

INTRADEPARTMENTAL CORRESPONDENCE

July 3, 2019
16.1

TO: The Honorable Board of Police Commissioners

FROM: Chief of Police

SUBJECT: SMALL UNMANNED AERIAL SYSTEMS PILOT PROGRAM
FINAL REPORT

RECOMMENDED ACTION

1. The Board of Police Commissioners REVIEW and APPROVE the Department's final report on the Small Unmanned Aerial Systems (sUAS) Pilot Program.

BACKGROUND

On July 16, 2018, the Department implemented a one-year pilot program (attached) to evaluate whether a sUAS would enhance the ability of Metropolitan Division's, Special Weapons and Tactics (SWAT) team, to safely resolve dangerous high-risk tactical situations. Additionally, the use of a sUAS would greatly improve the situational awareness capabilities of the Department during natural disasters, catastrophic and hazardous material incidents. Reverence for human life, served as the guiding principle during the implementation of the sUAS pilot program. The sUAS was to be utilized as an effective de-escalation tool in the preservation of life and harm reduction situations. Overall, the deployment of a sUAS would enhance the Department's ability to protect and serve the public.

DISCUSSION

The pilot program mandated an evaluation of the sUAS system at the end of the one-year testing period. The program manager, Air Support Division (ASD), conducted the required evaluation in the following areas:

1. An analysis of the use of a sUAS, including results of monthly audits measuring performance relative to the adherence of deployment and accountability rules;
2. The number of sUAS deployments;
3. The types of situations in which a sUAS was deployed;
4. The overall results and effectiveness of a sUAS in resolving incidents;
5. Whether a sUAS mitigated the risk of harm to officers, suspects, and the public;
6. Whether deployment of a sUAS reduced costs associated with responding to similar incidents; and,
7. Recommendations on whether the use of a sUAS should be continued and, if so, any modifications to these guidelines or other policies and procedures that should be considered.

REPORTING

Analysis of sUAS use, including results of monthly audits measuring performance relative to the adherence of deployment and accountability rules

All flights, including training flights, were analyzed to ensure compliance with Federal Aviation Regulations (FARs) and program guidelines. All flights complied with established guidelines and regulations.

sUAS Usage and Deployment

| Month | No. of Practice Flights | Total Practice Flight Time | Number of Tactical Deployment Incidents | Total Tactical Deployment Flight Time | Type of Tactical Deployment Incidents | Chain of Command Approval |
|------------------------|-------------------------|----------------------------|---|---------------------------------------|--|---------------------------|
| July 2018 | 6 | 00:55:10 | 0 | N/A | N/A | N/A |
| August 2018 | 0 | 0 | 0 | N/A | N/A | N/A |
| September 2018 | 0 | 0 | 0 | N/A | N/A | N/A |
| October 2018 | 1 | 00:00:36 | 0 | N/A | N/A | N/A |
| November 2018 | 10 | 01:07:25 | 0 | N/A | N/A | N/A |
| December 2018 | 5 | 00:53:34 | 0 | N/A | N/A | N/A |
| January 2019 | 92 | 06:26:45 | 1 | 00:11:23 | Barricaded Robbery Suspect | Y |
| February 2019 | 0 | 0 | 0 | N/A | N/A | N/A |
| March 2019 | 23 | 01:04:14 | 1 | 00:24:35 | Barricaded Burglary/Robbery Suspect | Y |
| April 2019 | 14 | 01:32:39 | 0 | N/A | N/A | Y ¹ |
| May 2019 | 17 | 01:40:00 | 1 | 00:20:18 | High-Risk Search Warrant (Assault Rifles Involved) | Y |
| June 2019 | 3 | 00:25:18 | 1 | 00:03:52 | Barricaded Shooting Suspect | Y |
| July 2019 ² | N/A | N/A | N/A | N/A | N/A | N/A |
| Totals | 171 | 14:05:41 | 4 | 01:00:08 | N/A | N/A |

SWAT Call-Outs vs. sUAS Deployments

| Call-Outs & Search Warrants | sUAS Deployment Approvals | sUAS Deployments |
|-----------------------------|---------------------------|------------------|
| 78 | 6 | 4 |

¹ sUAS was approved on April 3, 2019 & April 7, 2019, but was not deployed; see pages 3 & 4 for further details.

² Data for July 2019 is unavailable as this report was completed on July 1, 2019.

The number of sUAS approved/deployed

During the one-year pilot program, the Department received and approved six requests for deployment. However, a sUAS was only deployed on four of these occasions. The below tables are indicative of the six approvals for deployment. Prior to each of these deployments, the SWAT officer-in-charge (OIC) made a request for deployment to the on-scene Metropolitan Division Commanding Officer, who then elevated the request to the appropriate Counter-Terrorism and Special Operations Bureau (CTSOB) staff officer (commander or higher) as designated by the sUAS deployment guidelines and procedures. Upon receipt of approval from the Commanding Officer, CTSOB, the sUAS was deployed on four of the six approved requests.

sUAS Tactical Deployments

| Date | Location | Area |
|-----------------|-----------------------------------|------------------|
| January 9, 2019 | 314 North Berendo Street | Rampart |
| March 28, 2019 | 7402 South San Pedro Street | 77 th |
| May 8, 2019 | 111 North Beverly Glenn Boulevard | West Los Angeles |
| June 15, 2019 | Manchester Avenue/Crocker Street | Southeast |

sUAS Tactical Deployments Approved – Not Deployed

| Date | Location | Area |
|---------------|--------------------------|-------------|
| April 3, 2019 | 4434 Grimes Place | West Valley |
| April 7, 2019 | 1028 S. Hobart Boulevard | Olympic |

Types of incidents in which a sUAS was approved/deployed

On **January 9, 2019**, a sUAS was deployed at the scene of a barricaded robbery suspect inside an apartment: The SWAT OIC opined that the incident and involved circumstances met the criteria for a sUAS deployment and conveyed the request to Captain Jonathan Tippet, Commanding Officer, Metropolitan Division. Captain Tippet then elevated the request to Commander Peter Zarcone, Commanding Officer, Special Operations Group (SOG), who was on scene. Commander Zarcone spoke with and received final approval for deployment from Deputy Chief Horace Frank, Commanding Officer, CTSOB. The sUAS provided real-time video feed of the apartment interior as the SWAT team approached the door via a confined stairwell to a small landing. The video feed allowed the pilot to ensure the suspect was not lying in wait for the entry team.

On **March 28, 2019**, a sUAS was deployed at the scene of a barricaded robbery/burglary suspect inside an apartment: The SWAT OIC opined that the incident met the criteria for sUAS deployment and conveyed a request for deployment to Captain Jonathan Tippet. Captain Tippet concurred and elevated this request to Commander Zarcone, who then received approval from Deputy Chief Frank. The sUAS provided real-time video feed of an atrium area within the apartment complex. The atrium was only visible from the rooftop or from the air and was an avenue of escape for the suspect. The sUAS allowed the pilot to monitor the rear of the apartment, with access to this atrium, while SWAT officers introduced teargas into the location.

On **April 3, 2019**, the sUAS was approved for deployment but not deployed. The approval was for the service of a search warrant due to the size and layout of the property, potential high-ground access and access to high powered weapons by the suspect(s). The sUAS ultimately was not deployed because the officers discovered that they could monitor the high-ground access and cover the team's approach from an advantageous position, without the use of the sUAS.

On **April 7, 2019**, the sUAS was approved for deployment due to a barricaded subject who was unresponsive to police direction and was armed with a rifle. The location was described by family (and observed by patrol officers) as extremely cluttered due to the subject's "hoarder" tendencies. It was believed that the robot would become stuck in the clutter, thereby rendering it ineffective. Although the robot did in fact become stuck, the SWAT personnel were able to develop a rapport with the subject and eventually convinced him to peacefully exit. Deployment approval for the sUAS was requested as a contingency to the robot becoming ineffective, but was not needed.

On **May 8, 2019**, a sUAS was deployed at the scene of a search warrant at a single-family residence: The SWAT OIC opined that the scope and breadth of the search warrant met the criteria for a sUAS deployment and conveyed a request for such deployment to Captain Tippet. Captain Tippet agreed and elevated this request to Commander Zarcone, who was the on-scene CTSOB staff officer, also the Acting Commanding Officer, CTSOB. Commander Zarcone granted approval. The sUAS provided real-time video feed of the search warrant residence (8,200 square feet) and the surrounding property (0.89 acres). The suspect was known to be in possession of numerous high-powered assault rifles. Additionally, the dense foliage on the expansive property created several positions of advantage, from which the suspect could launch an attack on officers. The low-noise level and low flight capability of the sUAS made it the preferred option over the use of an Air Support Division (ASD) helicopter to scan and monitor the perimeter of the property and residence entry/exit points.

On **June 15, 2019**, a sUAS was deployed at the scene of a barricaded suspect who was wanted in connection with a car-to-car shooting and was still armed. The suspect fled from officers into a trucking yard in an attempt to elude officers. The SWAT OIC opined that this incident met the criteria for a sUAS deployment and discussed the need for its deployment with Captain Tippet. Captain Tippet agreed and received approval from Deputy Chief Frank. The sUAS provided real-time video feed of a long cargo trailer, as well as a parked vehicle that was adjacent to the trailer. The sUAS provided a safe view of the vehicle's interior, as well as the interior of the cargo trailer without compromising the safety of SWAT personnel. This particular location was filled with cargo trailers, vehicles, and clutter that limited the use of traditional robotics. The aerial vantagepoint provided by the sUAS allowed the officers to work the problem safely and efficiently, while reducing the overall time spent at the scene during this incident. In this particular incident, patrol officers and a helicopter had been deployed at this location for several hours trying to secure the suspect's voluntary surrender, prior to the arrival of SWAT. Within minutes of the sUAS being introduced into this incident, at the entrance of the open trailer occupied by the suspect, the suspect indicated a desire to surrender; and subsequently did so without further incident.

Overall results and effectiveness of a sUAS in resolving incidents, AND, whether sUAS deployments mitigated risk and harm to officers, suspects and the public

In each of the deployments, SWAT personnel reported the use of a sUAS provided them with real-time video feed in areas they were unable to physically observe. This included locations where a suspect could secrete themselves and initiate an attack on officers. Often, SWAT personnel must approach points of entry to structures that are confined and lack cover. Through the deployment of a sUAS during an incident, SWAT personnel determined that no suspect was in the immediate vicinity of a door that was to be breached. In another incident, a sUAS monitored an open atrium that was a potential escape or redeployment avenue for the suspect. During a search warrant service, the sUAS assisted in clearing a yard with the use of a thermal camera during hours of darkness before containment was established. Lastly, the most recent incident involved an armed shooting suspect who was hiding from officers. The deployment of the sUAS with its bright lights and capability to provide real-time video feed persuaded the suspect to surrender without further issues and delay. The common theme during these incidents was the ability to clear and monitor unsecured areas mitigating officer safety concerns of ambushes, surprise attacks and positions of advantage by suspects. Additionally, during several of these incidents, the introduction of a police K9 would have been within established Department procedures. However, the deployment of the sUAS provided a safe alternative to a potential confrontation between a suspect and police K9, ultimately mitigating risk and harm to the police K9, its assigned handler, the suspect, and the community at large.

Analysis of costs associated with responding to similar incidents; Overall results and effectiveness of a sUAS in resolving incidents

While it is difficult to say with a degree of certainty what the exact cost savings were to the Department and the City because of the sUAS deployments, the below chart provides a cost breakdown of each of the four incidents, when SWAT personnel and an air unit were used in conjunction with a sUAS deployment. Based on the June 15, 2019, incident, we can anecdotally state that the deployment of the sUAS expedited the safe resolution of this incident while negating the need for the use of ferret rounds and/or hot gas.

| Incident Date & Location | Personnel | Overtime Rate/Hour ³ | Equipment | Equipment Costs | Potential Hourly Savings |
|--------------------------------------|---------------------------|---------------------------------|--------------------------------------|--|--------------------------|
| 01/19/19 314 N. Berendo St. | SWAT (22) Air Unit (2) | 95.00/Hour | Airship BearCat SWAT Truck | Fuel: \$101.25/hour Maintenance: \$463.20/hour Fuel: \$2.10/hour Fuel: \$2.35/hour | \$2848.90 |
| 03/28/19 7402 S. San Pedro St. | SWAT (22) Air Unit (2) | 95.00/Hour | Airship BearCat SWAT Truck | Fuel: \$101.25/hour Maintenance: \$463.20/hour Fuel: \$2.10/hour Fuel: \$2.35/hour | \$2848.90 |

³ Designated by the City of Los Angeles, Cost Allocation Plan 39

| Incident Date & Location | Personnel | Overtime Rate/Hour⁴ | Equipment | Equipment Costs | Potential Hourly Savings |
|--|---------------------------|---------------------------------------|--------------------------------------|--|---------------------------------|
| 05/08/19 111 N. Beverly Glenn Blvd | SWAT (32) Air Unit (2) | 95.00/Hour | Airship BearCat SWAT Truck | Fuel: \$101.25/hour Maintenance: \$463.20/hour Fuel: \$2.10 Fuel: \$2.35/hour | \$3796.90 |
| 06/15/19 Manchester Ave/Crocker St. | SWAT (22) Air Unit (2) | 95.00/Hour | Airship BearCat SWAT Truck | Fuel: \$101.25/hour Maintenance: \$463.20/hour Fuel: \$2.10/hour Fuel: \$2.35/hour | \$2,848.90 |

* Additional resources utilized by SWAT are the ferret rounds and/or hot gas. The following are the types of gas products in SWAT’s inventory: 40 mm Ferret penetrator approximately \$16.37-\$19.02, Instantaneous Blast Grenade \$36.80, OC Vapor Aerosol Grenade \$34.50.

In addition to mitigating risks to Department personnel, suspects, and the public, the deployment of sUAS potentially reduces monetary costs associated with personnel, equipment maintenance and/or additional Department assets (e.g. ASD helicopter). The above table depicts each of the four sUAS-deployed incidents, the number of SWAT and Air Support Division personnel deployed at each, along with the associated personnel and equipment costs. The aforementioned notwithstanding, the potential costs associated with each additional hour of involvement at a SWAT incident would be extremely costly to the Department and the City of Los Angeles. Again, an example of this was the June 15, 2019 deployment where after several hours of the airship in use over the incident and officers unsuccessfully securing the suspect’s surrender, the sUAS was deployed at the entrance to the opening of the location. Within minutes of the deployment, the suspect, observing the sUAS, surrendered without further incident.

Technology updates within the sUAS program

- The Department is currently awaiting approval of a donated software. Measure Aerial Intelligence Software provides an application-based interface to manage missions, aircraft, and pilots. The application will automate reporting, reduce errors and validate mission parameters on demand. Approval for integrating the system with Department unmanned aircraft has been approved by Administrative Services Bureau and will be on calendar for Board of Police Commissioners (BOPC) approval within the next 30-45 days.
- Unmanned Traffic Management (UTM) technology is a Federal Aviation Administration (FAA) priority. The UTM will incorporate identification methods for integration in the National Airspace. When the FAA decides on equipment and process requirements, the Department will be required to update the unmanned aircraft fleet to comply with FAA regulations.

⁴ Designated by the City of Los Angeles, Cost Allocation Plan 39

- DJI company recently released a new sUAS model designed for law enforcement and first responder deployments. This enhanced version is based upon a pre-existing commercial model, the “Spark” and is called the "Mavic Enterprise Dual." DJI is committed to developing products that will continue to enhance officer and public safety.

Lessons Learned

- The original sUAS (DJI "Spark") that was purchased, was intended to be used for indoor flight, but is now considered outdated technology. During practice flights, officers found that while flying indoors, the integrated Global Positioning System (GPS) routinely and indiscriminately disconnected from available satellites. When the sUAS was not connected to a satellite, it did not have the advantage of using GPS. This made for a much more precarious and less predictable flight. Officers also learned that without a light source, the onboard sensors were unable to pick up the surrounding terrain.
- The new technology that DJI developed is specifically designed to address the above issues while maintaining the same control platform. Control systems remaining the same enables sUAS operators to seamlessly transition to the newly designed aircraft. This allows them to focus on mastering the new features and upgraded systems instead of having to learn a new platform. Some of the new system features include:
 - Integrated Radiometric Forward-Looking Infrared (FLIR) Thermal Sensor with adjustable parameters for emissivity and reflective surfaces.
 - The extended port allows the operator to connect additional devices onto the sUAS which include; 2k Lumen spotlight, onboard speaker system, and a lighted beacon for night flight.
 - Improved Flight Autonomy with omni-directional obstacle sensing; an advanced sensing system comprised of eight high-resolution visual sensors and two infrared sensors placed on the sides of the aircraft.
 - Advanced Pilot System which enables the sUAS to intuitively detect objects on its every move, assisting in more efficient flight around or over obstacles, particularly in tight spaces.
 - Enhanced 8km transmission range resulting in less interference.
 - Longer flight time, estimated at 31 minutes.
- Operators opine that with this new technology, the improved sUAS will enhance the ability to fly indoors, and in low/no light conditions while maintaining the accustomed control platform.
- Technology continues to advance at a rapid pace, which makes it difficult to stay current with the most innovative products due to budgetary constraints.

RECOMMENDATIONS

It is recommended that the sUAS program be adopted for SWAT as a permanent Department standard operating procedure and deployment tool. Unmanned aircraft are a valuable de-escalation tool in addition to providing situational awareness along with an increased advantage of time and distance to resolve incidents and reduce the likelihood of a use of force. This pilot program demonstrated the Department is capable of operating sUAS in a tactical environment while adhering to privacy and related public concerns. It is also recommended that the sUAS policy include provisions for its use at search warrant service locations deemed to be “high-risk.” The sUAS has proven to be a valuable tool in reducing risk to officers, the suspect(s), and the public, as it provides an aerial view of the area where potentially armed suspects could secrete themselves. Additionally, the use of a sUAS at the scene of a “high-risk” search warrant mitigates exposure of officers on the perimeter of such locations where a suspect may be hiding and armed.

Additionally, it is recommended that the Department replace the DJI Spark with the DJI Mavic Enterprise Dual, as described in “Technology Updates Within the sUAS Program.” The sUAS technology is evolving at an exponential rate and it is important to take advantage of technological leaps when they improve upon safety and usability. Any future requests to update the sUAS fleet will be made through the current BOPC request and approval process.

It is further recommended that personnel assigned to Emergency Services Division (ESD), Hazardous Devices and Materials Section (HDMS), herein after referred as “Bomb Squad”, and Hazardous Materials Unit (HMU) be trained and authorized to deploy sUAS as delineated in the sUAS deployment guidelines. Doing so would allow ESD personnel to operate independently, without the need to rely on SWAT personnel for deployment of a sUAS. Small Unmanned Aerial Systems deployment at such calls for service will greatly enhance the ability to safely resolve dangerous, high risk exposure incidents involving suspected or known hazardous devices or materials and improve upon current radiological detection capabilities. Small Unmanned Aerial Systems deployment by Bomb Squad and HMU personnel will specifically enhance the current assessment capabilities through improved recognition and identification. A sUAS would reduce the amount of time required for an assessment and in identifying potential hazards, thus providing a quicker resolution. This will also greatly enhance officer safety by minimizing exposure time and maximizing distance from the hazardous device or material. Bomb Squad and HMU personnel are also tasked with conducting pre-event sweeps at mass gatherings and high profile events using radiation detection meters. A sUAS outfitted with a radiation detection meter will greatly improve the speed and efficiency of radiation detection sweeps and atmospheric monitoring. It will also enhance the ability and efficiency of delineating “hot zone” boundaries by conducting a fly over instead of having to drive or walk the perimeter to make the determination.

CONCLUSION

During the year-long pilot program, SWAT had a combined total of 78 call-outs and high risk warrant services. Small Unmanned Aerial System deployment approval was sought and received on six of these incidents. Each of the six incidents presented a unique set of circumstances whereby the sUAS was a viable option in the resolution of the overall situation. However, the two non-deployment incidents showcased the Department's ability and willingness to continually monitor the circumstances of each incident as it was evolving and evaluated all available options. In those two incidents, approval was granted but the sUAS was not deployed because other options became available, which provided the desired result and resolution. This is indicative of the Department's sensitivity to the community's privacy concerns and its commitment to utilizing the sUAS only when necessary. Furthermore, this emphasizes the Department's commitment to established guidelines and procedures while upholding the spirit and intent. The four executed sUAS deployments highlighted the benefits and contributions of the sUAS in resolving incidents of high risk and liability in a safe, efficient and expeditious manner.

Small Unmanned Aerial Systems provide invaluable information to decision makers while decreasing the risk to human life. For example, in the last deployment, the armed suspect originally refused to submit to arrest despite being surrounded by SWAT personnel and an orbiting airship. The sUAS was deployed at the entrance of the open trailer in which the suspect was hiding. Within minutes of the deployment, the suspect surrendered to the officers at scene, potentially avoiding a use of force by the officers in addition to avoiding injury to both the officers and the suspect. Additionally, the sUAS potentially provides an actual cost-savings to the Department by reducing the time during which officers are deployed at these incidents and potentially negating the use for costlier alternatives. Codifying a standing sUAS program into Department standard operating procedures will improve officer and community safety and enhance efficiency through reduced resource consumption and increased mobility and speed.

Upon approval of the sUAS program, the Department will provide annual reports on sUAS flights and deployments. Annual reporting will commence with fiscal year 2019/20 and will be submitted to the BOPC in July of 2020.

If additional information regarding this report is required, please contact Captain Sean Parker, Commanding Officer, Air Support Division, at (213) 486-8780.

Respectfully,



MICHEL R. MOORE
Chief of Police

Attachments

LOS ANGELES POLICE DEPARTMENT
SMALL UNMANNED AERIAL SYSTEM PILOT PROGRAM
DEPLOYMENT GUIDELINES AND PROCEDURES

The Department intends to implement a one-year pilot program to evaluate whether a small unmanned aerial system (sUAS) will enhance the ability of LAPD's Metropolitan Division, Special Weapons and Tactics team to safely resolve dangerous, high-risk tactical situations and improve situational awareness capabilities during natural disasters and catastrophic incidents.

BACKGROUND

Public safety agencies throughout the United States have been using sUASs to provide critical real-time information and situational awareness during volatile and life-threatening incidents. For example, law enforcement agencies have successfully used sUASs to detect explosives, assess hazardous materials incidents, respond to major disasters, assist with hostage rescues, respond to armed and barricaded suspect calls, and find survivors during search and rescue operations.

The deployment of an sUAS will enhance the Department's ability to protect and serve the public. It can be effective as a de-escalation tool in preservation of life situations, to identify suspect locations that otherwise would be inaccessible without the introduction of an armed officer or K9, and to locate victims in active shooter or mass casualty incidents thus increasing the ability to render assistance more quickly—all strategic operational goals consistent with the Department's guiding principle of reverence for human life.

The Department conducted an extensive review of existing sUAS policies, procedures and legal restrictions to develop guidelines and procedures that consider community concerns and privacy interests. The Department remains steadfastly committed to protecting the community and ensuring public safety by adhering to the law and building public trust. Accordingly, this pilot program will be strictly controlled and monitored with appropriate oversight by the Board of Police Commissioners and its Office of the Inspector General.

DEFINITIONS

Small Unmanned Aerial System (sUAS) refers to a remotely-operated, lightweight aircraft and its associated components.

The Special Weapons and Tactics Team (SWAT) is a highly trained and specialized cadre of Department personnel under the command of Metropolitan Division and the Counterterrorism and Special Operations Bureau (CTSOB). SWAT personnel respond to high-risk tactical

incidents including hostage situations, active shooter incidents, and counterterrorism operations, and are trained to operate specialized equipment and technology to safely resolve incidents.

The Program Manager is a supervisor assigned to Air Support Division (ASD) responsible for ensuring compliance with laws and regulations, acquiring Federal Aviation Administration (FAA) waivers and certificates of authorization, training of sUAS operators, and providing information and assessments for the evaluation of the pilot program.

sUAS Deployment Log is the written documentation report completed by the officer in charge (OIC) of SWAT after the approval or denial of an sUAS at the scene of a tactical incident (Addendum 1).

The Remote Pilot in Charge (RPIC) is a specially-trained SWAT officer holding a remote pilot certificate with an sUAS rating and who is responsible for the safe operation of the sUAS.

The Office of Special Operations Commission Liaisons are two members of the Board of Police Commissioners designated by the Commission President to review the Department's use and deployment of the sUAS.

RESPONSIBILITIES

The sUAS will be assigned to the RPIC only and operated in coordination with the Program Manager from ASD.

SWAT personnel will be responsible for the safe operation of the sUAS during approved deployments and for documenting the use and deployment of the aircraft.

The Office of Special Operation's Counter-Terrorism and Special Operations Bureau will be responsible for the oversight and evaluation of the sUAS Pilot Program.

APPROVAL FOR DEPLOYMENT

Any deployment involving the use of an sUAS shall be approved by the on-scene or responding CTSOB or Office of Special Operations Staff Officer (i.e., Commander or above) and the Commanding Officer (i.e., Deputy Chief) of CTSOB. In addition, after deployment has been approved by the CTSOB Commanding Officer, notification shall be made to the Director (i.e., Assistant Chief), Office of Special Operations, the Chief of Police, and the Office of Special Operations Commission Liaisons.

PERMISSIBLE USES

An sUAS may be deployed to provide enhanced situational awareness solely during the following circumstances or types of incidents:

- Barricaded Suspects;¹
- Active Shooter Incidents;
- Assessments of Explosive Devices and Explosions;
- Hostage Situations;
- Natural Disasters;
- Hazardous Materials Incidents;
- Search and Rescue Operations; and,
- Perimeter Searches of Armed Suspects with Superior Firepower, an Extraordinary Tactical Advantage, or Who are Wanted for Assault with a Firearm Against a Police Officer.

PROHIBITED USES

An sUAS shall not be deployed or used in violation of the law or Constitution. Unless a lawful exception applies, Department personnel shall obtain a search warrant or other lawful process when required under the Fourth Amendment or other provision of the law.

An sUAS shall not be deployed when weather conditions or other hazards prevent the safe operation of the aircraft. In addition, an sUAS shall not be deployed in a manner that exceeds the manufacturer's recommendations.

An sUAS shall not be deployed or used with any weapons capabilities including any non-lethal or less-than-lethal weapon systems.

An sUAS shall not be deployed or used with any facial recognition software or analysis capabilities.

¹ The SWAT response criteria for a barricaded suspect is as follows:

1. The suspect is probably armed; **and**
2. Probable cause exists to believe that the suspect has been involved in a criminal act **or** is a threat to the lives and safety of the community and/or police; **and**
3. Is in a position of advantage, affording cover and/or concealment; **or** is contained in an open area and the presence or approach of police officers could precipitate an adverse reaction by the suspect; **and**
4. The suspect refuses to submit to a lawful arrest.

VIDEO RECORDINGS

Absent exigent or unexpected circumstances, such as a malfunction or technical issue, the RPIC shall ensure that video transmissions from the sUAS are recorded and retained in accordance with City retention requirements. All video captured pursuant to the sUAS program shall be subject to the same requirements and restrictions of the Digital In-Car Video and Body-Worn Video programs.

DOCUMENTATION AND INSPECTION PROCEDURES

The request and approval or disapproval of an sUAS deployment shall be documented in an sUAS Deployment Log by the assigned SWAT OIC.

After each deployment of an sUAS, the assigned SWAT OIC shall complete the sUAS Deployment Log and ensure that a copy is forwarded to the Commanding Officer, CTSOB and Director, Office of Special Operations within two business days after the incident has been resolved. The Office of Special Operations shall also forward a copy of the sUAS Deployment Log to the Office of Special Operations Commission Liaisons and the Office of the Inspector General.

The Program Manager shall conduct a monthly inspection of logged missions that will compare data downloaded from the sUAS to ensure all flight time, including training flight time, is accounted for. The inspection will include the total number of missions for the reporting period, total flight time for the reporting period, and matrix of mission purposes. A copy of the monthly inspection report shall be forwarded to the Commanding Officer, CTSOB and Director, Office of Special Operations. The Office of Special Operations shall also forward a copy of the report to the Office of Special Operations Commission Liaisons and the Officer of the Inspector General.

STATUS REPORTS AND PROGRAM EVALUATION

The Department will provide quarterly status reports to the Office of Special Operations Commission Liaisons on the use and deployment of an sUAS and a copy of the report, with any necessary redactions, shall also be submitted to the Board of Police Commissioners and publicly released.

At the end of the pilot program, the Department will provide a Final Report on the Evaluation of the sUAS Pilot Program to the Board of Police Commissioners. The Final Report will be reviewed by the Chief of Police and the Office of Special Operations Commission Liaisons prior to a public presentation to the Board of Police Commissioners and shall include:

- An analysis of the use of an sUAS, including results of monthly audits measuring performance relative to the adherence of deployment and accountability rules;

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- The number of sUAS deployments;
- The types of situations in which an sUAS was deployed;
- The overall results and effectiveness of an sUAS in resolving incidents;
- Whether an sUAS mitigated the risk of harm to officers, suspects, and the public;
- Whether deployment of an sUAS reduced costs associated with responding to similar incidents; and,
- Recommendations on whether the use of an sUAS should be continued and, if so, any modifications to these guidelines or other policies and procedures that should be considered.

PILOT PROGRAM TIME PERIOD

Subject to the approval of these guidelines by the Board of Police Commissioners, the Department shall have one year to deploy an sUAS consistent with these guidelines. The one-year period shall begin on the date the first sUAS is granted a Certificate of Aircraft Registration by the Federal Aviation Administration.

SMALL UNMANNED AERIAL SYSTEM DEPLOYMENT AND APPROVAL



SWAT OIC REQUESTS
APPROVAL TO DEPLOY VIA

COMMANDING OFFICER
METRO DIVISION

OSO/CTSOB
STAFF OFFICER

COMMANDING OFFICER
CTSOB

YES NO

sUAS
Deployment Log

Within 2
Business Days

CTSOB

Within 2
Business Days

OSO

ORIGINAL TO
PROGRAM
MANAGER

COPY TO
INSPECTOR
GENERAL

COPY TO
POLICE
COMMISSION
LIAISON

DIRECTOR
OSO

CHIEF OF POLICE

OSO COMMISSION
LIAISONS