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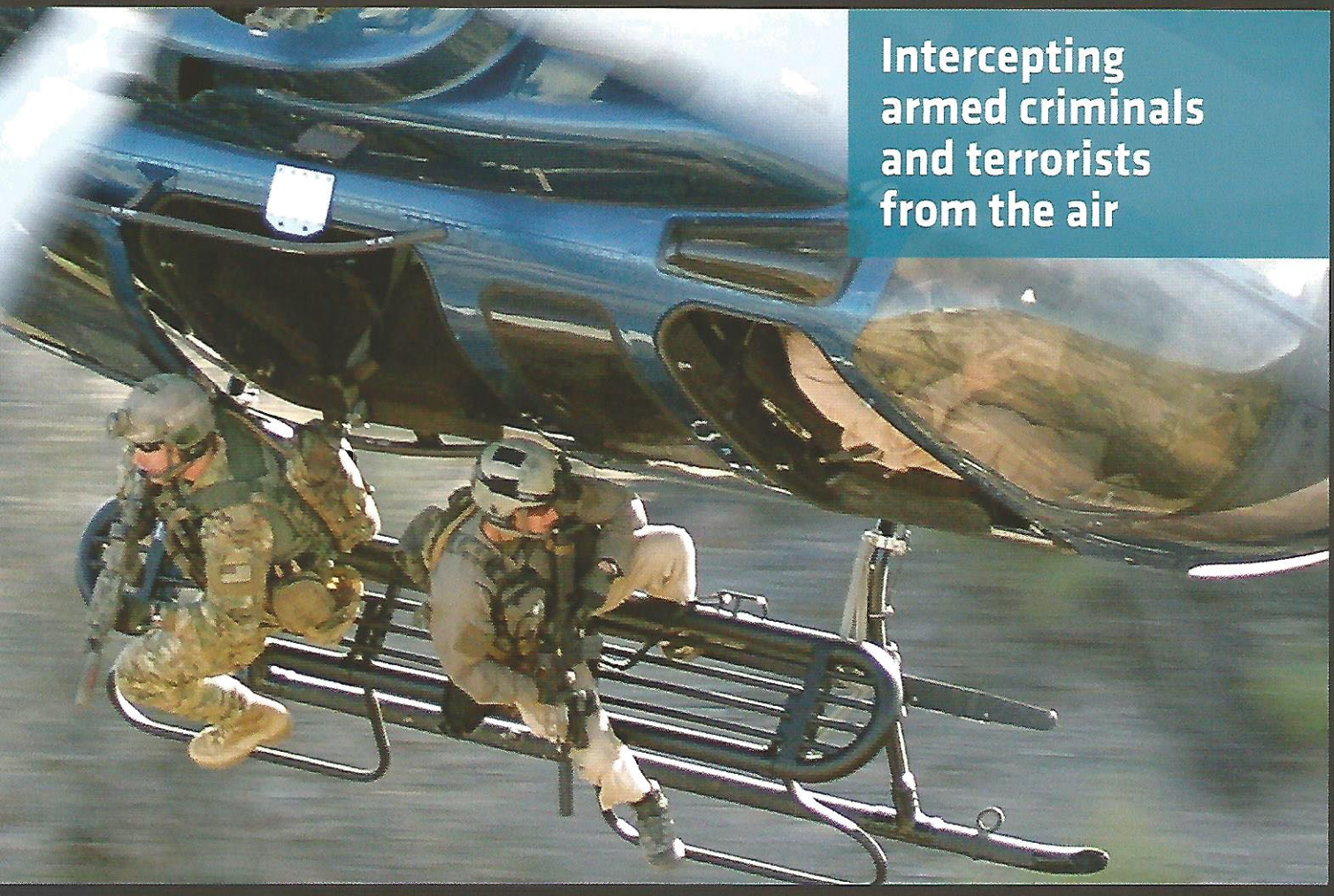
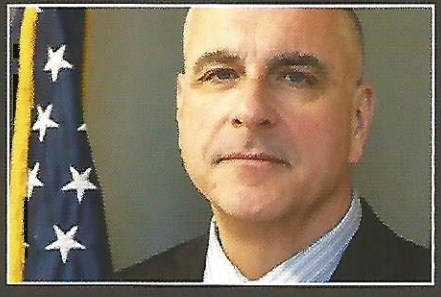


Intercepting armed criminals and terrorists from the air

Do high-tech fences make better borders?

Vermont's public safety deputy commissioner realises the importance of interagency cooperation at the highest levels



Law enforcement will demand capability for countering drones

MARK LANG

Taking the high ground

The police aerial platform

The combination of a police helicopter and a trained sniper can help resolve law enforcement events.

Question of ability

On 7 July 2016, a gunman using a rifle killed five Dallas police officers as they guarded protesters at an anti-police brutality march in the downtown area.

I was home at my computer when I got the all SWAT (special weapons and tactics) call-out message that required every Dallas Police Department (DPD) SWAT (special weapons and tactics) officer to gear up and respond to meet at our headquarters. Being one of the DPD SWAT snipers, I quickly prepped while monitoring the police radio which provided me the initial information that several officers had been shot in downtown Dallas from what could be multiple shooters in a coordinated, sustained attack. During the Code 3 drive downtown, I alternated between several radio-channels trying to figure out what was happening and how best to respond to what was clearly a still-developing active gunfight. Radio messages still seemed to indicate there were multiple shooters in the immediate area and in elevated positions of cover and concealment with tactical overview of the city. Only later did we find out it was one shooter who was responsible for the heinous attack.

I requested to deploy **Aerial Platform** from the SWAT commander and was given the green light so I drove to a designated off-site landing zone to 'RV' with the DPD chopper. I contacted Air 1 who was returning to downtown from refuelling and met them at the LZ (landing zone). They put down in a parking lot and I loaded into the aircraft just like I had trained many times before. With practiced effort I rigged it for me and my sniper rifle and establishing communications with the pilot.

Because of the prior training and practice we spent minimal time on the ground and we were quickly airborne and headed back on scene circling around the iconic Bank of America building for what seemed to be all night. We continued police sniper over watch from the helicopter for several hours, looking for any potential threats on rooftops, streets, and

The combination of a police helicopter and trained sniper can help resolve many law enforcement events. All photos: Author

also handling any requests from the officers on the ground. Although that night and well into the morning, aerial platform interdiction was not used for any live firing, the capability was there if needed during the worst single day for police officers in our country since 911.

Had we not been trained in the pre-deployment, rigging, and coordination needed for this asset, we would have not been able to provide the needed over watch during this critical event.

Getting started

Aerial Platform is the capability to provide accurate rifle fire from a moving airborne platform in support of a patrol or tactical operation. Searching for armed criminals and/or terrorists is immeasurably valuable from the air. There are things you cannot see when you are at ground level. While only months ago, in March of 2016, there was a prime example agency interoperability success involving a DPD helicopter and Ft. Worth SWAT.

Additionally, the Critical Incident Response Group's (CIRG) surveillance and aviation section (SAS) provides modern jets and rotary-wing aircraft that respond to crisis situations domestically and around the world.

In an all-to familiar scenario, a Ft. Worth police officer was shot and seriously wounded from ambush while responding to a call. With the suspect on the run in a large rural location, a Ft. Worth police sniper deployed in a DPD Jet Ranger 206 single-rotor helicopter turning it into an effective aerial platform sniper platform. Due to the practiced interoperability, coordination, and training between the agencies and the SWAT teams and their air assets, the teaming of the helicopter and SWAT sniper was quick and effective. This deployment lasted nearly an hour and helped lead to the capture of the suspect.

The everyday value of 'AP' deployment in the police setting will largely be protective over watch and intelligence gathering rather than interdicting a target, but the ability to interdict a target from above with rounds impacting in a safe downward angle cannot be overstated. Recently, the Polk County Sheriff's Office (PCSO) in Bartow, Florida, contracted with Tacflow Academy for a two-day aerial platform course. Like many large Florida agencies, PCSO has MD500E and OH-58 helicopters which are excellent for not only observation but are very stable platforms for law enforcement sharpshooting. PCSO did not have an aerial platform programme and wanted to begin with formalised training first before placing a SWAT operator with a rifle in the aircraft.

The moving platform

As with every class, before any firing can be conducted from the moving platform (helicopter), the students who were very experienced 'LE' marksmen were taught the variable forces that are present that are unique to firing from this platform. It is not as simple as point of aim (POA) equals point of impact (POI). In fact, it is anything but. While the simple act of firing from this platform is not especially difficult, the student must understand gravity, vertical down-wash, speed of the aircraft and whether the selected target(s) are moving or static. It can be confusing or frustrating if the experienced marksmen do not understand the complex, three-dimensional dynamics that is occurring while firing from the aircraft, so it's beneficial to spend some time in the classroom to gain a better understanding.

Dr. Lyman Hazelton, a renowned ballistician and scientist developed his proprietary ballistic software called AIM-E. This software allows for precise lag holds (a reticule or red dot hold that is behind the target not in front) to be developed based on the students rifle and bullet specifics and the distance and speed to a target. This proprietary information is so exact that it is ITAR (International Traffic in Arms Regulations)-regulated among other things. Essentially, a student, when properly applying the fundamentals of marksmanship in the aircraft can accurately engage targets with a high degree of hit probability. Dr. Hazelton's information is in use successfully with several US police departments and is currently being taught by a select few instructors including myself. PCSO was the benefactor recently, as I conducted a course for selected members of their SWAT team.

Surveillance and aviation

The Critical Incident Response Group's (CIRG) surveillance and aviation section (SAS) can deploy aviation assets worldwide, including assignments in combat theatres. Capabilities include foreign transfer-of-custody flights for high-profile terrorism and criminal subjects and the delivery of hazardous and explosive material to crime laboratories located throughout the United States. To support the FBI's aviation mission, SAS maintains a rigorous aircraft maintenance and quality control program. Along with mandatory pilot training, these programs have produced a safety record per flight hour that is unmatched by general aviation or any other government agency. It is the responsibility of SAS to ensure that all Bureau flight operations are conducted safely.

CIRG was established in 1994 to integrate tactical, negotiations, behavioural analysis, and crisis management resources into one cohesive structure to facilitate the FBI's rapid response to critical incidents. As the Bureau's mission has expanded over the years, so have CIRG's responsibilities, but the premise behind its formation remains. Today, CIRG, which has a motto of *Proventus Per Adparatus* (success through readiness) has grown into a 'one-stop shop' that provides expertise in the following fields: crisis management; hazardous devices disruption; crisis negotiations; behavioural analysis and assessments; strategic information dissemination; tactical and technical operations; ground and air surveillance; aviation support; special events management; and rapid deployment logistics.

CIRG personnel are on call around the clock, seven days a week, ready to assist FBI field divisions and law enforcement partners in pre-crisis planning and response to critical incidents, major investigations, and special events. Through the Strategic Information Operations Center (SIOC), CIRG also facilitates enterprise-wide situational awareness and maintains a platform for critical interface and the dissemination of strategic information. In addition, CIRG provides training programs to FBI field offices and federal, state, local, and international law enforcement partners. With aggressive training programs, state-of-the-art equipment, and expertise in a broad range of tactical and investigative techniques, CIRG is capable of fulfilling its overall mission of "readiness, response and resolution" to manage critical incidents.

Safety rigging

After classroom was finished with the shooters, pilots, and tactical flight officers (TFOs), the class moved to the range where safety and proper rigging was discussed and demonstrated on the two helicopters PCSO had dedicated for the training. Each aircraft offered different capabilities, useful space and even anchor points than the other. A hard anchor point must be identified first and must be load bearing rated. Most pilots are very familiar with their aircraft and can assist in this selection. Once this has been selected the proper lanyard should be used to attach to the student. I use and highly recommend the Yates 571 rappel master adjustable lanyard w/shock stop. Its adjustability offers the student the ability to adjust their position with their support hand to tighten or loosen the amount of length needed. A quality riggers belt or safety rated seat is necessary for absolute and unquestionable support of the shooter.

In the event of an evasive manoeuvre or the aircraft experiencing a mechanical issue, the student must be tethered to the anchor point through the use of the safety lanyard. The sniper will always be safer inside the aircraft as opposed to outside of it during an emergency landing or auto rotation.

Firing platform

Once the safety tethering has been covered, it is time to talk and demonstrate different platforms to help stabilise the rifle during movement. In the air, the vibration of the aircraft transmits to the rifle and is reflected in the sight picture, whether red dot or variable powered riflescope. To this end there are several options to mitigate the vibration that is seen. These platform options are dictated largely by the size and type of aircraft being flown. Many police departments today operate smaller aircraft as a cost savings measure. If search-and-rescue is not a primary mission, then most agencies opt for the less expensive smaller aircraft. Some of the common aircraft are the Bell Jet Ranger 206/407; Airbus Helicopters A-STAR, and McDonnel Douglas' 500 family.

Just like every officer in any agency across the country, SWAT officers in this role are accountable for every round that exits their rifle so they must do their best to ensure a stable firing platform. The most common method is a sling across the door opening. I use and recommend the Viking Tactics 1 adjustable sling with a common bungee cord attached on one or both ends. This method is not only field expedient, but it allows the student to place the front of their rifle on the sling and traverse laterally as they apply ambush or tracking methods on the intended target. The bungee helps mitigate the vibration of the aircraft as it is seen in the optic. An aerial platform 'pillow' or bag is also useful as it allows the student to place both of their elbows into a soft material allowing for a more stable sight picture. These bags, as with any other loose gear, shall also be tethered to the student by way of a carbine. In larger aircraft, such as the Bell Huey 2, the Spec-Rest MODSOP (modular sniper ops platform) can be deployed onto the larger deck. The Spec-Rest is tethered to the floor rings and allows for two contact point support of the rifle. This rest is a master at felt recoil attenuation on the flat range and in this application allows for a much more stable sight picture for the student. Students are taught that any equipment or kit that is brought into the aircraft must be secured in some form or fashion to the aircraft. There are no exceptions to this.

Static ground firing

Once rigging and safety has been covered, it was time to crank up the aircraft and conduct some 100m zero checks at flight idle. This affords the student the opportunity to fire their rifle while on the ground before moving to the air. Students are able to get repetitions getting into position, setting the anchor point and setting their sling. This also affords the pilots the opportunity to hear and see what is occurring. With many SWAT teams now using short barrel rifles (SBRs), the relationship of the muzzle to the pilot or TFO and the rotors and skids must always be ever present on the students mind. Suppressed rifles are highly recommended for this application.

Pilot/SWAT relationship

Many do not understand the trust and relationship that must be developed between the pilot and SWAT officer. This relationship is developed over time through the initial formal training, but really flourishes during sustainment training. Common mistakes can occur due to a lack of basic understanding if only a select few pilots train with limited SWAT officers. For this reason, all pilots/TFO should train with the SWAT officers that have been selected for this role. The pilots are the aircraft commanders and have absolute control of what occurs in the aircraft. The SWAT officer in the Aerial Platform role does not have the

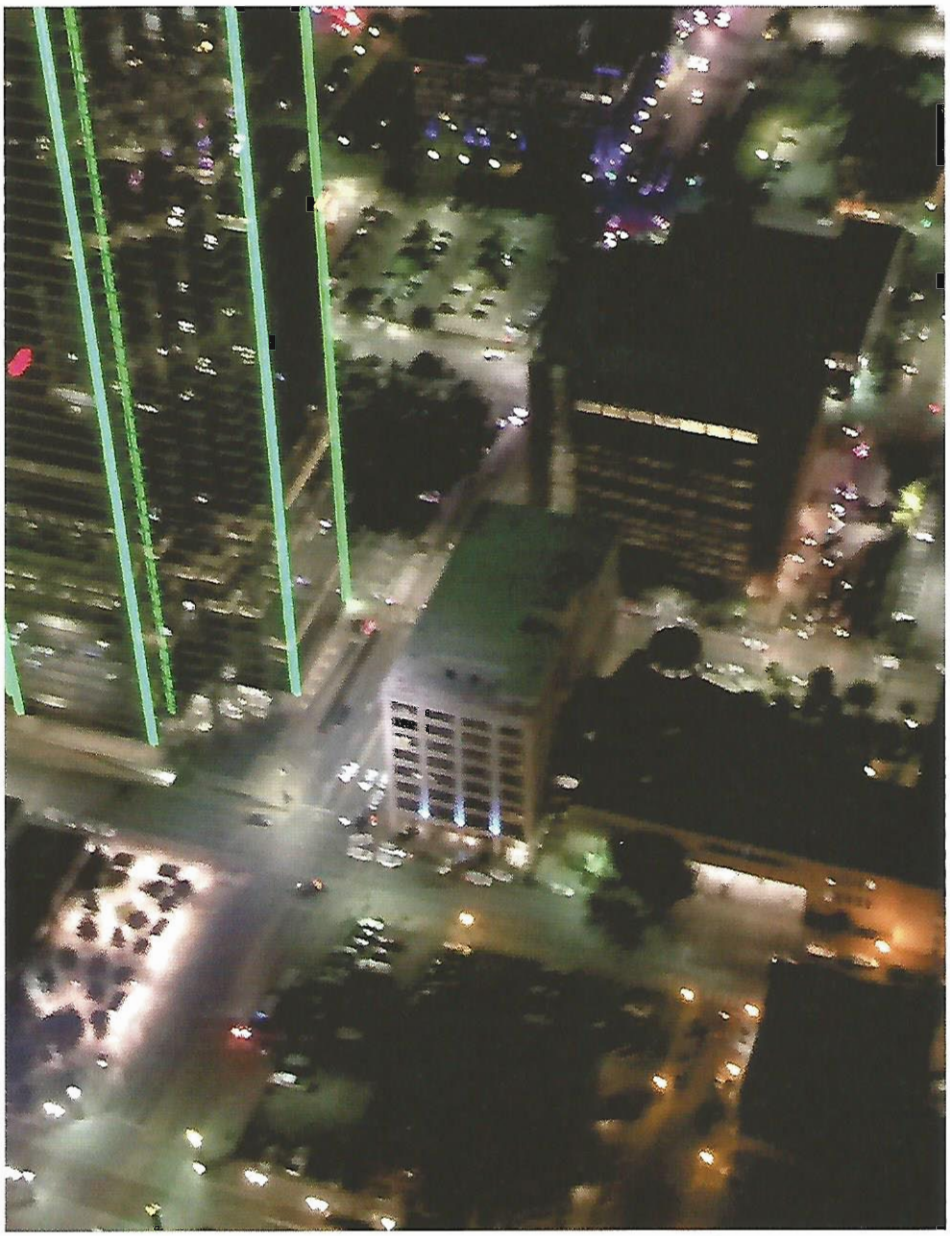


Photo taken by DPD Mark Lang on 7 July 2016 of the unfolding Dallas shooting.

authority to override them regardless of rank, position or situation. Understanding the capabilities and limitations of each is key to successful training and deployment.

Multiple approaches to target

For Aerial Platform to be successful in a crisis there must be options when attempting to interdict an immediate threat. This means you cannot have all your eggs in one basket. Only knowing one way to fly in and approach a target by air is small minded and could have great consequences, especially if ground officers must push in and expose themselves to interdict the threat. The scenarios that could occur are countless and much thought should be given to how to approach. The approach ultimately will be decided by the pilot with input from the SWAT officer. The two day class provided tactical options for the shooters and aircrew, using several different approaches to the target to allow for flexibility in a fluid, kinetic situation and variable threat environment to observe and interdict if needed.

SWAT commanders do not want excuses for why a problem cannot be solved and a viable, well trained Aerial Platform programme can provide them with positive options. The key to successful implementation of various target approaches is sustainment training. Only through training will pilots and SWAT officers have the confidence to perform on demand.

Putting it all together

Although there were many performance objectives during the training, the ultimate goal for PCSO was deploying Aerial Platform into their aircraft on demand. This meant an off-site landing and load in during flight idle. The goal is for the student to drive up to the LZ, exit their vehicle, grab their kit, and load into the aircraft in under two minutes. This is the standard that the students were held to. During a real deployment, especially if there is only one aircraft available, time away from the problem is critical and must be minimised as much as possible. To this end, students and aircrew must train and achieve this two minute mark consistently.

Some Aerial Platform deployments suffer or do not occur because to a great extent to lack of pre-planning so that the fear that the delay caused by rigging in the sniper, gear and barrel support will discourage commanders to pull the aircraft from the incident, especially if it involves a pursuit. Through training and inviting the chain of command out to observe, this can overcome as the efficiency of this deployment is showcased for all to see.

Concluding thoughts

Police and sheriff agencies that operate helicopters should be in the business of having an Aerial Platform programme. Quite simply, law enforcement cannot afford to ignore the capabilities and not take advantage of this capability. If a tactical situation occurs where the best response is an armed officer in an aerial platform, there is no substitute for having prepared snipers with the gear, experience and ability to mount and deploy in minutes instead of losing control of a situation. To this end, both proper formal and sustainment training must be conducted to produce a safe, rapid and effective option that when needed in a time of crisis can be called upon to resolve the incident safely for all involved.

Source: Big 3 East

Mark Lang is a US SWAT officer and lead instructor at Tacflow Academy, Phoenix, Arizona.

Photo: Tacflow Academy