REQUEST FOR CITY COUNCIL ACTION

MEETING DATE: SEPTEMBER 25, 2018

TITLE: CONSIDERATION OF THE DEPARTMENT OF PUBLIC SAFETY UNMANNED AIRCRAFT SYSTEM TEAM

RECOMMENDED ACTION

Approve the Department of Public Safety's request to establish an Unmanned Aircraft System (UAS) Team.

EXECUTIVE SUMMARY

The Department of Public Safety is seeking City Council approval to establish a UAS Team to enhance public safety. Four trained Public Safety personnel will serve on the UAS Team as a collateral assignment. If the City Council decides to support the development of a four-member UAS Team, the initial start-up cost would be approximately $29,000. This estimate is based on the purchase of two unmanned aircraft, one thermal camera, associated equipment, and initial training costs.

COMMISSION/BOARD/COMMITTEE RECOMMENDATION

Not Applicable.

ANALYSIS

An unmanned aircraft system (UAS) is an unmanned aircraft and the equipment necessary for the safe and efficient operation of that aircraft. An unmanned aircraft (UA; or typically referred to as a drone) is a component of a UAS. It is defined by statute as an aircraft that is operated without the possibility of direct human intervention from within or on the aircraft (Public Law 112-95, Section 331(8)). In June 2016, the Federal Aviation Administration (FAA) enacted Part 107 of the Code of Federal Regulations, Chapter 14, to regulate the use of UAS. Part 107 took effect in August 2016 and provides procedures and requirements for the recreational use of drones, the commercial use of drones and the use of drones by government agencies.

A drone is a useful and cost effective tool for law enforcement. A UAS Team would benefit the City of Irvine by serving the needs of the communities within its 66 square miles of diverse geography. A drone can be deployed in confined areas where helicopters cannot
fly and emergency personnel cannot respond due to the environment being unstable. If approved, planned applications of this technology include:

- safely and efficiently survey a crime scene or major traffic collision scene;
- provide aerial photography for social media and/or public relations purposes;
- assist in natural disaster evaluation and response;
- search for suspects, articles and missing persons in established perimeters or search zones;
- map and identify wildlife paths of travel;
- perform roof checks at burglar alarms where access is difficult; and
- increase situational awareness during SWAT operations or high-risk warrant services.

On May 28, 2018, the Center for the Study of the Drone at Bard College published an updated article on the use of drones by public safety agencies. The study identified 910 agencies in the United States that acquired one or more drones, compared to 338 agencies who own manned aircraft. There are 80 agencies nationally that own both drones and manned aircraft. There are currently 58 public safety agencies in California that own one or more drones. Public safety agencies in this study include police and fire agencies at the city, county and state levels.

The Department of Public Safety's policy on UAS will provide strict guidelines on proper and legal deployments of a drone. Prohibited uses of a department drone include:

- the surveillance of any person(s) who are not suspects in an active criminal investigation;
- monitoring or recording lawful protests, demonstrations or other public expressions of free speech;
- following suspect vehicles evading law enforcement;
- routine warrant service;
- traffic enforcement purposes;
- boxing-in or blocking the path of a suspect or any other person; and
- arming the drone with a weapon.

Safety: The UAS Team will adhere to a number of operating measures to ensure the safety of the public and Department of Public Safety personnel. In order to operate a UAS, operators will be licensed by the FAA. FAA-required flight safety standards will be followed and contingency plans will be in place for any emergency situation. The UAS Team will perform pre-flight safety checks, maintain specific safety parameters during flight and use safe and proper landing protocol. All drones have collision avoidance technology to assist with automatically landing safely in adverse conditions, such as loss of communication with the pilot on the ground. In the event of a collision, the UAS Team will follow FAA guidelines and department policy for reporting a collision involving a drone.
Every drone deployment will have a safety officer assigned who will be responsible for identifying any safety-related concerns and any corrective actions needed. The safety officer will reinforce that safety is the responsibility of all members of the UAS Team. The minimum number of personnel needed for a deployment of the drone is two, with additional personnel required for more dynamic situations to ensure the safety of the public and department personnel.

Training: Prior to deploying a drone in the community, personnel assigned to the unit will receive specific legal and practical training to obtain the required FAA license to operate a drone for a public agency. All members of the UAS Team will maintain proficiency by participating in monthly training. The training will include a qualification course and skills-based exercises consistent with Public Safety deployment scenarios. The initial team will consist of four members, and Public Safety will consider adding members to the team in the future based on need.

Insurance: The California Insurance Pool Authority provides insurance coverage when the drone operator is licensed or under the direct supervision of a person who holds a license, and when the drone is operated in full compliance with FAA rules and regulations applicable to drone deployments.

Equipment: The equipment needed to implement a UAS Team would include two drones and one camera.

Privacy and Data: To the extent possible, any camera onboard a drone will be pointed away from occupied structures and uninvolved persons, and no pictures or recordings will be made during flight to and from an approved deployment location. The drone will not record or take pictures unless it is for an authorized deployment, and all recordings will be reviewed for evidentiary value. Any items of evidentiary value shall be downloaded and booked as evidence under the related case number.

Public Safety's draft policy for Unmanned Aircraft Systems is attached for your review.

ALTERNATIVES CONSIDERED

The City Council may wish to defer the establishment of a UAS Team and consider one in the future.

The City Council may impose additional policy restrictions or guidelines for drone deployment.

The City Council may choose not to approve a UAS Team, in which case the Department of Public Safety will continue to utilize contracted police helicopter services when available.
FINANCIAL IMPACT

Start-up Costs: The one-time start-up cost to establish a UAS Team with two drones is approximately $29,000. This cost includes batteries, chargers, a thermal imaging camera, and initial training. If approved, the start-up costs for training will be absorbed in the Department of Public Safety Fiscal Year 2018-19 General Fund training budget, while the cost of the drone and related equipment will be funded through existing Special Funds.

Future Equipment Costs: Additional drones or related equipment will be budgeted in future years as needed to support the program's needs.

Recurring Training Costs: When possible, monthly training will be scheduled during the UAS Team's regular work hours. Otherwise, training costs will be absorbed in Public Safety's existing overtime budget.

REPORT PREPARED BY: Tim Schilling, Police Sergeant
Bill Bingham, Police Lieutenant

ATTACHMENTS:

1. Unmanned Aircraft Systems Draft Policy
2. PowerPoint Staff Presentation
Unmanned Aircraft System (UAS)

348.1 PURPOSE AND SCOPE
The mission of the Irvine Police Unmanned Aircraft System (UAS) is to assist police personnel in enhancing public safety while protecting the rights and privacy of the general public.

Irvine Police Department personnel shall make every effort to avoid invading a person's reasonable expectation of privacy when operating a UAS. When operating a UAS, the Department will abide by all Federal Aviation Administration (FAA) regulations for flight and will obtain the proper authorization for flight. Additionally, the need, availability and use of the UAS will not supersede the issuance of a warrant when otherwise required.

Managers, supervisors, operators and visual observers involved in the deployment of a drone will consider the protection of individuals' civil rights and reasonable expectation of privacy as a key component of any decision made to deploy the drone. UAS Remote Pilot in Command, Pilots and Visual Observers will ensure operations of the UAS intrude as little as possible upon those who live, work and visit the City of Irvine.

348.2 POLICY
To accomplish this primary goal, the Department will adhere to the following:

**Authorized uses of Department UAS include:**

1. Aerial photography and video for:
   (a) Static crime scenes or traffic collision investigations for evidence collection purposes
   (b) Social media, marketing materials and publications for public relations purposes.
2. Natural disaster evaluation and response.
3. Searches for missing persons, suspects or articles (such as weapons) within established police perimeters or search zones when deployment is intended to enhance the safety of officers, suspects, victims or the community at large.
4. Enhancement of animal and officer safety by mapping and identifying wildlife paths of travel in unpopulated areas.
5. Roof checks in response to burglar alarms or calls for service, where access is difficult, and when deployment is intended to enhance the safety of officers, suspects, victims or the community at large.
6. Deployment during SWAT operations or high-risk warrant service when deployment is intended to enhance the safety of officers, suspects, victims or the community at large.
7. Training in an environment closed to the public.

When the drone is being flown pursuant to any authorized use above, the onboard cameras will be turned to face away from occupied structures as feasible or the recording function will be turned off to minimize inadvertent video or still images of uninvolved persons. However, it is recognized
that under certain exigent circumstances threatening public or officer safety, the aforementioned efforts may not always be possible or appropriate.

**Unauthorized uses of Department UAS include:**

1. Surveillance of any person or persons who are not suspects in an active criminal investigation.
2. Monitoring, photographing or videoing lawful protests, demonstrations, rallies, marches or other expressions of free speech.
3. Routine usage of UAS by police personnel for searches or area checks when less intrusive methods are available and can be achieved without compromising public safety.
4. Following suspects who are evading law enforcement.
5. Routine warrant service (a warrant service that does not involve SWAT and is not considered “high risk,” as determined by an Investigations Lieutenant or SWAT commander).
6. Traffic enforcement purposes (i.e., drone will not be used to covertly monitor intersections for traffic violations or pace vehicles to calculate speed).
7. Boxing-in, or blocking the path of any suspect or any other person.
8. Arming any drone with any form of lethal or less-lethal weapon.

Notwithstanding the uses or restrictions above, the Chief of Police or his or her designee must approve any other use.

### 348.2.1 DEFINITIONS

1. Federal Aviation Administration (FAA). The national aviation authority of the United States, with powers to regulate all the aspects of aviation in the U.S.
2. An Unmanned Aircraft System (UAS) is an unmanned aircraft and the equipment necessary for the safe and efficient operation of the aircraft. An unmanned aircraft is a component of a UAS. It is defined by statute as an aircraft that is operated without the possibility of direct human intervention from within or on the aircraft (Public Law 112-95, Section 331(8)).
3. UAS Pilot is the person who is piloting (physically) the flight of the UAS.
4. UAS Team is the team of authorized personnel associated with operation of Unmanned Aircraft Systems.
5. UAS Visual Observers (VOs) are ground-based observers who assist with operations and will assist the remote pilot in command (RPIC) to utilize the “see and avoid” technique by scanning the area for air traffic or possible hazards.
6. Remote Pilot in Command (RPIC) is the person who is ultimately responsible for the safe operation of the UAS and the public’s safety during the flight whether physically piloting the UAS or monitoring another authorized pilot.
348.3 MANAGEMENT / SUPERVISION OF UNMANNED AIRCRAFT SYSTEM (UAS)
The Department Operations Commander shall serve as the UAS Team’s supervisor and is responsible for the overall management of the team. Given the technical nature of aviation, the UAS Team’s supervisor may, at his or her discretion, assign responsibility for UAS operations to a Team Leader with the necessary knowledge, skills and abilities to safely and effectively manage the day-to-day operation of the UAS Team.

In consultation with the UAS Team Leader, the deployment of a UAS shall only be for authorized missions and by the approval authority depicted in the below matrix:

<table>
<thead>
<tr>
<th>Authorized UAS Missions</th>
<th>Approval Authority</th>
<th>Deployment Guideline</th>
</tr>
</thead>
<tbody>
<tr>
<td>Photography for social media, Department publications and branding</td>
<td>Communications Manager</td>
<td>Static</td>
</tr>
<tr>
<td>Natural disaster evaluation and response</td>
<td>Lieutenant</td>
<td>Dynamic</td>
</tr>
<tr>
<td>Mapping crime scenes and traffic collision investigations</td>
<td>Detective Lieutenant, Traffic Lieutenant, Detective Sergeant or Traffic Sergeant</td>
<td>Static</td>
</tr>
<tr>
<td>Search for missing person(s)</td>
<td>Lieutenant</td>
<td>Dynamic</td>
</tr>
<tr>
<td>Animal Services mapping and location of wildlife paths of travel in unpopulated areas</td>
<td>Support Services Commander</td>
<td>Static</td>
</tr>
<tr>
<td>Deployment during Special Weapons and Tactics (SWAT) operations or high-risk warrant service</td>
<td>Investigations Lieutenant, SIU Lieutenant or SWAT Lieutenant</td>
<td>Dynamic</td>
</tr>
<tr>
<td>Training</td>
<td>Lieutenant</td>
<td>Static</td>
</tr>
<tr>
<td>Roof checks in response to burglar alarm calls for service</td>
<td>Field Sergeant</td>
<td>Static</td>
</tr>
<tr>
<td>Searches for suspects or articles such as weapons within established police perimeters</td>
<td>Field Sergeant</td>
<td>Dynamic</td>
</tr>
<tr>
<td>Any other use</td>
<td>Chief of Police or his/her designee</td>
<td>As Directed</td>
</tr>
</tbody>
</table>

348.4 DEPLOYMENT GUIDELINE:

**Static**

A static situation is one in which the UAS could be deployed in an environment controlled by members of the Department and in a manner that is relatively non-intrusive to the general public, yet provides a benefit and value to the Department and its mission. A static situation must meet the following requirements:
Unmanned Aircraft System (UAS)

1. The area under the airspace where the UAS is operating is clear of persons who are not directly participating in the operation of the UAS unless they are in a stationary vehicle or structure that can provide reasonable protection from a falling UAS (FAA Part 107.39).

2. Steps must be taken to exclude non-participatory persons from entering the area under the UAS operation.

3. The incident that precipitated the UAS deployment is not an in-progress crime or a search for a person (suspect or otherwise).

4. Deployment of the UAS in a static situation would require at least two personnel:
   (a) Remote Pilot in Command (RPIC)
   (b) Visual Observer (VO)
   (c) Additional personnel may be required based on the evaluation of the operation by the RPIC (such as a cover officer for the UAS team).

**Dynamic**

A dynamic situation is one in which the drone could be deployed in a less than stable or volatile situation. The area under the UAS may not be completely secured by Department personnel and, therefore, may require flying over persons or under rapidly changing conditions. These may include situations that involve imminent threat to life or great bodily injury. A dynamic situation will require increased situational awareness and coordination with the UAS Team members and the Incident Commander. A dynamic situation is any situation that does not meet the definition of a static situation. Examples of a dynamic situation include, but are not limited to:

1. Any incident involving a SWAT callout, or SWAT/Crisis Negotiation Team (CNT) involvement.
2. Any incident involving the use of a UAS for Search and Rescue (SAR).

Personnel guidelines for deployment of the UAS in a dynamic situation:

1. As in a static situation, there must be at least two team members, a RPIC and a VO, assigned to the operation.
2. Due to the volatile and changing nature of a dynamic situation, it is very likely that more personnel will be required to safely and effectively execute the mission.
3. Additional considerations:
   (a) Additional VOs may be needed due to buildings and other obstructions.
   (b) Cover officer(s) to ensure the safety of the operation within the context of the specific incident and security of the UAS Team.
   (c) It may be preferable to locate the UAS Landing Zone/Base of Operation away from the Command Post.
   (d) Reliable method of communication between RPIC and VOs.
   (e) A dedicated VO to operate the camera on the UAS.
348.5 UAS TEAM LEADER

The UAS Team Leader is responsible for the following:

1. Ensuring all UAS Team members understand applicable regulatory requirements, standards, and organizational safety policies and procedures.
2. Observe and control safety systems through monitoring and supervision of UAS Pilots and Visual Observers.
3. Measure RPIC and VO performance and compliance with organizational goals, objectives and regulatory requirements.
4. Review the standards and practices of agency personnel as they impact flight safety.
5. Ensure that RPICs, Pilots and VOs receive the proper training to fulfill the duties of their respective roles.
6. Act as the Flight Safety Officer or designate a member of the UAS Team to fulfill the role of the Flight Safety Officer. The Flight Safety Officer will provide the UAS Team with up-to-date safety information, conduct training session debriefs, identify safety-related concerns and corrective actions, and reinforce that safety is the responsibility of all members of the UAS Team.

348.6 UAS PILOTS AND VISUAL OBSERVERS

UAS Team must acquire a valid FAA Part 107 Certification within 120 days of joining the UAS Team. On any given mission, a UAS team member may be called upon to perform the duties of either a UAS Pilot or a UAS Visual Observer. UAS Team members must maintain proficiency in the operational standards of both positions. The Chief of Police is responsible for determining the number of certified personnel necessary to best serve the Department’s needs.

The primary duty of a UAS Pilot is to operate the drone in a safe and effective manner in accordance with FAA regulations and Department procedures. Pilots must remain knowledgeable of all of the above guidelines at all times.

The primary duty of a VO is to coordinate operations between the UAS and ground personnel. The VO will also identify risks to police personnel, the public and property (including the drone), and take immediate steps to coordinate with the RPIC to mitigate or avoid those risks.

In order to fly a mission (other than flights required for training or currency), pilots must have completed three (3) currency events within the previous 90 days. Currency events include landings, takeoffs and simulator flights.

348.7 UAS FLIGHT CREW RESPONSIBILITIES AND COORDINATION

348.7.1 UAS REMOTE PILOT IN COMMAND RESPONSIBILITY

1. The UAS Remote Pilot in Command, in conjunction with the approving authority, is directly responsible for and is the final authority over the operation of the UAS.
2. UAS Pilots and Remote Pilots in Command have the absolute authority to reject a flight due to weather, aircraft limitations or physical conditions. No member of the
Department, regardless of rank, can order a UAS Pilot to conduct a flight when, in the opinion of the Pilot, it would be too unsafe to do so.

3. UAS Pilots are responsible for compliance with FAA regulations and the Department UAS Policy.

4. Pilots shall communicate as warranted with Air Traffic Control (ATC) and other aircraft. When under the control of ATC, the Pilot will not monitor law enforcement radio communications.

5. Pilots shall be responsive to the requests of the UAS Visual Observer in order to accomplish the mission.

6. Pilots shall be responsible for documentation for mission training and updating of flight books.

348.7.2 UAS VISUAL OBSERVER RESPONSIBILITY

1. See and avoid any obstacle that will reduce safety during the mission or training.

2. UAS Visual Observers are responsible for the law enforcement aspect of the deployment.

3. Operate any attachments to the drone, allowing the UAS Pilot to maintain complete focus on the operation of the drone.

4. Remain alert for suspicious persons or activities on the ground and coordinate response by ground units. UAS Visual Observers shall monitor radio updates.

5. Assist the UAS Pilot to achieve safe operation of the drone.

348.7.3 UAS FLIGHT CREW COORDINATION

1. The UAS Pilot and UAS Visual Observer will work closely to form the crew that will ultimately accomplish mission objectives.

2. The UAS Pilot and UAS Visual Observer are the custodians of evidence. In this capacity, they are responsible for the safeguarding and proper processing of any evidence including, but not limited to, digital imagery to include still and video images.

3. In the interest of safety, both the UAS Pilot and Visual Observer must be comfortable with any decision made while working as a crew. This begins when deciding whether to accept the mission and continues throughout the mission.

4. Every UAS crew member has an obligation to communicate any concerns to the UAS Team Leader, Remote Pilot in Command or UAS supervisor prior to flight.

5. UAS Visual Observers have the right, as well as the responsibility, to question the UAS Pilot whenever they do not understand something, or are uncomfortable with certain procedures, weather, mission parameters, etc.

348.8 PREFLIGHT AND FLIGHT PROCEDURES
348.8.1 PREFLIGHT PROCEDURE
Preflight procedures will be conducted prior to each flight mission and will be done in accordance with the checklist prepared by the Department UAS Team Leader and in accordance with the manufacturer’s recommendations. Any issues found during the preflight procedures should be documented in the UAS log and it will be the decision of the UAS Pilot to determine if the issue will alter the safe flight and operation of the drone.

348.8.2 LAUNCH PROCEDURES
1. Prior to the launch of the drone, the Pilot is responsible for ensuring the checklist is completed and the aircraft ground station is safe to operate.
2. The UAS Pilot will communicate with the Visual Observer to confirm the area is visibly clear of any low-flying air traffic, hazardous obstacles or safety hazards prior to takeoff.
3. As warranted, the UAS Pilot is responsible for notifying the John Wayne Air Traffic Control Tower (or other appropriate FAA facility), in accordance with the rules and guidelines set forth by the FAA.

348.9 POSTFLIGHT AND FLIGHT PROCEDURES
348.9.1 POST LAUNCH
1. Although the drone can fly autonomously, the UAS Pilot and Visual Observer will monitor the aircraft, base station and payload systems to ensure the drone is flying as designed and maintains the proper altitude.
2. After takeoff, UAS crew members shall perform tasks according to their job assignment, while communicating clearly and effectively to monitor the drone as it climbs to the desired mission altitude.

348.9.2 LANDING PROCEDURES
1. The Pilot will determine if the objectives of the mission are complete or if the mission is too unsafe to continue prior to landing the aircraft.
2. The Pilot will confirm with the Visual Observer as necessary that the flight path to the “return home” location is clear prior to giving the command for the UAS to “return home.”
3. The Visual Observer will monitor the aircraft as it is landing to ensure a proper landing. If the aircraft is not landing as desired or commanded, the VO will notify the Pilot, who will determine whether to abort the landing.
4. As warranted, it will be the responsibility of the RPIC to ensure contact with the John Wayne Air Traffic Control Tower or proper tower in accordance with FAA guidelines to advise completion of the mission.

348.10 UAS COLLISIONS
1. If a collision occurs during the operation of the UAS and results in serious injury to any person, any loss of consciousness, or if it causes damage to any property (other
Unmanned Aircraft System (UAS)

than the UAS) in excess of $500 to repair or replace the property, notification shall be made to the Flight Standards District Office located in Long Beach within 10 days, per FAA guidelines.

(a) Flight Standards District Office for Orange County https://www.faa.gov/about/office_org/field_offices/fsdo/lgb/

1. Long Beach Flight Standards District Office (562) 420-1755 - Office Address: 5001 Airport Plaza Drive, Long Beach, CA 90815

2. While at the scene, the Remote Pilot in Command shall notify the UAS supervisor or the Incident Commander, who shall respond to photograph or direct CSI to photograph the collision scene and any resulting injuries or property damage. The Remote Pilot in Command shall be responsible for completing an Incident Report to the UAS Supervisor describing the incident and damage. If the collision results in less than $500 in damage, or the only damage is to the UAS, an Incident Report shall be completed by the Pilot and notification to the UAS Supervisor shall be made. In either case, the UAS Supervisor shall conduct or direct a review of the collision and determine if the collision could have been prevented through maintenance, training, etc., and ensure all necessary paperwork has been submitted. As warranted, the UAS Supervisor should contact the City’s Risk Management Administrator.

348.11 MAINTENANCE
A properly maintained UAS is essential to its safe operation. Compliance with the preflight checklist, postflight inspection and the immediate repair of mechanical problems will ensure the availability and safety of the Department’s UAS.

The UAS Team Leader will designate a UAS Maintenance Officer who will coordinate maintenance for the UAS. This assignment can be in addition to other duties of a team member or someone outside the UAS Team. If possible, maintenance will be scheduled when it will have the least impact on operations. The Maintenance Officer shall notify the UAS Supervisor and UAS Team Leader of the operational status of the UAS. The Maintenance Officer shall be responsible for keeping the UAS maintenance record updated.

348.12 TRAINING

1. All members within the UAS Team who will act as a UAS Pilots, RPICs or VOs, shall be trained and will maintain proficiency in their pilot/observer abilities. Each UAS Team Member shall be a certified Part 107 operator in accordance with FAA requirements and standards within 120 day of joining the team. The UAS Pilot will stay proficient in the job function by participating in monthly scheduled Department training sessions. During these training sessions, the UAS Pilot will be required to fly a qualification course with a passing score. All members of the UAS Team will maintain proficiency by participating in monthly training. The training will include a qualification course and skills-based exercises consistent with Public Safety deployment scenarios. A UAS Pilot who does not have any documented training or flight time within a span of 90 days (due to vacation, court appearance, etc.) will have to show proficiency prior to any deployment, and the Supervisor or Team Leader may suspend his/her duties until the
Pilot has had updated training and completed a qualification course. The UAS Pilot can also utilize a simulator program (if available and with approval) to stay proficient if there are scheduling issues or a lack of flight training due to weather.

2. **Data Retention:** With the exception of training and demonstration purposes, when the UAS is utilized to capture video or still images the recordings shall be reviewed for evidentiary value. Any items of evidentiary value shall be downloaded and booked as evidence under the related case number. Audio and/or images captured by a UAS and booked as evidence shall be retained in accordance with Department Property and Evidence Policy 8.02.

3. **Documentation:** The UAS Remote Pilot in Command or an involved crew member shall document all flights on a UAS Utilization Form. The documentation shall, at minimum, include:
   
   (a) All flight times, hours and locations (flight path if available)
   
   (b) Reason for the flight
   
   (c) Roles of the personnel and name of approving supervisor
   
   (d) Any additional relevant information to the mission

4. **Statistics:** The UAS Team Leader should submit statistics to the UAS Commander for review each month. These reports should include:
   
   (a) Number of flights
   
   (b) Personnel involved
   
   (c) Total flight time
   
   (d) Any maintenance completed
   
   (e) The number of flights resulting in the collection and retention of data and any additional relevant information regarding missions performed
   
   (f) Training exercises

348.13 **STORAGE**

UAS and associated equipment shall be stored in a secured location within the Irvine Police Department or approved offsite location and UAS shall not be operated for personal use.
Proposed Uses

- Aerial photography and video for:
  - Static crime scenes or traffic collisions
  - Social media and public relations purposes
- Natural disaster evaluation
- Searches for missing persons, suspects or articles
- Mapping wildlife paths of travel
- Roof checks in response to burglar alarms
- Deployment during SWAT operations or high-risk warrants
Prohibited Uses

- Surveillance of anyone who is not a criminal suspect
- Monitoring lawful demonstrations
- Pursuing vehicles
- Routine warrant service
- Traffic enforcement purposes
- Boxing-in or blocking the path of any person
- Arming the drone with any weapon
Privacy and Data Retention

• IPD respects the privacy rights of our community

• IPD will not retain any images or video that is not of evidentiary value

• All evidence will be retained in accordance with existing City and Public Safety policy
Safety and Training

• Drones are equipped with an obstacle avoidance system
• Drone team will be licensed through the FAA Part 107
• Monthly training and required flight time
• Deployed in teams with preflight and postflight procedures
• Safety Officer will be assigned to each deployment
Program Administration

• Budget
  – Equipment and training: $29,000
    • Operational drone with thermal camera
    • Training drone
    • Chargers and extra batteries

• Risk Management
  – California Insurance Pool Authority provides insurance coverage when flown according to IPD proposed policy
  – Policy has been reviewed by City Attorney
Recommended Action

• Approve the Department of Public Safety’s request to establish an Unmanned Aircraft System (UAS) Team

• Alternatives
  – Defer establishment of a UAS Team
  – Impose additional policy restrictions for UAS deployment
  – Choose not to approve a UAS Team
RESIDENTIAL BURGLARY

SUSPECT PERIMETER
Irvine Police Department

Unmanned Aircraft System Team

Bill Bingham
Lieutenant

September 25, 2018