

Los Angeles County Sheriff's Department

Audit and Accountability Bureau



UNMANNED AIRCRAFT SYSTEMS AUDIT

COUNTYWIDE OPERATIONS –
SPECIALIZED OPERATIONS
DIVISION – SPECIAL
ENFORCEMENT BUREAU

Project No. 2021-7-A



Alex Villanueva, Sheriff

September 30, 2021

**LOS ANGELES COUNTY SHERIFF'S DEPARTMENT
Audit and Accountability Bureau**

**UNMANNED AIRCRAFT SYSTEMS AUDIT – COUNTYWIDE OPERATIONS
SPECIALIZED OPERATIONS DIVISION
SPECIAL ENFORCEMENT BUREAU
Project No. 2021-7-A
AUDIT REPORT**

PURPOSE

The Audit and Accountability Bureau (AAB) conducted the Unmanned Aircraft Systems (UAS) Audit – Countywide Operations – Specialized Operations Division – Special Enforcement Bureau (SEB) under the authority of the Sheriff of Los Angeles County. The audit was performed to determine how the Los Angeles County Sheriff's Department (Department) and the Special Enforcement Bureau (SEB) complied with the Manual of Policy and Procedures (MPP), SEB Unit Orders, and the Department's Certificate of Authorization (COA) filed with the Federal Aviation Administration (FAA).

The AAB conducted this audit under the guidance of the Generally Accepted Government Auditing Standards.¹ The AAB determined the evidence obtained was sufficient and appropriate to provide reasonable assurance for the results based on the audit objectives.

BACKGROUND

The Los Angeles County Board of Supervisors (BOS) requested a report from the Office of Inspector General (OIG) regarding the Department's planned usage of the UAS.² The BOS concurrently requested a report from the Civilian Oversight Commission (COC) to review and supplement the OIG report, and provide recommendations.³ On September 28, 2017, the COC presented its report and recommendations to the BOS.⁴

The COC presented ten recommendations, which the Department agreed to implement. Recommendation number seven states that the UAS program should be audited on at least an annual basis. This audit implements this recommendation for 2020 and 2021. The other recommendations and their status are outlined in the Additional Information section of this report.

¹ United States Government Accountability Office, Government Auditing Standards, July 2018.

² By unanimous approval of item 17, under consent calendar, Los Angeles County Board of Supervisors meeting January 24, 2017.

³ Los Angeles County Sheriff's Department Unmanned Aircraft System Evaluation, Office of Inspector General, County of Los Angeles, April 2017.

⁴ Revised Report of the Sheriff Civilian Oversight Commission Regarding the Unmanned Aircraft System Program of the Los Angeles County Sheriff's Department, September 2017.

**UNMANNED AIRCRAFT SYSTEMS AUDIT
SPECIAL ENFORCEMENT BUREAU
Project No. 2021-7-A**

METHODOLOGY

Scope

The Department's SEB is the only bureau authorized to deploy and use a UAS. The audit consisted of two main objectives, listed below, regarding the deployment of the Department's UAS. The applicable sections from the MPP, SEB Unit Orders, and the Department's COA filed with the FAA were used as criteria for the audit.

- **Objective No. 1 – Authorized UAS Deployment:** To determine if each UAS deployment was properly authorized and if the deployment met the applicable mission-type criteria.
- **Objective No. 2 – UAS Operating Requirements:** To determine if each UAS deployment was operated appropriately.

Audit Time Period

The audit time period was from January 1, 2020, through May 31, 2021.

Audit Population

The audit population consisted of 100% of all UAS deployments during the audit time period. Auditors identified and reviewed 14 UAS deployments.

This space intentionally left blank

**UNMANNED AIRCRAFT SYSTEMS AUDIT
SPECIAL ENFORCEMENT BUREAU
Project No. 2021-7-A**

AUDIT DETAILS AND RESULTS

Objective No. 1 – Authorized UAS Deployment

Objective No. 1(a) – Determine if Each UAS Deployment was Appropriately Authorized

Criteria

Manual of Policy and Procedures Section 5-09/570.10, Unmanned Aircraft System Procedures, (July 2018), states:

All requests for the use of the unmanned aircraft system (UAS) shall be evaluated and authorized or denied by the Special Enforcement Bureau (SEB) team commander.

Procedures

Auditors reviewed each UAS deployment's mission documentation to determine if it was appropriately authorized by a SEB team commander.

Results

All 14 (100%) UAS deployments met the criteria for this objective.

This space intentionally left blank

**UNMANNED AIRCRAFT SYSTEMS AUDIT
SPECIAL ENFORCEMENT BUREAU
Project No. 2021-7-A**

Objective No. 1(b) – Determine if the Deployment was for an Approved Mission Type

Criteria

Manual of Policy and Procedures Section 5-09/570.00, Unmanned Aircraft System, (July 2018), states:

*Authorized UAS operations are limited to emergency and life threatening situations, such as search and rescue missions, explosive ordnance detection missions, disaster response, barricaded suspects, hostage situations, active shooters, hazardous materials incidents, fire-related incidents, and other high-risk tactical operations. A UAS **shall not** be used for non-emergent surveillance missions or missions that would violate the privacy rights of the public.*

Procedures

Auditors reviewed each UAS deployment’s mission documentation to determine if the mission was for an approved mission type.

Results

All 14 (100%) UAS deployments met the criteria for this objective. The table below represents a breakdown of the mission types.

Table No. 1 – Mission Types

Mission Type	Frequency
Barricaded Suspect	8
Other High-Risk Tactical Operation	3
Explosive Ordnance Detection	2
Search and Rescue	1
Total	14

**UNMANNED AIRCRAFT SYSTEMS AUDIT
SPECIAL ENFORCEMENT BUREAU
Project No. 2021-7-A**

Objective No. 2 – UAS Operating Requirements

Objective No. 2(a) – Determine if SEB maintained a Cadre of Certified UAS Pilots

Criteria

Manual of Policy and Procedures Section 5-09/570.00, Unmanned Aircraft System, (July 2018), states:

SEB shall maintain a cadre of individuals certified by the FAA to operate an UAS.

Procedures

Auditors reviewed the SEB UAS pilot list and FAA certification documents to determine adherence to this criterion. There are currently 14 SEB UAS pilots.

Results

All 14 (100%) SEB UAS pilots met the criteria for this objective.

This space intentionally left blank

**UNMANNED AIRCRAFT SYSTEMS AUDIT
SPECIAL ENFORCEMENT BUREAU
Project No. 2021-7-A**

Objective No. 2(b) – Determine if Each UAS Deployment was Conducted by a Two-Person Team

Criteria

Manual of Policy and Procedures Section 5-09/570.00, Unmanned Aircraft System, (July 2018), states:

An UAS operation requires a two-person team of SEB personnel consisting of a qualified operator and an observer.

Procedures

Auditors reviewed each UAS deployment's mission documentation to determine if a two-person team conducted the operation.

Results

All 14 (100%) UAS deployments met the criteria for this objective.

This space intentionally left blank

**UNMANNED AIRCRAFT SYSTEMS AUDIT
SPECIAL ENFORCEMENT BUREAU
Project No. 2021-7-A**

Objective No. 2(c) – Determine if Each UAS Deployment was Preceded by a Notice to Airmen Filing

Criteria

Manual of Policy and Procedures Section 5-09/570.10, Unmanned Aircraft System Procedures, (July 2018), states:

UAS operators are responsible for making a Public Notice to Airmen (NOTAM) and all required FAA notifications prior to operating an UAS.

Federal Aviation Administration Certificate of Authorization No. 2020-WSA-5727-COA, §C. Notice to Airmen, (July 2020), states:

A Distant (D) NOTAM must be issued prior to conducting UAS operations...

...For first responders only. Due to the immediacy of some emergency management operations, the (D) NOTAM notification requirement may be issued as soon as practical before flight and if the issuance of a (D) NOTAM may endanger the safety of persons on the ground, it may be excluded. If the (D) NOTAM is not issued, the proponent must be prepared to provide justification to the FAA upon request.

Procedures

Auditors reviewed each UAS deployment's mission documentation to determine if SEB personnel filed a NOTAM with the FAA prior to operating the UAS.⁵

Results

Thirteen (93%) of the fourteen UAS deployments met the criteria. One deployment was not preceded by a NOTAM filing. The NOTAM was filed two days late.

⁵ According to the FAA, a NOTAM is a notice containing information essential to personnel concerned with flight operations but not known far enough in advance to be publicized by other means.

**UNMANNED AIRCRAFT SYSTEMS AUDIT
SPECIAL ENFORCEMENT BUREAU
Project No. 2021-7-A**

Objective No. 2(d) – Determine if a SEB Team Commander Notified and Coordinated with the Aero Bureau Watch Commander

Criteria

Manual of Policy and Procedures Section 5-09/570.10 – Unmanned Aircraft System Procedures, (July 2018), states:

An SEB team commander shall be responsible for notifying and coordinating with the Aero Bureau watch commander, rank of sergeant or above, prior to any UAS operations.

Procedures

Auditors reviewed each UAS deployment's mission documentation to determine if an SEB team commander notified and coordinated with the Aero Bureau watch commander, prior to the UAS operation.

Results

All 14 (100%) UAS deployments met the criteria for this objective.

This space intentionally left blank

**UNMANNED AIRCRAFT SYSTEMS AUDIT
SPECIAL ENFORCEMENT BUREAU
Project No. 2021-7-A**

Objective No. 2(e) – Determine Whether the UAS was Within the Visual Line of Sight

Criteria

Federal Aviation Administration Certificate of Authorization No. 2020-WSA-5727-COA, §B. Operations, (July 2020), states:

The UA must be operated within visual line of sight (VLOS) of the Pilot in Command (PIC) and the person manipulating the flight controls at all times unless otherwise specified in a Special Provision.

Procedures

Auditors reviewed each UAS deployment's mission documentation to determine if the UAS was operated within the VLOS.

Results

All 14 (100%) UAS deployments met the criteria for this objective.

This space intentionally left blank

**UNMANNED AIRCRAFT SYSTEMS AUDIT
SPECIAL ENFORCEMENT BUREAU
Project No. 2021-7-A**

Objective No. 2(f) – Determine if the UAS was Operated Under the Altitude Limit

Criteria

Federal Aviation Administration Certificate of Authorization No. 2020-WSA-5727-COA, Operations Authorized, (July 2020), states:

Operation of small Unmanned Aircraft System(s) weighing less than 55 pounds in Class B, C, D, E and G Airspace at or below 400 feet Above Ground Level (AGL) within the confines of Los Angeles County, CA...

Procedures

Auditors reviewed each UAS deployment's mission documentation to determine if the UAS was operated within the FAA altitude limits.

Results

All 14 (100%) UAS deployments met the criteria for this objective.

This space intentionally left blank

**UNMANNED AIRCRAFT SYSTEMS AUDIT
SPECIAL ENFORCEMENT BUREAU
Project No. 2021-7-A**

TABLE NO. 2 – SUMMARY OF RESULTS

The audit yielded the following results:

Objective No.	Audit Objectives	Met the Criteria
1	AUTHORIZED UAS DEPLOYMENT	
1(a)	<i>Determine if Each UAS Deployment was Appropriately Authorized.</i>	100%
1(b)	<i>Determine If the Deployment was for an Approved Mission Type.</i>	100%
2	UAS OPERATING REQUIREMENTS	
2(a)	<i>Determine if SEB maintained a Cadre of Certified UAS Pilots</i>	100%
2(b)	<i>Determine if Each UAS Deployment was Conducted by a Two-Person Team.</i>	100%
2(c)	<i>Determine if Each UAS Deployment was Preceded by a Notice to Airmen Filing.</i>	93%
2(d)	<i>Determine if a SEB Team Commander Notified and Coordinated with the Aero Bureau Watch Commander.</i>	100%
2(e)	<i>Determine Whether the UAS was Within the Visual Line of Sight.</i>	100%
2(f)	<i>Determine if the UAS was Operated Under the Altitude Limit.</i>	100%

This space intentionally left blank

**UNMANNED AIRCRAFT SYSTEMS AUDIT
SPECIAL ENFORCEMENT BUREAU
Project No. 2021-7-A**

OTHER RELATED MATTERS

Other related matters are pertinent issues related to the audit but were not objectives which were measurable against Department policies and procedures.

Visual Inspection

Auditors conducted a visual inspection of the UAS. The UAS had all required lighting for night-time UAS deployment, with positional lights as well as anti-collision lighting that had a three-mile capacity.⁶ The UAS accessories included a camera that had a non-record default setting and no memory card. The UAS had no additional brackets or mounting system and no capacity to carry anything other than the camera and lighting. Per both COAs, the Department maintains the UAS in an airworthy condition and has attested to the condition in the COA application with the FAA.

COC Recommendations

On September 28, 2017, the COC issued a report to the Department with ten recommendations for the newly established UAS program. The Department agreed to implement the recommendations. The recommendations and their status are listed below:

1. *The Sheriff should explicitly and unequivocally state that the UAS operated by the LASD is not armed and that the Department has no intention of arming a UAS.*
 - The Department's MPP Section 5-09/570.00, Unmanned Aircraft System, (July, 2018), states that UAS authorized to be operated by the Department are not armed with any munitions.
2. *Before seeking to expand the types of missions for which a UAS can be used, the Sheriff should commit to notifying the COC and allowing time for the COC to receive public comment prior to doing so.*
 - The Department has not sought to expand the authorized missions for the UAS program.
3. *The LASD Policy Manual should make it explicit that use of a UAS is limited to gaining situational awareness in emergency, life threatening situations.*

⁶ Federal Aviation Administration Certificate of Authorization No. 2020-WSA-5727-COA, §E. sUAS Night Operations, (July 2020),

**UNMANNED AIRCRAFT SYSTEMS AUDIT
SPECIAL ENFORCEMENT BUREAU
Project No. 2021-7-A**

- MPP Section 5-09/570.00, Unmanned Aircraft System, (July 2018), and SEB Unit Order No. 2017-01 both adopted the suggested language.
4. *SEB should maintain a log of NOTAMs, the type of operational use authorized, who authorized it and the results of each use.*
- The indicated documents are maintained by the SEB.
5. *The Department should notify the COC, within 48 hours, through its Executive Director, of any authorized operational uses of UASs and any unauthorized uses.*
- The Department satisfies this requirement through communication with the Executive Director and the public posting of the requested information on the LASD website.
6. *On a quarterly basis, the Department should provide the COC with a report regarding all operational uses of the UAS, type of mission for which such use was approved, the results of such uses, and whether or not they were within policy. Further, in the interest of transparency, we recommend that this data be published on the LASD website.*
- The Department provides the COC a report regarding all operational uses of the UAS on a quarterly basis. That information is also published on the LASD website.
7. *The UAS Program should be audited on at least an annual basis by the LASD. Its audits should be provided to the COC and the OIG.*
- This report fulfills the recommendation of an annual audit for the UAS Program.
8. *Modify the Unit Order and Policy Manual to limit preservation of video footage, except for training, from ten to two years, unless there is a pending case requiring that it be preserved beyond two years.*
- MPP Section 5-09/570.10, Unmanned Aircraft System Procedures, (July 2018), and SEB Unit Order No. 2017-01 both adopted the language suggested by the COC and are the current policy of the Department.

**UNMANNED AIRCRAFT SYSTEMS AUDIT
SPECIAL ENFORCEMENT BUREAU
Project No. 2021-7-A**

9. *Include a separate section in the Policy Manual that specifically addresses the LASD's commitment to maintaining individuals' privacy and other constitutional rights and operating according to the Constitution and the law regarding searches.*

- The Department's MPP Section 5-09/570.00, Unmanned Aircraft System, (July 2018), states the Department's commitment to ensuring all deployments of the UAS are conducted in accordance with federal and state law. SEB Unit Order No. 2017-01 states that the Department's mission is to protect lives and property in a constitutionally and legally sound manner and in compliance with FAA regulations.

10. *Assure prompt investigation and appropriate accountability, including discipline when warranted, for out-of-policy use of the UAS.*

- It is the Department's ongoing policy to promptly investigate and respond to violations of Department policy.

CONCLUSION

The AAB considers the results of this audit to be a helpful management tool for all Department personnel. Auditors performed analyses and made assessments to identify areas in need of improvement. The evidence presented provides reasonable assurance that Department personnel are adhering to the MPP and FAA regulations.

RECOMMENDATIONS

The AAB does not have specific recommendations as a result of this audit. However, Department management should disseminate the results of this audit to its personnel. Additionally, as best practice, Department management is encouraged to conduct recurring and ongoing briefings of policies and procedures related to the use of the UAS.

This space intentionally left blank

**UNMANNED AIRCRAFT SYSTEMS AUDIT
SPECIAL ENFORCEMENT BUREAU
Project No. 2021-7-A**

Views of Responsible Officials

On September 22, 2021, the Special Operations Division submitted a formal response to AAB concurring with the audit results. A copy of the audit was provided to the Office of Inspector General.

This space intentionally left blank

**UNMANNED AIRCRAFT SYSTEMS AUDIT
SPECIAL ENFORCEMENT BUREAU
Project No. 2021-7-A**

This audit was submitted on this 30th day of September, 2021 by the Audit and Accountability Bureau.

Original signature on file at AAB

KENNETH DIAZ, CPA
Project Manager, Law Enforcement Auditor
Audit and Accountability Bureau
Los Angeles County Sheriff's Department

Original signature on file at AAB

KENJI MASHIKO
Assistant Project Manager, Sergeant
Audit and Accountability Bureau
Los Angeles County Sheriff's Department

Original signature on file at AAB

M. ROWENA NELSON
Head Compliance Officer
Audit and Accountability Bureau
Los Angeles County Sheriff's Department

Original signature on file at AAB

RODNEY K. MOORE
Captain
Audit and Accountability Bureau
Los Angeles County Sheriff's Department