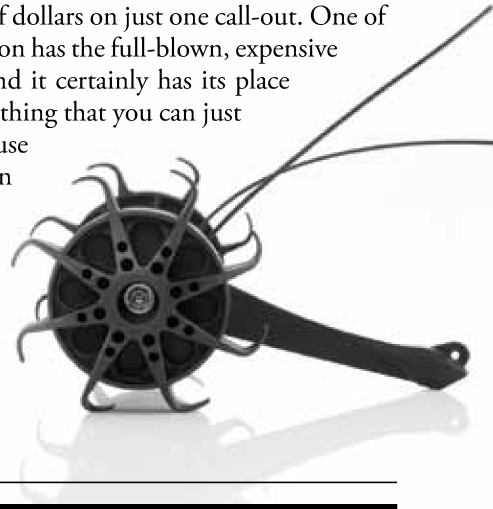
A Better Result in Leander

"This past year, the police department in Leander, Texas, called us to assist on another barricade," says Gleason. "They had a woman – prior military – who they had dealt with before. She was in a disturbance with her domestic partner and as the responding officers walked up to the scene, she fired shots at them. They immediately retreated, hunkered down and contacted us. When we arrived, they wanted us to just start pumping gas in there and we said, 'Well, it kind of really doesn't work that way, there's a process that we have to go through.' So we went up to the residence and tossed in our throw phone. No one responded, so we introduced some gas. We could see her dog running around and also heard some coughing, but because the type of gas we introduced doesn't affect canines we knew that we had someone alive in there. We then threw in the Recon Scout and drove it throughout the house. We needed to know where she was and if she was armed. In a matter of minutes, the robot found her beneath a couch that she had flipped over to protect herself from the gas. The robot showed that the gas was still reaching her and she was going unconscious. We could see that she was naked and unarmed, so our team put their masks on, shielded up and moved directly towards her while the Recon Scout kept an eye on her. We were able to take her into custody and our medics treated her right there on the front porch.

"We found out after the fact that she had taken a lot of medication and was intoxicated in an attempt to kill herself. If we would have done the normal negotiate, negotiate, negotiate process, and then try to enter and own one room at a time, and ultimately introduce several types of gas, we would have been talking about a long drawn out time – many hours. She probably would have died. As it was, using the robot took us all of twenty minutes to resolve this situation. We later found firearms in the house, so we were very happy with the outcome.

"The biggest plus of the Recon Scout IR is that it saves time, which in many situations can mean all the difference," says Gleason. "In addition, the information that the robot provides might save us thousands of dollars on just one call-out. One of the other teams in our region has the full-blown, expensive EOD-type track robot, and it certainly has its place in the world, but for something that you can just throw in a backpack and use in a split second, the Recon Scout is invaluable." ✪

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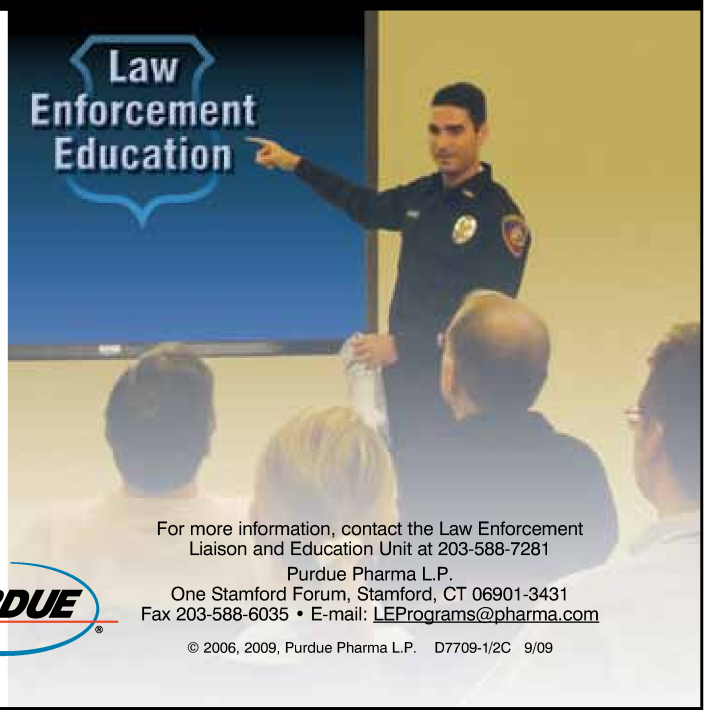
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