



LAPD Helicopter Audit

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LA CITY CONTROLLER



December 11, 2023

Honorable Karen Bass, Mayor
Honorable Hydee Feldstein Soto, City Attorney
Honorable Members of the Los Angeles City Council

Re: Audit of the Los Angeles Police Department's Air Support Division

Our City's investments in public safety account for a significant portion of our annual discretionary budget. To better empower both the general public and policymakers to understand what we are receiving in return for our investment, my Office conducted its **first-ever audit** of the Los Angeles Police Department's (LAPD) airborne operation, the Air Support Division (ASD). The audit was launched in response to calls from community members and organizations who requested more information regarding the costs and performance of LAPD helicopters. Our audit focused on the LAPD's use of helicopters from fiscal years (FYs) 2018 through 2022 and explored whether the LAPD has justified the need for the program's current size and scope, which consists of 17 helicopters and more than 90 employees.

Despite spending an average of \$46.6 million every year on the ASD, there is limited external oversight or monitoring of the ASD, its policies, practices, or whether the program, which was established in the 1970s, is in line with the City's present-day needs. Over its 67 year history, the ASD program has transitioned from 1 helicopter to a fleet of 17. With no comprehensive, external audit of the program until now, inefficiencies, data reliability issues, and lack of transparency and performance monitoring have gone unchecked.

Our audit's findings strongly suggest that the LAPD's current use of helicopters causes significant harm to the community without meaningful or reliable assessment of the benefits it may or may not deliver.

Our audit shows significant areas of concern with ASD, including but not limited to:

- **The ASD program costs nearly \$50 million annually while most of the flight time is not devoted to high priority events.** Our audit found that the estimated annual cost to operate the helicopter program is \$46.6 million (i.e., \$127,805 per day or \$2,916 per flight hour).¹ There are 14 City departments whose annual budgets do not reach this amount;
- 61% of flight time was dedicated to activities not associated with the highest priority incidents, such as transportation flights, general patrol time, and ceremonial flights;
- Some transportation and ceremonial flights were an inefficient, inappropriate use of City funds, (including passenger shuttle flights for a "Chili Fly-In" and a fly-by at a golf tournament);

¹ Based LAPD and other City departments' costs associated with operating and maintaining LAPD helicopters between FY 2018 through FY 2022.

- Helicopters spend a disproportionate amount of time in certain communities when compared to other areas and levels of alleged crime;
- There is no persuasive empirical evidence that shows a clear link between helicopter patrols and crime reduction, and the LAPD has not done the work to collect necessary data to test such claims;
- ASD helicopters burn approximately 761,600 gallons of fuel and release approximately 7,427 metric tons of carbon dioxide equivalent per year (equivalent to over 19 million miles driven by gas-powered passenger cars);
- ASD patrols flout best practices for mitigating nuisance noise by flying below the recommended distance above ground level;
- LAPD does not have a formal contract with its flight log application vendor, raising ethical, legal, and other concerns. Without a contract, flight related data may be accessed by unauthorized persons and can be misused or withheld from the LAPD.
- There are significant issues with flight data collection and monitoring.

It is unsurprising that the helicopter program's cost is high given that, unlike most jurisdictions, the City operates its helicopter fleet on an almost continuous basis. Typically, there are two helicopters flying for 20 hours every day of the year. During FY 2018-22, these helicopters logged an average of 16,000 hours of flight time each year at a cost of \$2,916 per flight hour.

Our audit identified several issues of concern about how ASD helicopter flight hours were spent. Most alarmingly, we found that approximately 61% of ASD's flight time was dedicated to activities not associated with high priority crime. Instead, that 61% of flight time was devoted to lower priority calls, transportation and ceremonial flights, and scheduled patrols of specific areas.

At least some of the transportation and ceremonial flights were an inefficient or inappropriate use of City money as they provided little to no public safety benefit. For example, included in the transportation flights that lasted hours were a 6-hour shuttle flight for an ASD-sponsored "Chili Fly-In" and a roundtrip helicopter transport of two high ranking LAPD officials from LAPD headquarters in Downtown LA to a meeting at the Harbor Community police station.

ASD also conducted 783 ceremonial "fly-by" activities, which are flights over a ceremony or event. These fly-by activities included, in part, LAPD events like academy graduations, retirement ceremonies, and police station events as well as community events and golf tournaments. We found that for at least 161 of the fly-by activities there was not enough information to determine what category of activity took place.

Even when ASD does devote some of its flight time (39%) to high priority crime types, based on the data currently available, neither our office nor the LAPD can demonstrate that police helicopters actually deter crime in the City.

There is evidence, however, that helicopters can have a negative quality of life impact on the lives of residents who live in communities with frequent helicopter activity. Long-term noise exposure to

aircrafts can lead to: decreased sleep quality, increased stress, cognitive impairment, reduced metabolism, and cardiovascular disease (i.e. heart attack, stroke, heart disease, etc.).

Taking a closer look at emissions and pollution, our audit found that ASD helicopters:

- Burn approximately 47.6 gallons of fuel per hour
- Burn approximately 761,600 gallons of fuel per year (based on ASD flying 16,000 hours per year)
- Release approximately 7,427 metric tons of carbon dioxide equivalent per year

Our audit makes recommendations for (1) reducing inefficiencies, (2) improving data collection and management, and (3) boosting transparency and performance monitoring, including but not limited to the following:

- Establish a formal set of performance metrics and performance goals that are routinely gathered, assessed, and made public so that residents, policymakers, the Board of Police Commissioners, LAPD management, and ASD can monitor on a regular basis;
- Complete a formal assessment of air support needs for patrol and incident response operations to assess the program's current operations and whether rightsizing opportunities exist;
- Revise existing data fields or establish new data fields in the Daily Flight Log to allow ASD to track responses to Part I crimes, and responses where the ASD aircrew is directly responsible for an apprehension or recovery of a firearm;
- Update the ASD Manual to establish policies for the planning and authorization of directed patrols, fly-bys, and administrative flights.

With this audit, the City now has the information to better determine whether the City needs an airborne program that is this big, this costly, and this damaging to its environment.

Respectfully submitted,



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EXECUTIVE SUMMARY

The Los Angeles Police Department (LAPD) Air Support Division (ASD) operates the largest municipal airborne law enforcement unit in the country, with 17 helicopters and more than 90 employees. The program was initially shaped during the 1970s, when Los Angeles was experiencing an especially high rate of violence and homicides. The stated mission of ASD is to “enhance officer and public safety, reduce the incidence of crime and thus reduce the fear of crime” by supporting the operations of ground-based officers and specialized units of the LAPD through aerial patrols and special flights.

While there are situations, such as vehicle pursuits, kidnappings, and violent crime response, where helicopters can provide critical support and increase the likelihood of apprehending suspects, there is a lack of empirical evidence that demonstrates a clear link between helicopter patrols and crime reduction. However, there has been limited public discussion about whether the size of the division and deployment strategy are aligned with the current needs of the City.

This report examines the LAPD’s use of helicopters from fiscal year (FY) 2018 through FY 2022, and explores whether the department has justified the need for the current size and scope of the air support program. It offers recommendations for reducing inefficiencies, improving data collection and management, and boosting transparency and performance monitoring. This information is intended to help the public, LAPD, and policymakers make informed decisions about the City’s investment in police air support operations.

What We Found

Air support programs are common at law enforcement entities across the country, and helicopters can provide important support in situations where an aerial perspective is needed. Los Angeles is unique in that its helicopter fleet operates on an almost continuous basis. On a typical day, two ASD helicopters each provide 20 hours of coverage, which results in a significant number of flight hours. During our five-year scope period, ASD helicopters logged an average of 16,000 hours of flight time each year.

We identified several issues of concern about how some of those flight hours were spent and information gaps that prevented our ability to reach larger conclusions about the effectiveness of the program.

- The estimated annual cost to operate the LAPD’s helicopter program is \$46.6 million—approximately \$128,000 per day and \$2,900 per hour.¹ These estimated costs exceed the annual budgets of several City departments. In addition to financial costs, emissions and persistent noise from helicopters can negatively impact quality of life, especially for residents who live in communities with frequent helicopter activity. Two

¹ Based LAPD and other City department costs associated with operating and maintaining LAPD helicopters between FY 2018 through FY 2022.

ASD helicopters each provide 20 hours of coverage daily. During our five-year scope period, ASD helicopters logged an average of 16,000 hours of flight time each year.

- The ASD helicopters used for patrol activities (Airbus AS350 B3e and Airbus AS350 B2) burn approximately 47.6 gallons of fuel per hour. That means that ASD helicopters burn approximately 761,600 gallons of fuel per year (based on ASD flying 16,000 hours). Based on the U.S. Energy Information Administration's carbon dioxide emissions rate for jet fuel, this results in approximately 7,427 metric tons of carbon dioxide equivalent annually, which is the equivalent of just over 19 million miles driven by average gasoline-powered passenger vehicles. The emissions from ASD helicopters highlight the need to reduce negative impacts on the community to the greatest extent possible.
- Our analysis showed that approximately 61% of ASD's flight time was dedicated to activities not associated with the highest priority crime types. Examples included responses to lower priority incidents, transportation flights, and flight time where flight crews were not actively engaged in a response activity or directed patrol (i.e., dedicated patrols of specific geographic areas). An estimated 39% of total flight time was focused on higher priority crime types. High priority incidents included reports of felony crimes related to persons and property, and support for urgent public safety incidents, such as searches for missing persons.
- Some LAPD Areas (i.e., the geographic zone associated with an LAPD Division) experienced a larger share of LAPD helicopter flights relative to the rate of the Part I crimes in the area, while some patrol areas experienced a smaller share.² The 77th Street Area in South Los Angeles had the largest share of flights relative to Part I crimes, while the Pacific Area in West Los Angeles had the fewest. This is important because excessive exposure to helicopters can negatively impact quality of life, and can create equity concerns if certain communities are subject to over-policing.
- The ASD Manual allows for some flights for transportation and ceremonial purposes, but does not provide sufficient guidelines for the use and authorization of helicopters for those purposes. Based on our review, at least some of these flights represented an inefficient or inappropriate use of City money, as they appeared to provide little to no public safety benefit.
- ASD does not currently have an established set of performance metrics and goals that it reports on a regular basis to the Los Angeles Board of Police Commissioners, City Council, or the public. It also does not report any specific performance metrics as part of the department's annual budget development and approval process. The lack of information places City decisionmakers and taxpayers at a disadvantage.

² ASD prioritizes responses to Part I crimes, which are the most serious crimes based on their nature and the frequency with which they occur. Part I crime definitions are established by the Federal Bureau of Investigation's Uniform Crime Reporting Program.

- The LAPD's air operations program is much larger than that of peer jurisdictions, based on our review of benchmark cities. ASD flew more than three times the number of flight hours daily compared to the Houston Police Department, which had the highest violent crime rate (1,128 violent crimes) as well as the largest land area (640.4 square miles) of other cities surveyed. Despite these factors, Houston flies one helicopter for 12 hours each day, compared to the LAPD flying two helicopters at a time, each for 20 hours per day.
- We identified data reliability problems in ASD's Daily Flight Log, such as inconsistent use of activity categories, data entry errors related to flight time, and fields where information is limited. We also found that the LAPD does not have a formal contract or agreement in place with the vendor that developed and maintains the application, which raises potential procurement and information security concerns.

What We Recommend

The City and LAPD should examine whether the current scale of ASD operations is the best use of public safety resources, and improve the collection and analysis of data in order to ensure police helicopters are responding to situations where aerial response and support is necessary. To the greatest extent possible, the LAPD should also take steps to reduce harmful quality of life impacts created by helicopters, and improve transparency so that decision makers and the public have a greater understanding of ASD operations and outcomes. Specifically, we recommend the following.

- Routinely complete formal and independent assessments of air support needs for patrol and incident response operations to determine whether the program's current scale and resource allocation are justified, and whether rightsizing opportunities exist.
- Establish a formal set of transparent performance metrics and goals so that the public, City policymakers, the Board of Police Commissioners, LAPD leadership, and ASD can monitor the program and its outcomes on a regular basis.
- Revise existing data fields or establish new data fields in the Daily Flight Log to allow ASD to track responses to Part I crimes, and responses where the ASD aircrew is directly responsible for an apprehension or recovery of a firearm.
- Update the ASD Manual to expand guidance on Daily Flight Log data entry requirements and standardization. Manual updates should include clear definitions for data fields and minimum requirements for free-form comment fields.
- Update the ASD Manual to establish policies for the planning and authorization of directed patrols, fly-bys, and administrative flights.
- Transmit for review to the Board of Police Commissioners, at least annually, a report detailing the activities and impact of ASD operations. The report should include a summary of key performance data and performance goals.

- Regularly report information about ASD activities to educate members of the public about police helicopter operations, and establish a clear reporting avenue enabling members of the public to submit general feedback, complaints, and recommendations related to LAPD helicopters.

It is critical that the City invest in public safety programs that are an efficient use of public safety dollars, and proven effective as crime reduction initiatives. By implementing the solutions proposed in this report, the City can make informed decisions about the LAPD helicopter program moving forward, and ensure the department's air support operations meet the needs of the community and law enforcement officers.

BACKGROUND

The Los Angeles Police Department (LAPD) operates a fleet of 17 helicopters and one fixed-wing aircraft in support of its missions to preserve life and property, and enhance public safety for Los Angeles residents and visitors. LAPD first began using helicopters in 1956, with a single helicopter used primarily for traffic patrol. The department gradually added helicopters until 1974, when the unit underwent a major expansion to 15 helicopters, and was officially designated the Air Support Division (ASD).

The significant expansion of the City's air support resources took place during an especially violent period in Los Angeles. A study by researchers at the University of California Los Angeles/Centers for Disease Control found that between 1970 and 1979, the homicide rate in Los Angeles increased by 84%—from 12.5 per 100,000 residents to 23 per 100,000 residents.³ These trends continued through the 1980s and the early 1990s. Since then, homicides and other types of violent crimes have steadily dropped in Los Angeles and other large cities throughout the country. Despite ongoing public safety challenges, data shows that Los Angeles is a safer place today than it was several decades ago.

ASD supports the LAPD's ground-based patrol units and specialized units through aerial patrols and other special tactical flights. Helicopters are intended to provide officers with a unique, aerial vantage point when on patrol and responding to incidents, and they allow the department to respond quickly to reports of serious crime and public safety incidents. The ultimate, stated goal of the program is to enhance public safety and officer safety. The LAPD considers helicopters to be a "force multiplier" that increases police efficiency.

Helicopters may provide critical law enforcement support in many situations, such as vehicle pursuits, kidnappings, and violent crime response. **However, there has been little independent examination into whether the size of the division and the scope of its operations are aligned with the current needs of the department and the City.** In addition, some residents have argued that the benefits of the City's helicopter program are outweighed by concerns about issues such as privacy, quality-of-life, and over-policing of certain communities.

The primary purpose of this review was to determine whether the current size of LAPD's helicopter program and its scope of operations are justified, and an efficient use of public safety resources. Specifically, we sought to answer the following questions.

- How does the LAPD use its helicopter fleet?
- Does LAPD's deployment and use of helicopters align with available policing best practices and the practices of peer law enforcement organizations?
- What is the overall cost of the LAPD helicopter program?

³ University of California at Los Angeles, Centers for Disease Control: The Epidemiology of Homicide in the City of Los Angeles, 1970–79, Department of Health and Human Services, Public Health Service, Centers for Disease Control, August 1985.

- How does the LAPD measure helicopter program performance?
- Can the department demonstrate that helicopters are effective in (1) reducing crime and (2) apprehending individuals suspected of crimes?
- What steps does the department take to reduce negative quality of life and environmental impacts?
- How does the department manage complaints and community input related to the helicopter program?

This report examines ASD costs and operations from fiscal year (FY) 2018 through FY 2022. The following subsections provide a high-level overview of ASD during our five-year scope period, subsequent sections of the report include the results of our analysis.

ASD Mission

The primary mission of ASD, as defined in its policy manual, is to **“enhance officer and public safety, reduce the incidence of crime and thus reduce the fear of crime.”** The LAPD describes its helicopters as an airborne patrol vehicle. The enhanced situational awareness aerial units provide to ground-based vehicles responding to an incident can also promote officer safety. When on patrol, ASD’s practice is to prioritize responses to Part I crimes, which are the most serious crimes based on their nature and the frequency with which they occur. Part I crime definitions are established by the Federal Bureau of Investigation’s Uniform Crime Reporting Program, which monitors crime and generates statistics for crime analysis purposes. Part I crimes include:

- murder and nonnegligent manslaughter;
- forcible rape;
- robbery;
- aggravated assault;
- burglary;
- larceny theft;
- motor vehicle theft; and
- arson.

The City’s large geographic footprint and frequent traffic congestion on streets means that LAPD helicopters may provide valuable assistance when rapid response is necessary. According to ASD, helicopter response time can range between 30 seconds to 2.5 minutes. Flight time from end-to-end within each area of responsibility (i.e., West/Central, South, and Valley Bureaus) is approximately six minutes, while flight time between the two farthest points of the City (i.e., Northridge to the Port of Los Angeles) is approximately 20 minutes.

In addition to normal patrol and incident response operations, ASD conducts special flights, which support a variety of investigative, homeland security, and public affairs activities. Those activities include, but are not limited to, surveillance, transportation, reconnaissance, photography and video evidence collection, and damage assessments.

ASD Operations

ASD operations are primarily housed at the LAPD's Hooper Heliport, which is located at the City's Piper Technical Center.⁴ Two helicopters are airborne and on patrol from 8:30 am to 4:30 am. During the four-hour period between 4:30 am and 8:30 am, the air unit remains operational and ready to deploy for major incidents or events, if needed. ASD helicopters typically fly in shifts lasting two-and-a-half hours. During ASD's patrol hours, one helicopter is generally responsible for the San Fernando Valley, while one helicopter is responsible for the area south of the San Fernando Valley (i.e., Central, East, West, South and Harbor areas). However, helicopters can patrol and respond to incidents outside of their area of responsibility as needed.

Figure 1: LAPD Helicopters at the Hooper Heliport



Each flight is operated by an aircrew of two sworn LAPD officers, a Pilot and a Tactical Flight Officer (TFO). The Pilot's primary responsibility is to fly the aircraft, while the TFO manages tactical tasks, such as monitoring conditions or incidents on the ground, monitoring and answering radio calls, and operating cameras.

The daily, routine flights described above are referred to as "air support to regular operations" (ASTRO). Calls for service can come in directly from 911 operators or from LAPD officers. ASD aircrews and command staff also have the discretion to proactively respond to a high-risk incident based on radio communications they monitor. For example, an aircrew can monitor the radio and hear that a unit on the ground needs backup and choose to respond and provide support.

In addition to responding to calls, ASD will engage in proactive, dedicated patrols of areas the department determines to be crime hot spots (known as directed patrols). As part of the planning process prior to an ASTRO flight, ASD aircrews and supervisors will, to the extent possible, consider criminal activity trends reflected in LAPD's COMPSTAT Division data and the observations of the preceding ASTRO aircrew to determine if and where directed patrols will take place.⁵ Directed patrols may also be requested by other specialized LAPD units and the LAPD's 21 geographic divisions. Decisions related to directed patrol activities, including determinations about whether patrols are warranted and the prioritization of requests from

⁴ The Piper Technical Center is an operations support and logistics hub located in downtown Los Angeles that is used by multiple City departments.

⁵ COMPSTAT, short for "computer statistics," is a multi-faceted system for managing police operations used by law enforcement agencies across the United States.

other units, are ultimately based on the judgment and discretion of helicopter aircrews and ASD supervisors, and their assessment of crime information and resource availability.

In addition to ASTRO flights, which are the primary responsibility of ASD, the division also conducts special flights, which are specialized non-patrol activities that support ASD training and maintenance programs, LAPD investigations, unique tactical missions, and other flight types. Examples include, but are not limited to, surveillance flights, transportation missions, photo evidence flights, and training flights. In addition to its helicopters, ASD has a fixed-wing airplane for specific and rare cases where transportation is required and a helicopter is not feasible. Examples of these flights include transporting a witness to court or transporting prisoners.⁶

ASD Policies and Procedures – The management and operation of the LAPD helicopter fleet is complex and technical. Like any LAPD unit, ASD must adhere to the LAPD Manual, which describes the objectives, principles, policies, procedures, rules, and regulations that govern LAPD operations and professional conduct. The division also maintains the ASD Manual, a division-specific policy manual codifying policies, procedures, and guidelines for ASD operations. The ASD Manual is designed to complement existing LAPD policies, manufacturer flight manuals, federal aviation regulations, and other LAPD division manuals.⁷ The manual establishes policies for a broad range of operational and administrative functions, including, but not limited to:

- Organizational functions and positions;
- Operational control and flight operations;
- Fuel and facilities management;
- Heliport operations;
- Communications;
- Flight crew training and standards; and
- Aircraft maintenance.

ASD must also adhere to the manufacturers' manuals for the operation and maintenance of aircraft, as each aircraft has different features and requirements. This includes any safety and maintenance bulletins published by manufacturers, as this is necessary to ensure the safety of ASD personnel and the public.

Staffing and Training

As of March 2023, ASD was budgeted for a total of 91 positions, which included 81 sworn law enforcement employees (the majority of which were Pilots and TFOs) and 10 civilian employees. ASD staffing levels for aircrew members are based on department schedule and

⁶ Between FY 2018 and FY 2022, ASD logged 157 missions on the fixed-wing aircraft. The LAPD's management and use of its fixed-wing aircraft are not the focus of this review.

⁷ ASD is subject to Federal Aviation Administration regulations for public and civil aircraft operations.

rest requirements, which are intended to minimize crew fatigue and promote the safe operation of LAPD helicopters.

Both Pilots and TFOs are sworn employees, and extensive training and experience standards are required for employees in those positions. To become an ASD Pilot, an applicant must have also have worked for at least five years as an LAPD officer, either have a private pilot license or accrue 1,500 hours as a TFO, and pass the Federal Aviation Administration (FAA) exam for rotorcraft private pilot or commercial pilot. To become a TFO, an applicant must have been an LAPD officer for at least five years. Pilots and TFOs undergo ASD's own flight school to ensure the full standardization of safety and flight procedures. Flight training is led by an ASD Pilot with a valid FAA Flight Instructor Certificate for the appropriate aircraft category and class.

Civilian employees of ASD support the division's various business and fleet management functions, such as fuel management, security, and record keeping. Civilian employee classifications within the division include Management Analyst, Clerk Typist, Security Officer, Store Keeper, and Garage Attendant.

Helicopter Maintenance

The City's General Services Department (GSD) and Information Technology Agency (ITA) are responsible for ASD helicopter maintenance. GSD and ITA maintenance facilities are located in a central hangar at Van Nuys Airport. The City's entire fleet of 28 helicopters, which includes those operated by the Los Angeles Fire Department and the Los Angeles Department of Water and Power, are maintained at this facility.

Figure 2: The City's Helicopter Maintenance Facility at Van Nuys Airport



All but one of ASD's helicopters are manufactured by Airbus. ASD operates nine AS350 B3e helicopters and seven AS350 B2 helicopters, which are older aircraft. The fleet also includes a Bell 412EP, which is most often used for special missions and the movement of personnel for tactical reasons, such as SWAT missions. The average age of an LAPD helicopter is approximately eight years, and the oldest aircraft is 25 years old.

According to GSD staff, best practice for the replacement of helicopters is every 10 years, or at 15,000 hours of flight time.

The majority of maintenance work performed for LAPD helicopters is carried out by GSD. GSD's maintenance program is designated as an FAA-certified Repair Station. The term Repair

Station refers to a maintenance facility that has a certificate issued by the FAA, and is engaged in the maintenance, inspection, and alteration of aircraft and aircraft products. As an FAA certified repair station, GSD's maintenance program is subject to regular audits by the FAA.

GSD has 40 helicopter maintenance staff (nine supervisors and 31 full-time mechanics). A Chief of Maintenance coordinates and oversees maintenance on the helicopters, while a Chief Inspector conducts quality assurance reviews to ensure maintenance work meets applicable standards and the aircraft is safe to operate. **On average, GSD maintains a fleet availability rate of 75% at all times.** The department is also responsible for the procurement and distribution of fuel for City helicopters.

ITA operates its own FAA-certified Repair Station which is responsible for maintaining aircrafts' technical systems (communication, navigation, autopilot, media and microwave downlink, and most of the electronic and electrical components). ITA's Repair Station has seven employees, and operates similarly to GSD's maintenance and quality assurance model. ITA coordinates its maintenance activities with GSD. However, unlike GSD repair work which is usually performed in alignment with a regular schedule, ITA's work is mostly unscheduled maintenance on equipment such as radios, cameras, navigation systems, and the corresponding flight instrumentation.

The Estimated Cost to Operate ASD

The annual costs associated with operating the LAPD's air support fleet are significant. In addition to ASD labor and overhead costs, LAPD helicopters and planes require maintenance support from multiple City departments. The City must also enter into long-term financing arrangements for helicopter purchases, and LAPD helicopters require jet fuel.

To develop a cost estimate for LAPD air support operations, we analyzed:

- the direct labor costs for LAPD ASD staff, GSD maintenance staff, and ITA maintenance staff;
- the associated indirect (overhead) costs attributed to each of those departments;
- parts and equipment costs;
- fuel costs;
- contract services costs; and
- debt service costs for helicopters and equipment purchased through the Municipal Investment Corporation of Los Angeles (MICLA), the City's financing mechanism.⁸

⁸ Debt servicing cost estimates are based on payments made for ASD assets between FY 2018 and FY 2022. The final maturity dates for bonds falling under this category range from March 2019 to November 2031.

This estimate relies on City payroll data, information provided by departments, indirect cost rates published in the City's Cost Allocation Plan, and the average monthly jet fuel price paid by the City.⁹

The estimated cost to operate the LAPD's air support program was \$233 million between FY 2018 and FY 2022. The estimated annual average cost between FY 2018 and FY 2022 was approximately \$46.6 million, or approximately \$127,805 per day, and \$2,916 per hour.¹⁰ Table 1 shows the estimated annual cost to operate the LAPD air support program during our five-year scope period. It includes costs associated with LAPD, GSD, ITA, MICLA financing, and fuel. It also includes the estimated cost per day, and cost per hour (see **Appendix A** for additional cost estimate information).

Table 1: Estimated Cost to Operate LAPD Helicopters

	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022
LAPD	\$32,755,123	\$32,721,191	\$35,242,158	\$33,555,515	\$31,044,650
GSD	\$8,006,926	\$8,334,908	\$8,763,212	\$8,645,535	\$9,686,163
ITA	\$346,725	\$256,265	\$640,849	\$850,211	\$732,507
MICLA	\$1,628,438	\$1,772,284	\$1,937,718	\$2,496,975	\$4,490,060
Fuel	\$1,815,147	\$2,028,395	\$1,592,379	\$1,391,189	\$2,509,472
Grand Total	\$44,552,358	\$45,113,044	\$48,176,316	\$46,939,425	\$48,462,851



	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022
Cost/Hour	\$2,785	\$2,820	\$3,011	\$2,934	\$3,029
Cost/Day	\$122,061	\$123,597	\$131,990	\$128,601	\$132,775

MICLA-Financed Helicopters and Equipment – MICLA is a 501(c)4 non-profit financing corporation that was established by the City in 1984 to assist in the financing of capital projects and equipment. MICLA is governed by a five-member board, while the City Administrative Officer is the liaison between MICLA and the City. Assets acquired through MICLA are financed under municipal bonds, and subject to bond interest rates. **The City often finances LAPD helicopter assets through MICLA due to the high costs.** Helicopters purchased

⁹ The Cost Allocation Plan is prepared by the City Controller's Office with assistance from City departments. The plan establishes indirect cost rates used by the City for budget development, grant application, and grant billing activities. The indirect costs include fringe benefits, central services, department administration, and compensated time off.

¹⁰ The per hour flight cost estimates in this report are based on ASD flying approximately 16,000 helicopter hours annually, which will be discussed in the following section of this report.

for the LAPD can cost between approximately **\$4 million and \$6 million**, depending on the model and options. The City sometimes finances special parts and equipment as well.

The types of LAPD air support equipment financed under MICLA include, but are not limited to:

- helicopters;
- Global Positioning System (“GPS”) technology;
- communications equipment;
- monitors and displays;
- video downlink equipment; and
- infrared cameras.

Between FY 2018 and FY 2022, the City made debt service payments for helicopter assets under 12 different bond series. **The total original expenditure amount for assets requiring debt service payments during that period (i.e., the purchase price for the assets) was \$43.6 million.**

The City’s Police Helicopter Investment – Although the City’s LAPD air support program investment is relatively small when compared to the nearly \$3.1 billion FY 2022 department budget, it still represents a significant investment of public funds. **Based on the level of funding required to operate ASD, the helicopter program would have a budget larger than that of 14 City departments, boards, and offices.** ASD’s budget would be similar in size to the budget of the Animal Services Department and the Community Investment for Families Department.

Figure 3: ASD Would Have A Budget Larger Than Many City Departments



The City's sizeable investment in LAPD's helicopter program highlights the need to ensure that the LAPD closely monitors the use of helicopter assets, and the effectiveness of helicopter operations in responding to public safety incidents.

I. THE LAPD HAS NOT JUSTIFIED THE NEED FOR THE CURRENT SIZE AND OPERATIONAL SCOPE OF ITS HELICOPTER PROGRAM

Police helicopters are widely used by law enforcement agencies in the United States. However, it is becoming increasingly important for police departments, including the LAPD, to incorporate evidence-based policing practices and strategies into their operations. Evidence-based policing aims to ensure that a department's tactics prevent crime with as little harm to the public as possible, while ensuring that a department's allocation of resources align with public safety needs that have been identified through rigorous analysis. It requires shifting from practices based on historical approaches and organizational culture to one based on scientific findings.

The LAPD has not clearly demonstrated the need for the current size and operational scope of the air support program. **While helicopters can assist with the apprehension of individuals and provide increased situational awareness during emergency situations, the extensive number of hours flown by the LAPD and the 20-hour per day patrol coverage results in a significant portion of ASD's flight time being dedicated to medium and lower priority call types, training flights, and flight time where crews are not actively engaged in a response activity or targeted patrol.** We also found that although reported crime rates vary across the City, some geographic areas experience a disproportionate presence of ASD helicopters, which creates over-policing risks.

ASD Captures Large Amounts of Data in Its Daily Flight Log, But the Log Has Data Reliability Issues

As part of this review, we analyzed ASD Daily Flight Log data to better understand the types of activities that ASD engages in, areas where they operate, and the results of those engagements. ASD's Daily Flight Log is the division's official record for its flight activities. During a flight, the TFO takes handwritten shorthand notes documenting each activity (i.e., when an air unit is responding to an incident, engaged in a law enforcement support role, or engaged in general flight for training or administrative purposes). At the end of each shift, TFOs enter the information into an electronic flight log system.

TFOs record multiple data points for each activity, including but not limited to:

- date, time of day, and duration;
- the source of the activity request;
- type of activity (i.e., the type of crime, investigation, or support activity);
- area (i.e., the LAPD precinct or bureau in which the activity occurred);
- whether the air unit was first on the scene;

- whether the incident involved a firearm; and
- whether the incident resulted in an arrest.

For each activity, the TFO also provides a narrative summary of the engagement which includes a description of the event and what transpired on the ground. Many activities have only a brief description, as a detailed summary is unnecessary. For example, an activity may be a directed patrol (i.e., a dedicated patrol of a specific geographic area) rather than response to a specific incident. In other cases, the air unit may respond to an incident to search for a suspect or crime in progress, but is ultimately unable to locate a suspect or evidence of criminal activity. However, for activities where the air unit is actively engaged in the identification and monitoring of a crime in progress, TFOs are expected to detail the activities and incident's resolution.

The LAPD collects large quantities of data about its flight activities. However, it is important to note there are certain data limitations that impact the quality and accuracy of information contained in the Daily Flight Log. **While ASD collects a large amount of information about its flights, there are some data reliability issues.**

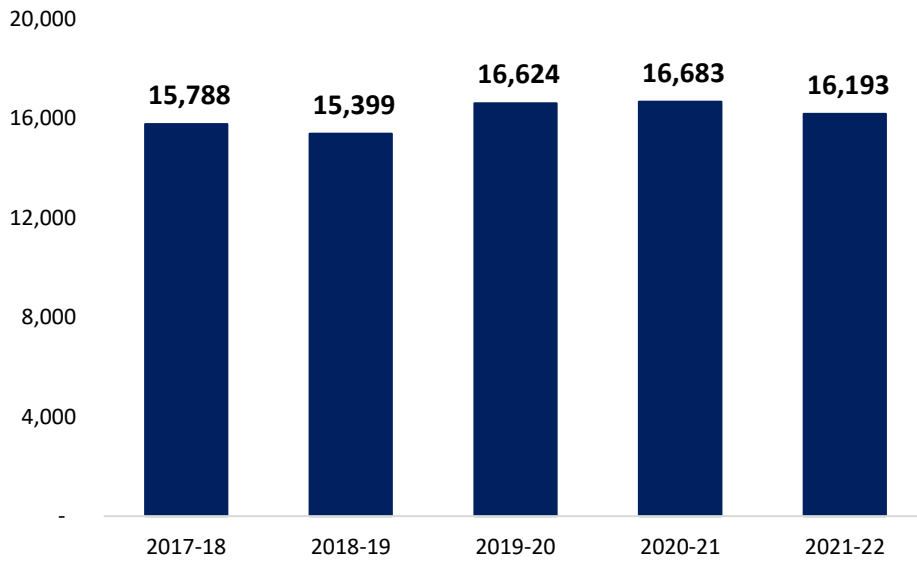
- There are 27 established activity categories, but TFOs have discretion with regard to how they classify flight activities. This can result in similar flight activities being classified under different categories.
- The Daily Flight Log's geographic categories are primarily based on the LAPD's 21 area stations. However, geographic categories also include the department's four regional command areas (i.e., bureaus) and certain LAPD units and initiatives, neither of which have an associated area station indicator. This means it is not possible to determine the specific area where some flight activities took place.
- ASD does not have an activity category for what are known as directed patrols, which are dedicated patrols targeting specific geographic areas based on crime trends, or requests from area stations or bureaus. TFOs can categorize these patrols under an "Other" category, or under the type of criminal activity the air unit is monitoring for, such as "Robbery."

ASD should continue to collect detailed information about its helicopter flight activities to ensure the department can study the use and measure the effectiveness of police helicopter flights. Doing so will help the public, policymakers, and the department make informed decisions about operations and deployment strategies.

On Average, ASD Flew More Than 16,000 Hours and Logged More than 30,000 Activities Each Year

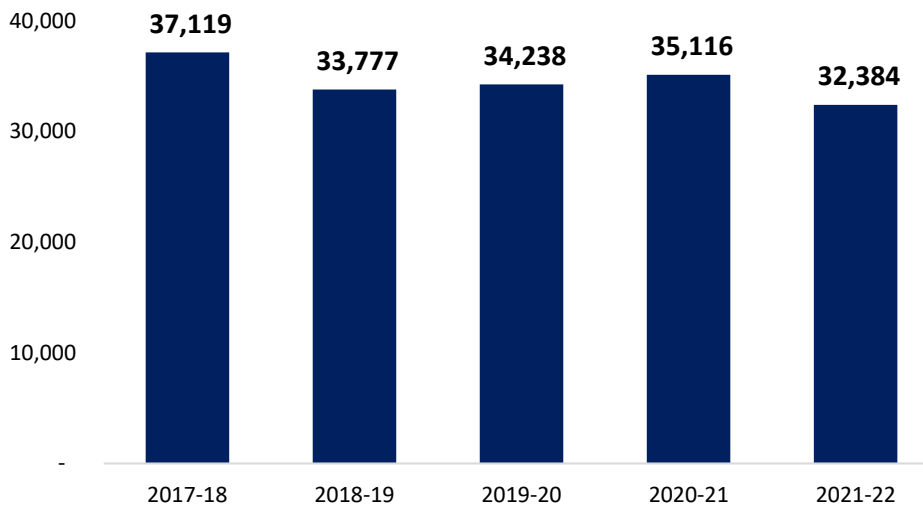
During our five-year scope period (FY 2018 – FY 2022), ASD flew a total of 80,687 hours, which is an average of just over 16,100 hours per fiscal year. Figure 4 shows the number of hours flown by the division in each year.

Figure 4: Hours Flown by ASD Helicopters (FY 2018 – FY 2022)



The LAPD’s air support program engages in tens of thousands of activities each year during its patrols. From FY 2018 through FY 2022, ASD engaged in a total of approximately 173,000 activities. Figure 5 shows the number of activities helicopters engaged in in each fiscal year.

Figure 5: ASD Helicopter Activities (FY 2018 – FY 2022)

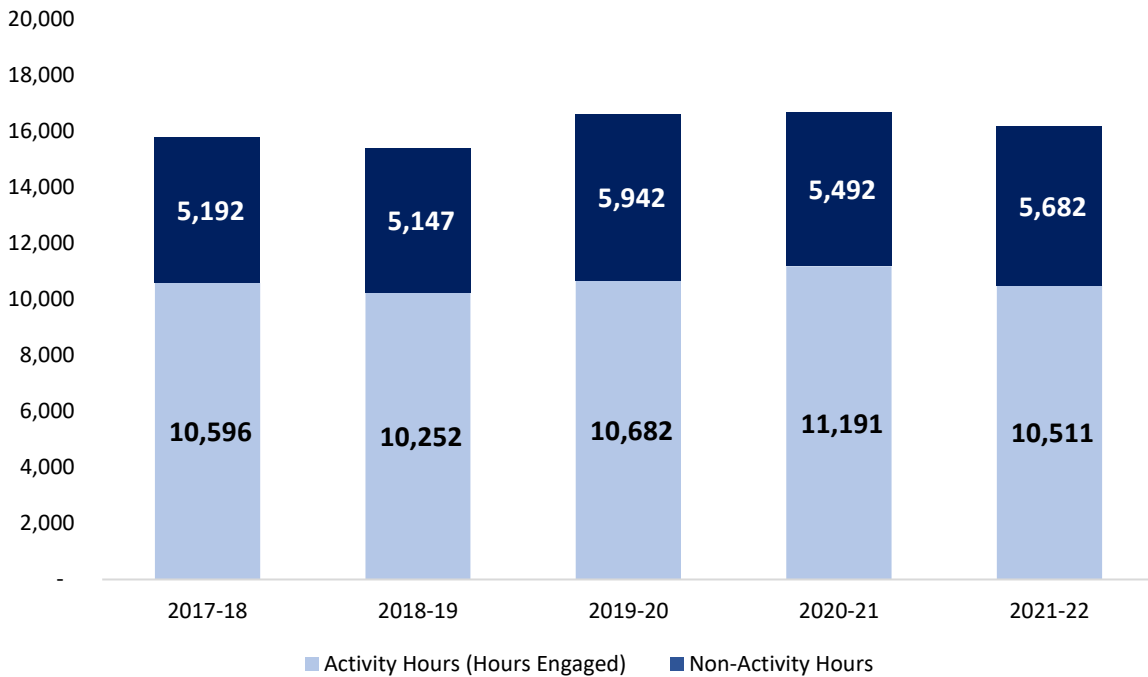


It is important to note that LAPD helicopters are not actively engaged in response, directed patrol, or general support flight activities at all times during a flight. Flight time where air units are not engaged in a specific activity includes the time it takes to prepare for and complete the take-off process, the time it takes to prepare for and complete the landing process, and time in between specific activities (i.e., non-activity time).

From FY 2018 through FY 2022, ASD was actively engaged in flight activities for approximately 53,200 hours, or an average of approximately 10,600 hours annually. Figure 6 shows the

number of hours in which helicopters were engaged in an activity for each fiscal year, compared to the total number of flight hours.

Figure 6: Total Activity and Non-Activity Hours



Given that LAPD helicopters are a near constant presence within Los Angeles, and come at a considerable cost, it is important for the LAPD to consider how it measures the performance of—and value added by—the LAPD’s helicopter operations, and in what situations LAPD helicopters provide the greatest public safety benefit.

ASD Flight Logs Include a Wide Variety of Activity Types, But the Overuse of the “Other” Category and the Lack of a “Directed Patrol” Category Obscures the Division’s Flight Data

LAPD helicopters engage in a wide variety of activities, which includes a mix of reactive police response activities, and proactive patrol operations. The Daily Flight Log includes a total of 27 different activity categories to account for helicopter activities (see **Appendix B** for a list of activity types). Our analysis showed that the most common LAPD helicopter flight activities, based on the number of activities and total flight hours, include those related to:

- felony incidents involving personal injury or harm;
- burglaries;
- grand theft auto;
- robberies,
- training missions; and
- other activities that otherwise do not align with a defined flight category.

There are also certain activities where each incident or flight lasts longer than other activity types. For example, “Training” makes up 4% of all activities, but 10% of all flight hours.

“Perimeter relief” makes up 1% of all activities, but 3% of all flight hours. The table below lists the top 15 activities by number of activities and by flight hours.

Table 2: Summary of ASD Helicopter Activities (FY 2018 – FY 2022)

Number of Activities			Flight Hours by Activity		
Total Activities: 172,634			Total Hours: 53,232		
Activity	Number	Percent	Activity	Time (hours)	Percent
Felony Person	58,007	34%	Felony Person	15,391	29%
Other	35,430	21%	Other	12,537	24%
Burglary	16,854	10%	Training	5,069	10%
Grand Theft Auto	16,408	10%	Burglary	4,540	9%
Robbery	14,249	8%	Grand Theft Auto	4,416	8%
Training	6,349	4%	Robbery	3,510	7%
Roof Checks	5,112	3%	Perimeter Relief	1,433	3%
Traffic Stop	3,572	2%	Surveillance	1,053	2%
Missing Person	3,520	2%	Roof Checks	905	2%
Misdemeanor Person	2,897	2%	Missing Person	904	2%
Burglary/Theft from Vehicle	1,878	1%	Misdemeanor Person	565	1%
Suicide	1,674	1%	Narcotics	547	1%
Perimeter Relief	1,519	1%	Transportation	459	1%
Transportation	1,124	1%	Burglary/Theft from Vehicle	449	1%
Surveillance	944	1%	Suicide	391	1%
All Other Categories	3,097	2%	All Other Categories	1,055	2%

It is important to note the common use of the “Other” category by ASD. **“Other” is the second most common activity type based on both number of activities and total flight hours.** “Other” constitutes 21% of all activities, and 24% of all Daily Flight Log flight hours. **The widespread use of this category based on the discretion of TFOs means that at least some of the activities captured under “Other” should be categorized in different activity categories.** Examples of “Other” activities that could be categorized under different categories include certain transportation flights, activities for specific crimes that appear to be miscategorized, and cases where the air unit responds to reports of criminal activity but officers on the ground have already resolved the situation upon arrival.

Directed Patrols – As previously noted, ASD’s Daily Flight Log does not include an activity category for directed patrols, which are dedicated patrols targeting specific geographic areas based on crime trends, or requests from area stations or bureaus. This makes analysis

of directed patrols activities difficult, despite the common occurrence of directed patrol activities.

To estimate the frequency of directed patrols by ASD units, we analyzed the activity source codes and comment fields of the ASD Daily Flight Log data to identify which logged activities were proactive patrols, rather than call response, training, or other general flight activities.¹¹ To develop an estimate for the number of directed patrols conducted from FY 2018 through FY 2022, we identified activities meeting at least one of the following two parameters.

- **Activities with the COMPSTAT source code** – COMPSTAT is the LAPD’s computer statistics program for crime tracking and trend analysis, and supports the department’s efforts to develop proactive policing strategies. The COMPSTAT source code indicates a helicopter is engaging in a proactive patrol activity.
- **Activities that reference the terms “directed patrol” or “extra patrol” in the comments field** – Aircrews also conduct directed patrols from sources other than COMPSTAT. For example, an LAPD station can request a dedicated patrol based on a specific trend it is observing, or in advance of an event that it believes warrants additional patrol resources. For each directed patrol activity, the aircrew summarizes the engagement in the comment field of the Daily Flight Log.

Based on the above criteria, there were a total of 33,750 activities which would be considered a directed patrol. **The total flight time for those activities was 10,283 hours, which would account for approximately 19% of the total logged activity hours.**

Less Than Half of Helicopter Flight Time Was Dedicated to the Highest Priority Crime Types

Given the considerable cost to operate the LAPD air unit each year, it is important that the department’s airborne resources are either dedicated to response activities related to the most serious types of crime, where the risk to the members of the public are greatest, or at a scale that is appropriate based on need.

The ASD Manual states

...airborne law enforcement operations include a continuing need for task assessment and prioritization. Except for pilot in command decision making responsibilities related to the safety of flight, law enforcement task assessment and prioritization remain a shared exercise among all involved aircrew members. Information received by the aircrew is utilized in forming decisions and modifying actions as additional information becomes known. The objective is to respond as quickly as possible to

¹¹ For each activity in the ASD Daily Flight Log, aircrew members identify the originating call type or reason for the activity. There are five source code categories. Source code categories include COMPSTAT, Observed, Officer, Radio, and Station.

those calls for service which would be better served with the addition of Department airborne assets.

When airborne, crew members monitor the dispatch frequency assigned to the patrol division over which the helicopter is flying. ASD aircrew members and Watch Commanders continuously assess calls for service. Information received by the aircrew, such as information about the type of crime in progress, risk to the public, and potential safety risks for police officers, are factors considered when making air unit response decisions. For example, similar to a ground-based patrol unit, a helicopter may respond to reports of a misdemeanor-level property crime, if it is available for response. However, this would not normally be a helicopter’s highest priority call for service. **In other words, ASD helicopters will typically respond to the most urgent call for service at any given time.**

To estimate the amount of time the division spends responding to the highest priority crime types relative to total time in the air, we categorized ASD’s Daily Flight Log’s 27 activity designations, as well as general flight time which is not logged under an activity category, into six categories, based on crime priority level or flight mission. The table below describes the priority levels and mission types used for this analysis, as well as the specific activity types that fall under each category. **It is important to note that these are general categories, and that each individual incident and ASD event is unique.**

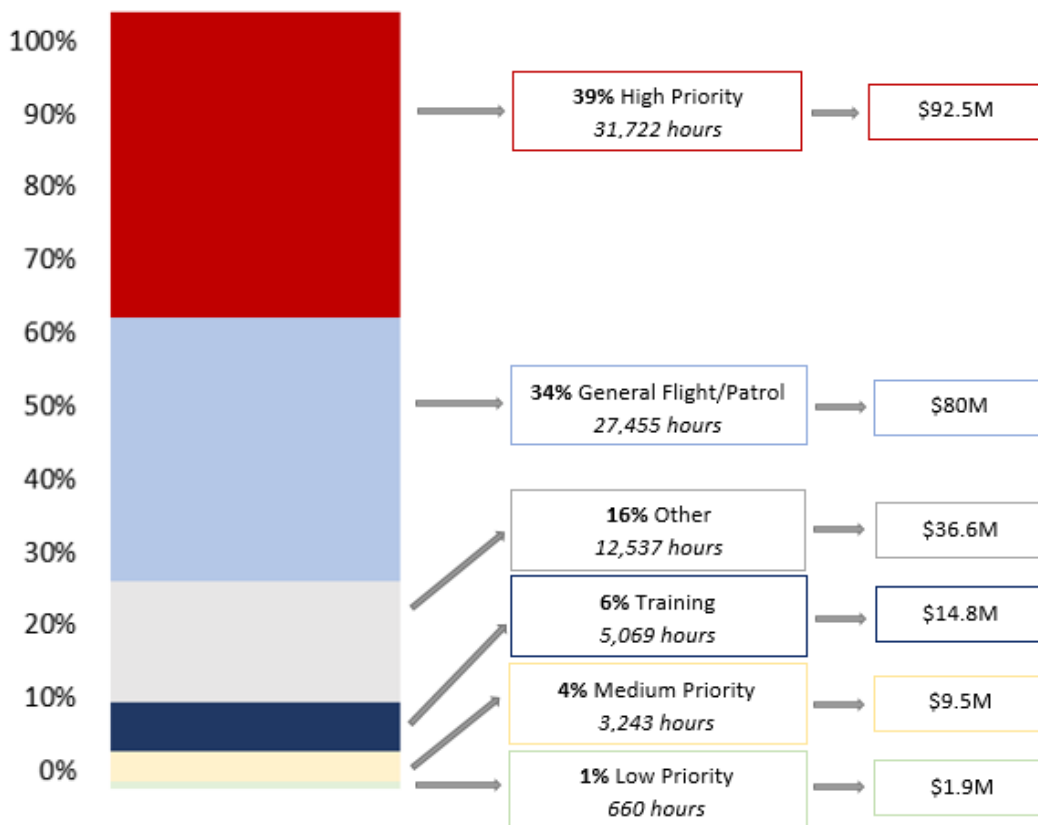
Table 3: ASD Activity Types by Priority

High Priority	Felony crimes, Part I crimes, and other incidents that create an urgent risk to life or property (<i>Burglary, Burglary/Theft from a Motor Vehicle, Felony Person-Other, Felony Property-Other, Grand Theft Auto, Missing Person, Perimeter Relief, Robbery, Roof Checks</i>)
Medium Priority	Misdemeanor crimes, Part II crimes, support activities for law enforcement activities and investigations, and other incidents that create moderate risk to public safety (<i>Extradition, Homeland Security/Surveillance, Homeland Security, Misdemeanor Person-Other, Misdemeanor Property-Other, Narcotics, Pedestrian Stop, Prisoner Pick Up, Suicide, Surveillance, Traffic Stop</i>)
Low Priority	Miscellaneous flights, transportation flights, public affairs flights, and other incidents that create lower risk to public safety risk (<i>Community Event, Other City Department Use/Transportation, Photo, Transportation; VIP Escort</i>)
General Flight/Patrol Time	General flight time in the air not cataloged in the Daily Flight Log under an ASD activity, such as general patrol time, time between calls, takeoffs, and landings

Other	Activities in the Daily Flight Log categorized under “Other” which are unique, and cannot be categorized under the above priority types (<i>Other</i>)
Training	Flights that support aircrew training, aircrew proficiency evaluation, and flight standardization reviews (<i>Training</i>)

Based on an analysis of ASD flight time dedicated to each of the above priority and mission categories, just under 40% of flight time was dedicated to the highest priority crime types. Figure 7 shows the percentage of ASD time spent on activities under each priority and mission category for FY 2018 through FY 2022, as well as the total number of hours flown and total estimated cost for each category. Cost figures are based on the five-year estimated average hourly cost of \$2,916.

Figure 7 – ASD Flight Time by Priority Level (FY 2018 – FY 2022)

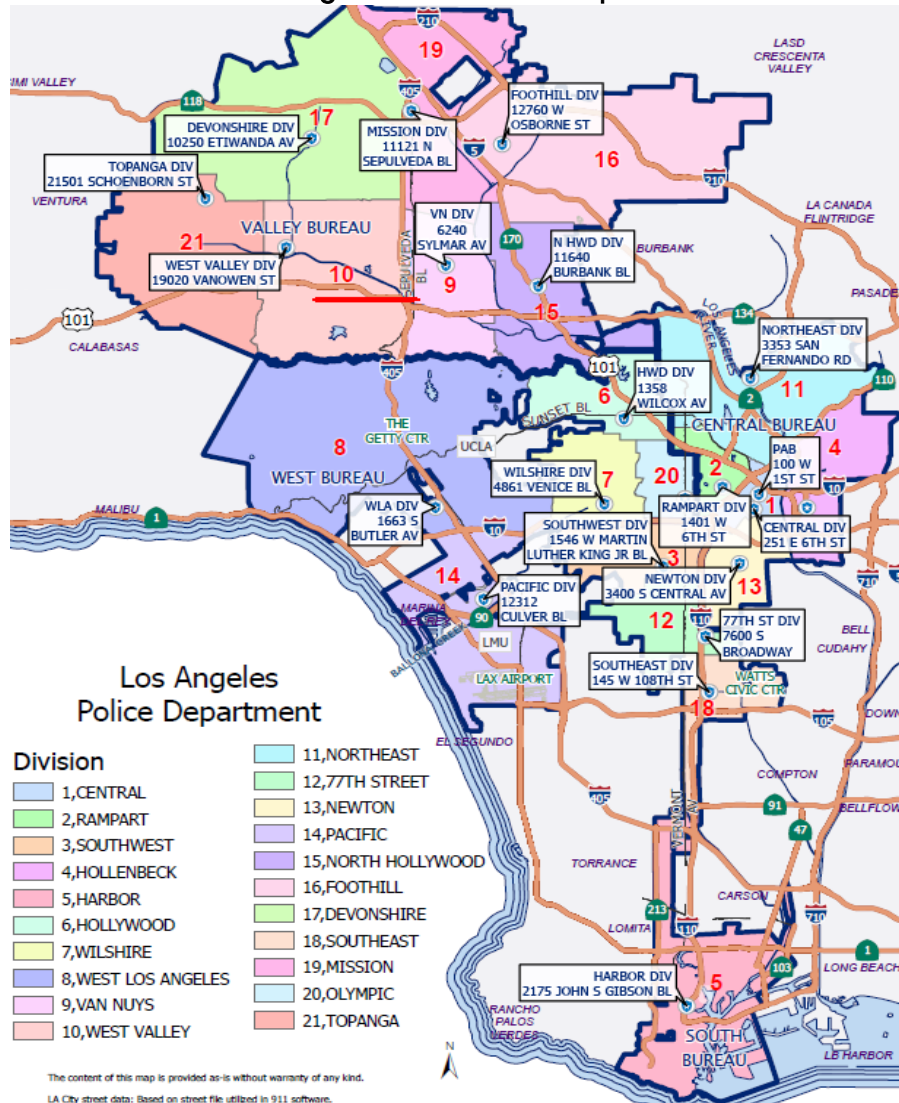


The stated mission of ASD helicopters is to serve as an aerial patrol asset that monitors radio calls and responds to high priority calls to support crime response and suppression efforts. However, based on the amount of time spent on flight activities other than the highest priority crimes, the LAPD and City policymakers need to consider whether its investment in air support activities is accomplishing its intended operational goal.

Some LAPD Areas Were Disproportionately Impacted by Helicopter Activities Relative to the Rate of Part I Crime

ASD's Daily Flight Log includes geographic information for each incident that receives a response. In the logs, this field is called "Area" and is based on the 21 geographic LAPD Divisions, which are commonly referred to as precincts or police stations, as location indicators. For incidents that span LAPD Areas or activities that span large areas of the City, ASD will indicate in which of the four LAPD bureaus the activity took place. ASD's Daily Flight Log includes an additional 30 Area categories that are not geographic, and instead refer to specific LAPD divisions or units.

Figure 8: LAPD Area Map



To assess the time and resources dedicated to the City's different geographic areas, we examined the amount of time LAPD helicopters spent in each LAPD Area, and compared the amount of time spent in each LAPD Area relative to the rate of Part I crime. This analysis

excluded incidents that do not have a specific LAPD Area identified for the “Area” data field, as well as activity categories that are not related to crime response or patrol.¹²

Table 4 shows the number of ASD crime response and patrol activities by LAPD Area, and those activities as a percentage in relation to all activities. The table includes a comparison to the number of Part I crime incidents in each LAPD Area, and the percentage of Part I crimes reported for that Area in relation to all crimes.¹³ LAPD Areas where the helicopter activity percentage is higher than the Part I crime percentage by more than 1% are highlighted in orange, and Areas where the crime percentage is higher than the helicopter activity percentage by more than 1% are highlighted in blue.

Table 4: ASD Helicopter Engagements by LAPD Area Compared to Part I Crime Rate

LAPD Area	ASD Activities	ASD Activity Percentage	Part I Incidents	Part I Percentage
77th Street	13,072	8.9%	39,976	6.4%
Central	6,561	4.4%	39,191	6.2%
Devonshire	5,873	4.0%	25,939	4.1%
Foothill	5,156	3.5%	20,676	3.3%
Harbor	3,894	2.6%	24,883	4.0%
Hollenbeck	7,793	5.3%	23,135	3.7%
Hollywood	7,887	5.3%	33,052	5.3%
Mission	6,985	4.7%	24,960	4.0%
N Hollywood	8,240	5.6%	32,482	5.2%
Newton	8,622	5.8%	31,200	5.0%
Northeast	7,728	5.2%	28,485	4.5%
Olympic	5,600	3.8%	30,549	4.9%
Pacific	4,881	3.3%	38,522	6.1%
Rampart	6,645	4.5%	27,488	4.4%
Southeast	7,911	5.4%	32,594	5.2%
Southwest	10,212	6.9%	36,656	5.8%
Topanga	5,770	3.9%	27,301	4.3%
Van Nuys	6,642	4.5%	26,740	4.3%
West LA	3,988	2.7%	28,867	4.6%
West Valley	7,347	5.0%	24,629	3.9%
Wilshire	6,774	4.6%	30,651	4.9%
Grand Total	147,581		627,976	

¹² The total number of activities included in this analysis was 147,581. The activities excluded for purposes of this analysis include Community Events, Extradition, Other City Department Use, Training, Transportation, VIP Escort, and Prisoner Pick Up. This excludes a total of 25,053 incidents, or 15% of all activities.

¹³ For this analysis, we used Part I crime data reported by the COMPSTAT Division, for the scope period FY 2018 to FY 2022. COMPSTAT data includes all reported incidents of crime, we used the date the crime was alleged to have occurred.

We found that ASD conducts a disproportionate share of crime response and patrol in certain LAPD Areas. The 77th Street Area in South Los Angeles experiences the largest share of flights relative to Part I crimes (8.9% of ASD activities compared to 6.4% of Part I crimes). Other Areas with larger shares of ASD activities compared to the Part I crime percentage include the Hollenbeck (East Los Angeles), Southwest, and West Valley Areas. The Pacific Area experiences the smallest share of activities (3.3% of ASD activities compared to 6.1% of Part I crimes). Other Areas with a smaller share of ASD activities compared to the Part I crime rate include West Los Angeles, Central, and Olympic (Central Los Angeles), and Harbor Areas.

Differences between the presence of police helicopters and reported crimes may indicate an outsized presence of helicopters over certain communities, and underrepresented presence in other communities. This can increase the risk that police helicopters, and any associated negative impacts, are disproportionately impacting certain communities. Alternatively, communities where ASD helicopter operations are less common may be receiving fewer resources to assist with apprehensions. As a whole, this suggests that helicopter flight activities may not directly correlate with actual criminal incidents in some areas, but instead could be driven by other factors, such as perceptions about crime and special flight requests from other LAPD divisions.

Although Police Helicopters Can Assist with Apprehensions, there is Little Evidence to Suggest That They Reduce or Deter Crime

Measuring the public safety impact of the LAPD’s police helicopters is difficult. Helicopters, with their aerial perspective, can be an effective policing tool in situations where information about conditions on the ground and the movement of persons is necessary to apprehend a person suspected of criminal activity. For example, helicopters are less likely to be hampered by terrain and physical structures than ground-based police units. Table 5 includes examples where LAPD air support units have provided support to officers on the ground.

Table 5: Examples of Support Provided by ASD Aircrews

Date	Time	Summary
7/10/2017	1:25 PM	ASD responded to reports of an <u>assault with a deadly weapon</u> by a suspect armed with a gun. The air unit searched for a suspect wearing a white shirt and gray pants last seen driving a green van. The air unit observed the vehicle and directed officers to the location of the vehicle. Officers stopped the vehicle, and took one suspect into custody.
5/11/2020	1:30 AM	ASD responded to a request to back up officers in pursuit of <u>grand theft auto</u> suspects. The air unit began tracking the vehicle, and observed the vehicle pull over. Two suspects fled the location. The air support unit assisted with establishment of a containment zone. Officers located the driver and took them into custody. Using an infrared camera, the air support unit located the second suspect

Date	Time	Summary
		hiding, and directed officers to the suspect's location. The individual was taken into custody.
11/18/2017	6:55 PM	ASD responded to a request from Central Division to search for two <u>lost hikers</u> in Griffith Park. Central Division provided search coordinates, and the air support unit was able to locate the hikers. The air unit directed Park Rangers to the subjects' location.
7/3/2019	6:45 PM	ASD responded to reports of <u>kidnapping</u> in progress, with a suspect driving a green four door vehicle. The air support unit observed the vehicle and directed Metropolitan Division units to the location of the vehicle. Metropolitan Division officers stopped the suspect and took them into custody.
6/21/2022	4:00 PM	ASD responded to a <u>burglary</u> incident, with the suspect inside a residence. The air support unit assisted with the establishment of a containment area around the residence, and observed the scene while officers searched the residence. Officers took one suspect into custody.

According to the LAPD, the aerial vantage point provided by helicopters can help officers avoid outcomes that put officers and members of the public at risk, such as officer involved shootings, and vehicle accidents resulting from pursuits. According to the LAPD, avoiding these types of incidents results in safer outcomes and cost savings for the City, though the department acknowledged that quantifying these cost savings would be difficult.

While there are many use cases for helicopters related to the apprehension of suspects, there is very little published research examining whether police helicopters and proactive helicopter patrols are an effective deterrent of criminal activity. Among the first studies about the effectiveness of police helicopters was a Jet Propulsion Laboratory (JPL) study initiated in 1968 and published in 1971 by the National Aeronautics and Space Administration. The study analyzed the relatively new application of helicopters for policing activities. JPL partnered with the LAPD helicopter program to conduct the study.

JPL found that helicopters were effective in preventing certain types of crime, particularly crimes related to auto theft and robberies. It also determined that LAPD helicopters increased apprehension rates for incidents where they responded. However, police technology, strategies, and tactics have modernized and changed substantially in the 52 years since JPL began its study of LAPD helicopters, and it is unlikely that all of the conclusions developed by the research team would apply today.

A 2001 study from Canada offered mixed conclusions. The study was published by the Canadian Police Research Centre, and funded by government agencies and private organizations. The study examined police helicopter studies and data from jurisdictions in

North America and the United Kingdom, and found there was evidence showing increased efficiency, as the time per call tended to be less with the presence of a helicopter. The research also showed apprehensions were more likely with the involvement of a helicopter. However, the study concluded there was no data to substantiate claims that the use of helicopters by police departments deters crime, or suppresses crime rates. It also found that conducting helicopter patrols in one geographic area did not displace crime or push incidents into surrounding areas.

Our review does not make an independent determination as to whether the LAPD's helicopter program actually deters criminal activity. However, based on the types of flight data collected by ASD, which is difficult to compare to any type of control group, and the lack of published research confirming the crime deterrence effect of helicopter patrols, **neither the Controller's Office review nor the LAPD would be able to support a conclusion that police helicopters actually deter crime in the City.**

Performance Metrics for LAPD Helicopter Operations – Measuring the performance of LAPD's air support program is difficult. In addition to the data collection issues described in this report, it is difficult to quantify or measure the value added by LAPD helicopters because police response effectiveness is often a matter of perspective. For example, it is difficult to quantify the sense of safety a ground-based police officer feels when an LAPD helicopter is providing aerial support. Alternatively, it is difficult to determine whether the use of a helicopter is necessary in cases where a helicopter responds to a call for service, but the aircrew does not observe evidence of criminal activity or cannot locate an individual suspected of criminal activity.

ASD does not currently have an established set of performance metrics that it reports on a regular basis to the Los Angeles Board of Police Commissioners, City Council, or the public. It also does not report any specific performance metrics as part of the department's annual budget development and approval process.

ASD reports information about its flight operations on an ad-hoc basis, when requested by the Los Angeles Board of Police Commissioners. Metrics ASD has reported in the past include the number of hours flown, the number of times helicopters were the first to respond to a scene, the number of felony arrests initiated during responses, and the number of firearms recovered during incidents. While this information does provide information about the day-to-day activities of ASD, these data points do not focus on outcomes, and there does not appear to be any formal evaluation by ASD that measures performance against established goals or objectives.

Formal analysis of ASD performance on an ongoing basis is needed given the program's estimated annual cost of nearly \$50 million. The analysis should specifically focus on areas directly related to ASD's mission and goals. Performance metrics should support measurement of the usefulness of helicopters for apprehensions, the impact of directed patrols on crime rates, and the amount of flight time spent on call response, directed patrols, and other activities not directly related to call response and patrol.

This report considers multiple metrics which could be considered a general measure of ASD performance and the value added by the City's police helicopter investment. Those metrics, which are based on data from the Daily Flight Log, are listed below and cover the activities of LAPD helicopters from FY 2018 through FY 2022.

- **20%** of activities involved an incident where an air unit was the first to arrive at the scene of an incident.
- **20%** of activities involved the arrest of a suspect. It is important to note that this metric does not mean a suspect would not have been apprehended if not for the assistance of the air unit. ASD records the arrest of an individual whenever an arrest occurs while a helicopter is providing support. Additional details about the involvement of the helicopter for these arrests would be useful. For example, the Houston Police Department's Air Support Unit specifically tracks when suspects were found exclusively because of the Unit's presence (i.e., the patrol officers on the ground had not seen the suspect, or the suspect had eluded officers but were found by the helicopters).
- **1%** of activities involved the recovery of a gun. Similar to the arrest data described above, this metric does not necessarily mean a gun would not have been recovered if not for the assistance of the air unit.

The current rates at which ASD helicopters are involved in the arrest of suspects and the recovery of guns, as well as the need for new data about the role of air units during those interactions, highlights the need for additional analysis related to performance outcomes for LAPD's helicopters.

Recommendations

To better understand the performance and impact of the helicopter program, ASD should:

1. Update Daily Flight Log data entry fields to capture the following:
 - a. Responses to Part I crimes;
 - b. Directed patrols; and
 - c. The LAPD area in which an activity takes place, regardless of the flight type or its purpose.
2. Establish a formal set of performance metrics and performance goals that are routinely gathered, assessed, and made public so that residents, policymakers, the Board of Police Commissioners, LAPD management, and ASD can monitor performance on a regular basis. The performance metrics and performance goals should, at a minimum report on:
 - a. The impact of LAPD helicopters on arrests (i.e., when the aircrew is responsible for locating the individual or individuals apprehended);
 - b. The impact of LAPD helicopters on the recovery of firearms (i.e., when the aircrew is responsible for locating the armed individual or firearm);
 - c. The number of and time spent on directed patrols;

- d. the number of activities associated with and the time spent on responding to Part I crimes;
 - e. The number of activities associated with and the time spent on responding to incidents other than Part I crimes;
 - f. The number of activities associated with and time spent on activities other than incident response; and
 - g. The number of activities associated with and time spent in each of the LAPD areas.
3. Transmit for review to the Board of Police Commissioners, at least annually, a report detailing the activities and impact of ASD operations. The report should include performance data and performance goals described in Recommendation 2.
4. Update the ASD Manual to establish policies for the planning and use of directed patrols. The policy should include guidance on criminal activity types and trends that warrant directed patrols, and consider the frequency of directed patrols based on geographic area to ensure communities are not subject to excessive or unnecessary helicopter patrols.

II. THE LAPD SHOULD LIMIT THE USE OF HELICOPTERS FOR CEREMONIAL AND TRANSPORTATION PURPOSES

The LAPD Manual states that department aircraft shall be used as a “tactical aid to regular police operations” and “may be used for specific assignments that will assist in furthering the objectives of the department.” It also allows for the transportation of staff officers when there is an urgent transportation need. **The ASD Manual provides additional direction regarding the use of LAPD helicopters for transportation purposes, as well as flights related to ceremonies and special events.**

There are situations where ceremonial flights and transportation flights may be appropriate, and provide a legitimate benefit to the LAPD. However, neither the LAPD manual nor the ASD Manual provide sufficient rules related to ceremonial and transportation flights. **Based on our review of ASD Daily Flight Log entries, the need for some of these flights is questionable.** Several flights also appear to provide little to no public safety benefit, and represent either an inefficient or inappropriate use of LAPD resources.

LAPD Policies Governing the Use of LAPD Helicopters for Ceremonial Fly-bys Are Insufficient

The ASD manual allows ASD aircrews to engage in ceremonial flights known as fly-bys. The ASD Manual defines fly-bys as helicopter flights over a ceremony or special event for the purpose of acknowledging persons or events on the ground, or demonstrating the capabilities of the LAPD’s airborne law enforcement program. Aircrews may use an aircraft’s public address and siren system as part of fly-by engagement. Pilots are not allowed to

conduct any special aerobatic maneuvers. According to ASD management, fly-bys play an important role in community engagement and employee recruitment. LAPD officers assigned to bureaus, stations, specialized units, and community relations groups may submit requests for fly-bys to ASD.

Fly-bys that do not include the aircraft landing do not require any prior written approval. The on-duty Watch Commander is authorized to approve fly-by engagements and assign available assets within City limits. Any fly-by occurring outside of City limits requires the approval of the ASD Commanding Officer. However, **the division's policy does not provide any specific guidelines dictating the types of LAPD events, local community events, special events, or aviation community events for which aircrews may conduct flyovers, nor does it require a documented justification or purpose for the flyover engagement.** Insufficient guidelines governing the division's fly-by activities and the discretionary nature of the flights creates an increased likelihood of fly-by engagements that constitute an inefficient or improper use of air unit assets.

We reviewed ASD's Daily Flight Log data to determine how many flights between FY 2018 and FY 2022 could be considered a fly-by activity. Fly-by is not an activity category in the flight log. To flag flights that could be considered fly-bys, we identified all log entries under the activity code "Community Event." We also identified any log entries with the term "fly-by" and similar variations, and eliminated any entries that contained these terms but did not appear to be a fly-by activity.¹⁴

Based on our review, we identified 783 fly-by activities during our five-year scope period. ASD engaged in fly-bys for several different types of events, such as LAPD academy graduations, retirement ceremonies, funerals, community events, and events and ceremonies at police stations. To assess the types of fly-over engagements carried out by ASD flight crews, we reviewed each flyover activity and, based on the information available in the comments field, assigned one of six categories. Table 6 shows each fly-by subcategory, and the number of activities falling under each category based on our review. It also includes the total amount of time spent on those events, as well as the estimated cost of those flights, based on the five-year average hourly operating cost of \$2,916.

¹⁴ Terms included in the search parameters included fly-by, fly by, flyby, fly-over, fly over, and flyover.

Table 6: Fly-by Activities Summary

Category	Number of Activities	Total Activity Time (hh:mm)	Cost
Community Event	345	67:58	\$198,160
LAPD Event	186	42:09	\$122,890
Not Enough Information	161	29:50	\$86,980
Funeral or Memorial	60	31:53	\$92,957
Other	23	10:52	\$31,682
Outside Law Enforcement Agency Event	8	1:45	\$5,102
Total	783	184:27	\$537,773

Some of the engagement activities are of questionable or likely little public safety value—109 fly-by activities were associated with retirement ceremonies and seven were for fly-bys at golf tournaments. Assessing the appropriateness of LAPD air support asset use for funerals and memorial events is more difficult. Many fly-by engagements at funerals were for retired LAPD officers or other employees, as opposed to acute events like officers or other employees killed in the line of duty. Daily Flight Log data does not contain sufficient descriptions to determine exactly how many funeral fly-bys were for retired employees.

The lack of clear rules and expectations for fly-by activities increases the likelihood that ASD helicopters engage in ceremonial activities that are not aligned with the primary mission of the division, or activities that constitute either an inefficient or inappropriate use of City resources. During the review of ASD fly-by activities, we identified multiple examples of fly-by engagements that neither provided a direct public safety benefit, nor provided any direct benefit to the department or its workforce. Several of those examples are summarized below.

Table 7: Examples of Fly-by Activities with Limited or No Public Safety Benefit

Date	Time	Duration	Summary
4/26/2022	11:00 AM	2:00	An aircrew conducted a fly-by at the funeral of a retired LAPD sergeant that took place outside of Los Angeles City limits. The flight lasted approximately 2 hours.
7/30/2019	12:20 PM	1:20	An aircrew remained in the area of the 77 th Street Community Police Station for approximately one hour and 20 minutes in order to conduct a fly-by at the retirement ceremony of a high-ranking LAPD official.
8/26/2019	9:05 AM	0:29	An aircrew conducted a fly-by for a golf tournament benefiting an LAPD-affiliated nonprofit organization that raises funds to buy supplies and equipment for the department. The flight lasted approximately 30 minutes.

Date	Time	Duration	Summary
5/28/2022	11:10 AM	0:20	An aircrew conducted a fly-by at the retirement ceremony of an Orange County police chief. The ceremony was outside of Los Angeles City limits. The flight lasted approximately 20 minutes.

New policies governing the specific types of fly-by activities aircrews can engage in are needed to ensure ASD helicopter assets are not used for activities that do not provide discernable public safety benefits or benefits to the department. The policy should describe the specific types of events for which fly-by activities may be authorized, and place limits on fly-by engagements for events not directly associated with the LAPD. The policy should also establish limits on the amount of time air units may be assigned to fly-over engagements.

ASD Should Only Transport Personnel to Meet Urgent Public Safety Needs

The LAPD Manual allows for the transportation of staff officers on what are known as administrative flights. Administrative flights may be requested for major incidents that require a staff officer’s presence, where time to respond to the location is of the essence, and regular use of a City vehicle would create a problem in facilitating a timely response. Administrative flights are to be approved by the ASD Commanding Officer, or by the ASD Watch Commander. Written pre-approval is not required for administrative flights. ASD maintains a record of administrative flights in the daily logs maintained by Watch Commanders.

ASD also conducts “special flights”, which are defined in the ASD Manual as flights that support the tactical or investigative activities of other LAPD bureaus. Special flights may include the transportation of individuals, but are not considered administrative flights. Examples include transporting specialized officers for tactical response purposes, or taking aerial photographs for evidence collection purposes. Special flights require written pre-approval by the requesting bureau and ASD.

Similar to ASD’s management of fly-by activities, the division exercises a wide degree of discretion with regard to transportation flights. We reviewed ASD’s Daily Flight Log data to determine how many flights between FY 2018 and FY 2022 could be considered a transportation activity. To isolate flights that could be considered transportation, we identified all log entries under the activity code “Transportation” and any log entries with similar terms, and eliminated any entries that contained these terms but did not appear to be a transportation activity.¹⁵

Based on our review, we identified 2,592 transportation activities during the five-year scope period. ASD engaged in several different types of transportation events, such as the transportation of ASD aircrew members between Hooper Heliport and Van Nuys Airport, the

¹⁵ Terms included in the search parameters included transport, picked up, pick-up, pick up, ride-along, ride along, pax, mechanic, and drop off

transportation of LAPD employees to LAPD facilities, and the transportation of law enforcement officers for the purpose of conducting aerial surveys of critical infrastructure.

To fully assess the types of transportation engagements carried out by ASD flight crews, we reviewed each transportation activity and, based on the information available in the comments field, assigned one of ten categories. The table below shows each transportation subcategory, and the number of activities that fall under each category. It also includes the total amount of time spent on those categories, as well as the estimated cost of those flights, based on the five-year average hourly operating cost of \$2,916.

Table 8: Summary of Transportation Activities

Category	Number of Activities	Total Activity Time (hh:mm)	Cost
Unknown Passenger	1,158	295:13	\$860,719
LAPD Employee	535	208:50	\$608,864
Not Enough Information	250	100:27	\$292,867
Helicopter Relocation (Maintenance)	165	89:52	\$262,011
Helicopter Parts/Equipment (Maintenance)	145	49:10	\$143,348
GSD Maintenance Employee	122	52:55	\$154,281
Multi-purpose	90	29:32	\$86,106
Port Police Employee	82	30:11	\$88,001
Other Passenger	37	29:37	\$86,349
LA City Employee	8	5:00	\$14,578
Total	2,592	890:47	\$2,597,123

Based on the available information in the Daily Flight Log, we could confirm that 535 of the division’s transportation flights involved the transportation of LAPD personnel, with another 82 flights supporting the City’s Los Angeles Port Police. We were able to confirm that 165 flights involved the relocation of an aircraft for maintenance purposes, or to bring an aircraft back into service following maintenance work or an inspection.

Due to a lack of detailed information for many log entries, it was difficult to determine the specific purpose of some transportation flights, or the individual or agency benefiting from the transportation flight. For 1,158 log entries, we were unable to determine the employing department or agency of a passenger listed in the log entry, or the entry refers to a passenger, but no additional information is provided. For another 250 log entries, there was insufficient information to make determinations regarding the passenger or purpose of the flight.

While there are situations where the transportation of passengers is warranted because the flights directly support police operations, some of ASD’s transportation flights appear to be inconsistent with LAPD and ASD manual provisions governing the use of department aircraft.

Those provisions generally allow for transportation flights in situations where an LAPD officer’s presence is required in response to a major incident, and the use of a vehicle is impractical, and for flights that support the tactical operations or investigations of other LAPD bureaus.

However, a number of transportation flights do not align with either purpose. For example, we identified 122 instances of aircrews transporting GSD maintenance specialists to facilitate helicopter repairs, eight instances of aircrews transporting the employees of other City departments, and 37 instances of aircrews transporting individuals not employed by the City of Los Angeles.¹⁶ It was also difficult to determine the specific purpose and need for many flights where LAPD employees are transported between locations, or the type of incident or event that warranted transportation of an employee by ASD, as the purpose for the transportation flight was not described in the entry.¹⁷

Similar to the use of helicopters for fly-by engagements, the department should minimize the use of helicopters for transportation needs that do not directly support the public safety mission of the department, and ground-based units either on patrol, conducting investigations, or carrying out special operations. During our review of transportation activities, we identified multiple examples of transportation flights that do not appear to provide a direct public safety benefit. Several of those examples are summarized below.

Table 9: Examples of Transportation Activities with Limited or No Public Safety Benefit

Date	Time	Duration	Summary
11/8/2018	10:00 AM	6:00	An aircrew conducted passenger shuttle flights to and from aviation facilities in Lancaster, Torrance, Camarillo, Van Nuys, and March Air Reserve Base in Riverside County for an ASD sponsored “Chili Fly-in.” The event acknowledges air traffic controllers in the region. Other local police air support units participate, and the event is considered a regional coordination exercise.
2/6/2019	7:00 PM	4:00	An aircrew transported two high ranking LAPD officials from the LAPD headquarters building in downtown Los Angeles to a meeting at the Harbor Community Police Station. The air unit transported

¹⁶ Instances of aircrews transporting individuals not employed by the City of Los Angeles does not necessarily include ride along flights. For ride along flights, individuals are passengers on a normal patrol flight, which is not considered a transportation flight.

¹⁷ Additional information about administrative flights and special flights may be included in Watch Commander logs, which are documents describing helicopter activities and management decisions during a shift. Our review did not include an assessment of these documents.

Date	Time	Duration	Summary
			the officials back to LAPD headquarters after the meeting. The activity lasted approximately four hours.
1/25/2020	11:00 AM	2:00	An aircrew conducted dedicated ride along flights for LAPD Cadets (i.e., the ride-along flight was not associated with an ASTRO patrol mission). ¹⁸ The flights lasted for approximately two hours.
10/30/2018	2:30 PM	1:00	An aircrew picked up a doctor from the Los Angeles County Sheriff's Department's West Hollywood Station and transported the individual to the LAPD's Hooper Heliport to conduct medical evaluations of ASD employees. The aircrew then transported the doctor back to the West Hollywood Station. The activity lasted approximately one hour.
2/27/2020	1:30 PM	0:50	An aircrew transported a photographer that attended the retirement party of a high-ranking LAPD official to a Ventura County Sheriff's Department facility outside of Los Angeles City limits. The activity lasted approximately 50 minutes.

Additional guidelines in the LAPD Manual or ASD Manual related to the use of ASD helicopters for administrative transportation purposes and special flights are needed to ensure clear use policies and improved recordkeeping requirements are in place. Updates to the policy should describe the specific types of events and passengers for which administrative flights may be authorized, and place limits on transportation activities that are not directly associated with the unit's public safety mission.

Recommendations

To provide clarity for the use of helicopters for ceremonial and transportation flights and improve the department's ability to track such flights, ASD should:

5. Update the ASD Manual to revise its policy for fly-by engagements. Specifically, the policy update should:
 - a. Limit fly-by engagements to official LAPD events and acknowledgments for public safety professionals killed in the line of duty;
 - b. Describe the specific events and operational circumstances for which fly-by engagements may be authorized;
 - c. Describe limits on the amount of time an aircraft may be diverted from patrol duties in order to conduct a fly-by; and

¹⁸ The LAPD Cadet Program is a youth engagement program where young people aged 13 to 17 volunteer for the Police Department.

- d. Establish a formal, documented pre-approval process for the authorization of fly-by activities.
6. Establish an activity field for fly-by engagements in the Daily Flight Log in order to improve the department's ability to track fly-by engagements.
7. Update the ASD Manual to revise its policy for administrative flights (i.e., transportation flights). Specifically, the policy update should:
 - e. Limit administrative flights to the transportation of law enforcement personnel responding to major incidents and other critical public safety missions;
 - f. Describe the specific events and operational circumstances for which administrative flights may be authorized; and
 - g. Establish a formal, documented pre-approval process for the authorization of transportation flights. This process may exclude the transportation of ASD personnel for operational purposes.
8. Update Daily Flight Log fields to clearly delineate between transportation flights related to maintenance, the transportation of ASD personnel for operational purposes, and the transportation of law enforcement personnel for public safety purposes.

III. DAILY FLIGHT LOG DATA QUALITY AND INFORMATION MANAGEMENT PRACTICES NEED IMPROVEMENT

ASD's daily flight logs represent an opportunity to gain key insights related to the positive and negative impacts of the program. However, we identified several inconsistencies and data quality issues. The department's acquisition and management of the Daily Flight Log application also created procurement and data security concerns.

Daily Flight Log Data Entry Can Be Inconsistent

TFOs keep a detailed flight log of each helicopter activity. TFOs take handwritten notes while in the air, and then manually transcribe the details of each into a web-based, digital flight log with 22 different data fields related to the activity.¹⁹ However, the process of recording and then manually entering activity information into the Daily Flight Log is susceptible to human error, as information is initially handwritten in shorthand while in flight, and then digitally transcribed.

ASD personnel acknowledged that entering each activity into the web-based portal is labor intensive and time consuming. Furthermore, the system lacks certain data entry or validation controls to mitigate the risk of data entry errors. For example, TFOs manually enter the start time and end time for each activity, but no control exists to flag instances where employees enter activity start times that come after the activity end time, and vice versa. A 15-minute

¹⁹ ASD logged 172,634 entries from FY 2018 through FY 2022.

incident that started at 7:30 pm and ends at 6:45 pm, if transposed, appears as a 23 hour and 15-minute activity.

Furthermore, the ASD manual does not provide specific guidance related to Daily Flight Log data entry, nor does it provide clear definitions for each data field and category. This lack of clarity likely contributes to activity classification inconsistencies where similar incidents are sometimes categorized differently. This is demonstrated by the table below, where three incidents with similar descriptions are categorized as three different activity types. Clearer standards for the entry of flight activity information into the Daily Flight Log would improve data reliability.

Table 10: Similar Activities that Resulted in Different Classifications

Date	Start Time	Duration	Comment	Activity type
11/30/2019	2:00 PM	00:10	Conducted high visibility patrol in the area for 211 / 415 gang activity.	Felony Person - Other
11/30/2019	2:15 PM	00:10	Conducted high visibility patrol in the area of Macy's Fashion Square 211 / 415 gang activity.	Burglary/Theft from a Motor Vehicle
11/30/2019	2:30 PM	00:15	Conducted high visibility patrol in the area for 211 / 415 gang activity.	Robbery

As noted earlier in this report, the lack of an activity category capturing directed patrol engagements may impact the conclusions that can be drawn from Daily Flight Log data. Directed patrols are dedicated patrol activities intended to detect and deter criminal activity, but are not considered responses to criminal activity. ASD personnel often catalog directed patrols under "Other". However, staff frequently categorize directed patrols under the activity type of the crime category they are seeking to deter. For example, there are 3,071 incidents that are categorized under the "Felony Person - Other" activity code, where the flight description field simply states "extra patrol". New guidelines and quality control measures for data entry would improve the quality of ASD information.

ASD Has Not Exercised Adequate Oversight of the Daily Flight Log System

ASD's Daily Flight Log system is a crucial information management and analysis tool and an essential part of their daily operations and reporting functions. However, during the course of this review, we determined that ASD has not exercised adequate oversight of the system. The software that ASD uses to log flight information is a custom-built system developed by a subcontractor of Airbus, the supplier of LAPD helicopters. The subcontractor makes specialized hardware for police helicopters, including high definition cameras. This vendor developed the Daily Flight Log system with ASD in approximately 2015 to create a browser-

based application with data fields and functionality that enable ASD to capture information about flight activities.

According to LAPD officials and representatives of the subcontractor, the vendor developed the system at no cost to the LAPD, and there is no contract in place between the LAPD and the vendor regarding system development, maintenance, data access, data management, data security, or data ownership. Additionally, the data entered into the Daily Flight Log system is hosted on the vendor's network rather than an LAPD-controlled network, and at no cost to the LAPD. The LAPD's Information Technology Bureau does not support the Daily Flight Log application in any way, and could not confirm whether any assessment of IT security or controls were conducted. This results in potential data security risks, as well as the risk that data can be misused or withheld from the department.²⁰

The lack of a contract and the no-cost services provided by the vendor also results in procurement-related ethics risks. Specifically, the absence of any formal procurement process, whether it be competitive or sole-source, means the LAPD did not assess whether the vendor was best qualified to provide the department with a flight log system. Furthermore, the no cost services related to the flight log could create pressure to select the vendor when purchasing other products.

City departments should solicit bids when seeking to procure goods and services. Los Angeles City Charter Section 370 states

Every contract involving consideration reasonably valued at more than an amount specified by ordinance shall, except in cases of urgent necessity for the preservation of life, health or property as provided in Section 371(e)(5), be made in writing, or other manner as provided by ordinance. The draft of the contract shall be approved by the board, officer or employee authorized to make the contract.

Los Angeles City Charter Section 371 goes on to state

Contracts shall be let to the lowest responsive and responsible bidder furnishing satisfactory security for performance. This determination may be made on the basis of the lowest ultimate cost of the items in place and use.

It is important to note that certain contracts may be exempt from competitive bidding requirements, including professional, scientific, expert, technical, or other special needs for which the contracting authority finds that competitive bidding is neither practicable nor advantageous. The Controller's Office has referred this matter to the City Attorney's Office. The City Attorney's Office is advising LAPD concerning the legal issues associated with any potential security and procurement risks.

²⁰ The vendor fully cooperated with the Controller's Office and provided all Daily Flight Log data upon request.

Recommendations

To improve data quality and consistency and reduce opportunities for human error during the data entry process, ASD should:

9. Update the ASD Manual to expand guidance on Daily Flight Log data entry requirements and standardization. Manual updates should include clear definitions for data fields (activity, area, etc.), and minimum requirements for free-form comment fields.
10. Coordinate with the Daily Flight Log system provider to develop data validation controls to prevent erroneous entries (e.g., flight or activity end times that precede the entered start time).

To ensure that City Charter contracting requirements are met and that data best practices are followed, LAPD, in conjunction with the Office of the City Attorney, should:

11. Develop a formal, legally enforceable agreement governing the relationship between the LAPD and the provider of the Daily Flight Log system. The agreement should clarify the LAPD's ownership of data entered into the system, and ensure the vendor's management of LAPD data complies with the City and LAPD data use and security policies.

IV. THE LAPD SHOULD IMPROVE TRANSPARENCY AND SEEK TO MINIMIZE NEGATIVE QUALITY-OF-LIFE AND ENVIRONMENTAL IMPACTS ON THE COMMUNITY

It is essential that the LAPD recognize the value of public participation when developing policies and strategies that impact the lives of constituents. As part of this review, we sought community input to gauge Angelenos' views on the LAPD's helicopter program, including their level of support or issues of concern. Opinions about the LAPD's use of helicopters were mixed, with some community members in favor of using police helicopters for response and patrol activities. Others were concerned about the potential for over-policing, and had serious concerns about noise and environmental impacts. Many people wanted to know more about ASD's operations, regardless of their level of support for the program.

The LAPD, to the greatest extent possible, should consider the needs and concerns of the community, and limit negative quality-of-life impacts of helicopters. Research suggests that the consistent presence of helicopters can have negative environmental and quality-of-life impacts. Helicopter noise can impact sleep quality and increase stress, and helicopters rely on jet fuel which creates carbon emissions and pollution. These negative impacts are important to consider when assessing the size, scope, and role of ASD operations.

Improving Transparency and Creating Avenues for Community Input

To better understand community members' experiences and viewpoints surrounding LAPD's use of helicopters, the Controller's Office worked with the City's Youth Development Department, the City's LA Civil Rights Department, and the Valley Alliance of Neighborhood Councils to hold three community listening sessions. One listening session sought input from young people, one session sought input from residents of South Los Angeles communities, and one sought input from residents of the San Fernando Valley. The listening sessions took place between August and October 2023.

Listening session participants were asked about the following:

- the frequency with which they are exposed to LAPD helicopters at their home or place of work, and their immediate feelings when they observe LAPD helicopters;
- the impact LAPD helicopters have on their neighborhoods and their quality of life;
- whether helicopters make them feel safe;
- the types of crimes LAPD helicopters should respond to; and
- whether additional information and data about LAPD helicopters would improve their understanding of the role and value of police helicopters.

The majority of participants expressed support for LAPD helicopters, particularly in situations where helicopters are responding to violent crimes. Community members explained that situations such as robberies, pursuits of violent crime suspects, and active shooter incidents, were the types of situations where they considered LAPD helicopter use to be essential. Some residents expressed a desire for a highly visible police presence in their neighborhood to discourage criminal activity, even if the helicopters are not actively engaged in crime response, because that police presence increased their feelings of personal safety.

Below are several statements from community members expressing support for the use of helicopters by the LAPD.

"I feel safer when I see [police helicopters] because my neighborhood is a violent one."

"I would rather have helicopters in the sky pursuing suspects than ground vehicles because I feel that suspects drive more recklessly when pursued by ground patrol cars."

"I don't mind the presence of helicopters considering I see ground patrol cars infrequently."

"It doesn't make sense [to reduce helicopter use] when the number of sworn officers are low and they are struggling to fill open positions."

"I feel secure because when they circle I know they are taking care of public safety and doing their job."

Although the majority of listening session participants agreed that LAPD helicopters were an important tool for the department when responding to serious crimes, **multiple community**

members voiced concerns about helicopter noise and environmental impacts, and participants did not always support the use of helicopters for proactive patrol activities due to those quality of life impacts. Other residents expressed concerns about the cost of LAPD helicopter operations, given that the City appears to lack adequate resources to effectively respond to other pressing matters.

One key concern among some residents was the stress and anxiety they feel when a helicopter is overhead because they were unsure of whether they were in immediate danger, and it is usually difficult or impossible to determine the reason for a police helicopter's presence. **While they believed that serious crimes may warrant the response of LAPD helicopters, they were generally less supportive of using a helicopter for nonviolent crimes and proactive patrols of higher crime areas.**

Below are several statements from community members expressing concerns about the LAPD's use of helicopters.

"I see a lot of helicopters near my home. My apartment will be shaking at 1am... A lot of my neighbors have to wake up early and have disturbed sleep."

"How do helicopters help with decreasing crime rates? We spend thousands of dollars and don't know what they do."

"Billions of dollars for law enforcement is crazy when we need housing."

"Most people don't even know what the helicopters are doing. You could have a different mindset if you knew what they were actually doing."

"Helicopters just break up house parties."

"I was unaware that [police helicopters] did general patrols. I would like more information on what ASD is actually doing when flying helicopters."

"Drones are electric and there's no environmental waste there."

Listening sessions participants, both supportive and critical of LAPD helicopter use, consistently said that they desired a greater level of information about ASD's flight activities and the related public safety benefits. Participants that were less supportive of LAPD helicopter operations explained that there is a high level of uncertainty about ASD operations in their communities, and that the anxiety and apprehension people feel related to the LAPD's helicopter use could be reduced if more information about ASD operations was shared with the public. Several community members wanted the ability to share feedback and complaints with ASD, and gain real-time information about ongoing incidents.

Listening session participants mentioned certain metrics or reports that they believed would help the community assess the public safety role and benefits of the LAPD helicopter program. Those included:

- the number of individuals that are identified by an LAPD helicopter and apprehended;

- the number of crimes that were prevented by LAPD helicopters;
- cost savings achieved by helicopters resulting from reduced ground patrol units required for incident response; and
- periodic reports summarizing police helicopter activities and the results of those activities.

Given the impact ASD air units have on the communities they patrol, ASD should take steps to promote improved transparency and provide the public with more information about the program. This would foster a greater understanding of ASD operations among members of the public, and help the department better understand the concerns of the community.

Excessive Helicopter Noise Can Have Adverse Health Impacts

The sound produced by helicopters differs from that of fixed-wing aircraft, generating noise that is more variable and unpredictable, which can create more of a nuisance. Even in cases where fixed-wing aircrafts are louder, individuals often report helicopters as more bothersome. According to the National Academy of Sciences, this can be attributed to several factors.²¹ Fixed-wing aircraft usually follow a predictable flight path, and their noise increases and becomes loudest when it is directly overhead. In contrast, helicopters follow less predictable flight paths, fly at lower altitudes, and their noise is directed forward and downward along their route.

These factors can make helicopters audible for longer periods in urban ambient-noise environments, which typically results in a higher level of disruption. Undisturbed sleep is important for overall quality of life, and chronically disturbed sleep is associated with negative health outcomes. Research compiled by the International Civil Aviation Organization (ICAO) shows that while humans can perceive and react to environmental sounds while remaining asleep, meaningful noise events, such as the intermittent noise of a helicopter, are more likely to rouse someone from their sleep.²²

In addition to disrupting sleep cycles, long-term noise exposure to aircraft contributes to adverse health effects, including cognitive impairment, reduced metabolic functioning, and cardiovascular disease.²³ For children and young people, excessive disturbances caused by aircraft noise can even hamper learning and cognitive skills, such as reading and memory, and negatively impact performance on standardized academic tests.

Although some of the harmful impacts of police helicopter noise may be unavoidable, certain actions by helicopter pilots can mitigate nuisance noise. The Helicopter Association International established the Fly Neighborly Program, a voluntary noise reduction program

²¹ The National Academy of Sciences is a private, non-profit society of distinguished scholars that promotes scientific research and provides advice to federal agencies.

²² ICAO is a specialized agency of the United Nations that facilitates the global aviation transportation system, and provides technical, legal, and administrative support to member states.

²³ Metabolic disorders are medical conditions that negatively alter the body's ability to process and distribute macronutrients.

that seeks to create better relationships between communities and helicopter operators by establishing noise mitigation techniques, to provide best practices for mitigating nuisance noise and its negative impacts.²⁴ To meet the generally accepted decibel levels for noise-sensitive areas, **the Fly Neighborly Program recommends medium-sized helicopters fly no lower than 2,000 feet above ground level.**

According to ASD, its helicopters normally conduct patrol activities at approximately 500–700 feet above ground level, lower than Fly Neighborly Program recommendations. The ASD Manual establishes minimum altitude levels of 2,000 feet for certain situations, but those standards typically apply to flight time spent traversing the City, rather than patrol and response activities. Specifically, ASD’s manual states

While transitioning between the Valley and Mid-City, the [pilot] is to fly at a minimum altitude of 2,000 feet mean sea-level. This requirement remains in effect and is for all times during the day or night. For flights other than transitioning and during the hours of 2200 and 0600, officers flying a Department aircraft, not actively assigned or responding to a verified enforcement incident, must fly at an altitude no lower than 800 feet above ground level. (Periodic deviations must not exceed 100 feet.)

Helicopters Create Emissions and Can Impact Air Quality

Similar to any combustion engine vehicle on roadways, helicopters create emissions through their fuel combustion process. Aircraft emissions include carbon dioxide (CO₂), which make up about 70% of exhaust emissions, water vapor (H₂O), nitrogen oxides (NO_x), carbon monoxide (CO), sulfur oxides (SO_x), and volatile organic compounds (VOCs). Aircraft emissions interact with the atmosphere to create pollutants (i.e., greenhouse gases) that trap heat in the atmosphere and contribute to rising global temperatures and climate change. Furthermore, when aircraft pollutants are released below 3,000 feet, those emissions are more likely to negatively impact local air quality. Los Angeles has poor air quality based on concentrations of five major air pollutants regulated by the Clean Air Act: ground-level ozone; particle pollution (also known as particulate matter); carbon monoxide; sulfur dioxide; and nitrogen dioxide.

To better understand the environmental impact of LAPD helicopters, we estimated the annual emissions for LAPD helicopters. The ASD helicopters used for patrol activities (Airbus AS350B3e and Airbus AS350B2) burn approximately 47.6 gallons of fuel per hour. That means that ASD helicopters burn approximately 761,600 gallons of jet fuel per year (based on ASD flying 16,000 hours). Based on the U.S. Energy Information Administration’s carbon dioxide emissions rate for jet fuel, this results in approximately 7,427 metric tons of carbon dioxide equivalent annually, or the equivalent of just over 19 million miles driven by an average gasoline-powered passenger vehicle. The emissions from ASD helicopters highlight the need to reduce negative impacts on the community to the greatest extent possible.

²⁴ The Helicopter Association International is an international trade association representing the helicopter industry that advocates on matters related to safety, community compatibility, innovation, and business interests.

Recommendations

To improve transparency and educate the public on the role and operations of ASD, the division should:

12. Publish a monthly or quarterly report summarizing ASD activities. The report should be made available on the ASD web page.
13. Establish a clear reporting avenue which enables members of the public to submit general feedback, complaints, and recommendations related to the LAPD's helicopters. The reporting avenue, which may include a phone number, email address, web form, or other communications medium, should be made available to the public on the ASD web page.

V. THE LAPD SHOULD IDENTIFY RIGHTSIZING OPPORTUNITIES FOR ITS HELICOPTER PROGRAM

According to a 2007 report by the U.S Department of Justice, approximately 20% of large law enforcement agencies have a specialized aviation unit.²⁵ Given that Los Angeles has the second largest population of any U.S. city, it is unsurprising that its helicopter program is the largest in the country. **However, although further study is necessary, rightsizing opportunities may exist for LAPD air operations.**

The LAPD's Helicopter Program Is Much Larger Than the Programs of Other Municipal Police Departments

We worked with five benchmark police departments with air support programs to examine the size and scope of LAPD helicopter operations relative to peer jurisdictions. We selected cities of varying size and profiles and considered public safety factors such as population, geography, police force size, and crime rates. According to the LAPD, helicopters are an important supplemental patrol force for the department because the City has an insufficient number of police officers given its size and public safety needs.

We compared the LAPD helicopter program to helicopter programs of five cities (Houston, San Diego, Atlanta, Long Beach, and Pasadena).²⁶ The table below describes the population, geographic, and public safety profile of each jurisdiction.

²⁵ The Department of Justice report defined large law police agencies as those with 100 or more sworn officers.

²⁶ The Los Angeles County Sheriff's Department did respond to our request to participate in the benchmarking survey.

Table 11: Overview of Benchmark Cities

City	Population	Land Area (Square Miles)	Violent Crimes (2022)	Violent Crimes/100,000 Residents
Los Angeles	3,822,238	469.5	31,772	831
Houston	2,302,878	640.4	25,987	1,128
San Diego	1,381,162	325.9	5,932	429
Atlanta	499,127	135.3	4,167	835
Long Beach	451,307	50.7	2,455	544
Pasadena ²⁷	134,211	23.0	511	381

Of the five benchmark cities, Los Angeles has the third highest rate of violent crime per 100,000 residents (831 violent crimes), and the second largest land area (469.5 square miles). Houston had the highest violent crime rate (1,128 violent crimes) as well as the largest land area (640.4 square miles). Pasadena had the lowest rate of violent crime (381 violent crimes) and was the smallest municipality we examined in terms of land area (23 square miles), though the Pasadena Police Department provides air support to 10 neighboring jurisdictions.

The LAPD’s air support program is significantly larger than the programs of benchmark jurisdictions. The LAPD’s fleet is the largest of the group with 17 helicopters. Houston has ten helicopters, while Long Beach has the fewest, with two helicopters. LAPD helicopters fly more than three times the number of flight hours as the jurisdiction with the second largest helicopter program (Houston). **The LAPD had the only helicopter program operational (i.e., ASD has helicopters and aircrews ready for deployment) 24 hours per day, and is the only program with two airborne helicopters during patrol shifts.**

Table 12: Helicopter Operations of Benchmarking Cities

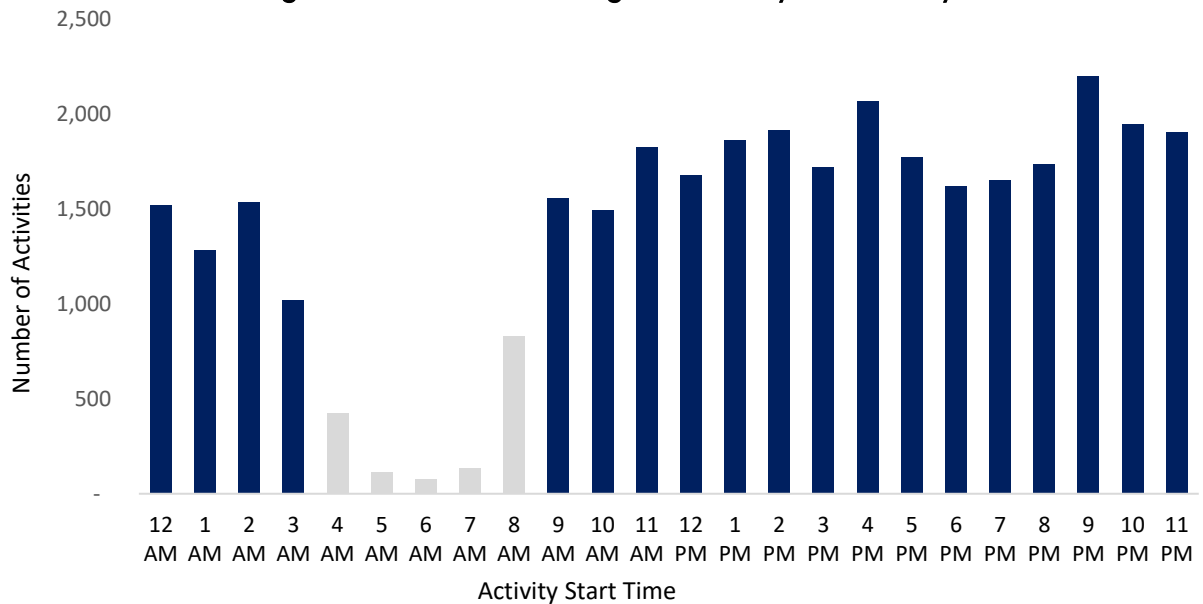
City	Number of Helicopters	Hours Operational Per Day	Helicopters Airborne During Patrol	Flight Hours Per Day
Los Angeles	17	24	2	40
Houston	10	20	1	12
Atlanta	3	16	1	Varies
Long Beach	2	10	1	3-4
Pasadena	5	18	1	5-7
San Diego	4	19.5	1	9

²⁷ Although the City of Pasadena is 23 square miles, Pasadena Police Department Air Operations has an agreement to cover 10 neighboring cities that cover about 175 square miles, with a population of about 894,000.

The gap between the size and scope of the LAPD’s helicopter program and programs of benchmark police departments indicates that rightsizing opportunities may exist, and that the department should examine whether it can meet its air support needs with fewer airborne hours. Currently, ASD flies two helicopters from 8:30 am and 4:30 am. Between 4:30 am and 8:30 am, the division has no helicopters on patrol but has an aircrew on standby if needed. According to ASD, the current downtime hours are set based on crew rest needs. It is not based on any assessment of crime trends, or assessment of the time of day helicopters are most effective.

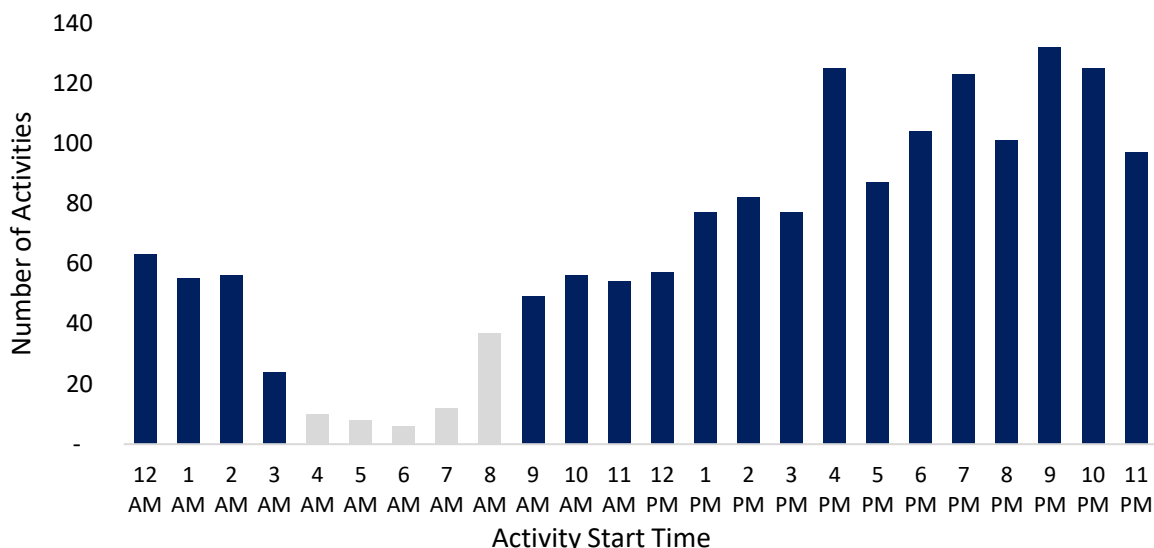
We examined arrest and gun recovery data in ASD’s flight log for the period of FY 2018 through FY 2022 to determine whether opportunities exist to adjust flight times and hours based on periods where the helicopter operations are most likely to be involved in an arrest or the recovery of a gun. We found that ASD helicopters are more likely to engage in activities that involve an arrest during afternoon and evening hours. **Helicopters were less likely to engage in activities involving an arrest between the hours of 12:00 am to 3:00 am, and 9:00 am to 11:00 am.** It is important to note that incidents involving an arrest are low between the hours of 4:00 am and 8:00 am because ASD does not fly regularly during this period.

Figure 9: Activities Involving an Arrest by Time of Day



We observed a sharper trend when it came to ASD helicopter engagements that involved the recovery of a gun. ASD helicopters are much more likely to be involved in an incident involving the recovery of a gun in the late afternoon and evening hours, between 4:00 pm and 11:00 pm. Approximately half as many guns are recovered between the hours of 12:00 am to 3:00 am and 9:00 am to 12:00 pm. Incidents involving the recovery of a gun are low between the hours of 4:00 am and 8:00 am because ASD does not fly regularly during this period.

Figure 10: Activities Involving the Recovery of a Gun by Time of Day



Further analysis is needed to determine whether ASD can continue to meet the operational needs of the department with fewer patrol hours. **However, variations in arrest and gun recovery outcomes during different times of the day, as well as the large size and scope of ASD operations relative to peer cities, indicates that opportunities may exist to reduce the amount of time LAPD helicopters engage in patrols.** The department should consider whether the current levels of aerial support coverage are warranted, and identify cost saving opportunities.

Recommendations

In order to determine whether the helicopter program’s current state and resource allocation is justified, ASD should:

14. Complete a formal assessment of air support needs for patrol and incident response operations to assess the program’s current operations and whether rightsizing opportunities exist. The department should send a report documenting the results of the assessment to the Board of Police Commissioners for consideration. Specifically, the assessment should determine:
 - a. The feasibility of extending the time period, or having more than one time period, where air units are operational and on standby, rather than on patrol.
 - b. The feasibility of reducing the number of air units on aerial patrol to one unit during the time periods where ASD is airborne for patrol.
 - c. Opportunities to adjust ASD air unit schedules based on crime rates during periods of the day, and the time of day that air units have the highest correlation with arrests and firearm recovery.
 - d. The potential cost savings derived from any proposed change to ASD operations or strategies.

CONCLUSION

As the City re-examines its public safety programs and seeks to modernize its public safety strategies, it is important for the City to invest in public safety solutions that are proven to reduce crime, without causing undue harm to the community. The LAPD's helicopter program may play a legitimate public safety role by providing necessary aerial support in certain situations. However, the extent to which the LAPD uses helicopters for patrol and crime response has not been fully justified by the department. Policymakers and the LAPD should determine whether the City's police helicopter program should continue to operate with its current size and operational scope, and seek solutions that minimize the negative impacts of police helicopters on the community and the environment moving forward.

Recommendation Table

Number	Recommendation
<i>Responsible Entity: LAPD</i>	
1	<p>Update Daily Flight Log data entry fields to capture the following:</p> <ul style="list-style-type: none"> a. Responses to Part I crimes; b. Directed patrols; and c. The LAPD area in which an activity takes place, regardless of the flight type or its purpose.
2	<p>Establish a formal set of performance metrics and performance goals that are routinely gathered, assessed, and made public so that residents, policymakers, the Board of Police Commissioners, LAPD management, and ASD can monitor performance on a regular basis. The performance metrics and performance goals should, at a minimum report on:</p> <ul style="list-style-type: none"> a. The impact of LAPD helicopters on arrests (i.e., when the aircrew is responsible for locating the individual or individuals apprehended); b. The impact of LAPD helicopters on the recovery of firearms (i.e., when the aircrew is responsible for locating the armed individual or firearm); c. The number of and time spent on directed patrols; d. the number of activities associated with and the time spent on responding to Part I crimes; e. The number of activities associated with and the time spent on responding to incidents other than Part I crimes; f. The number of activities associated with and time spent on activities other than incident response; and g. The number of activities associated with and time spent in each of the LAPD areas.
3	<p>Transmit for review to the Board of Police Commissioners, at least annually, a report detailing the activities and impact of ASD operations. The report should include performance data and performance goals described in Recommendation 2.</p>
4	<p>Update the ASD Manual to establish policies for the planning and use of directed patrols. The policy should include guidance on criminal activity types and trends that warrant directed patrols, and consider the frequency of directed patrols based on geographic area to ensure communities are not subject to excessive or unnecessary helicopter patrols.</p>

Number	Recommendation
5	<p>Update the ASD Manual to revise its policy for fly-by engagements. Specifically, the policy update should:</p> <ol style="list-style-type: none"> a. Limit fly-by engagements to official LAPD events and acknowledgments for public safety professionals killed in the line of duty; b. Describe the specific events and operational circumstances for which fly-by engagements may be authorized; c. Describe limits on the amount of time an aircraft may be diverted from patrol duties in order to conduct a fly-by; and d. Establish a formal, documented pre-approval process for the authorization of fly-by activities.
6	<p>Establish an activity field for fly-by engagements in the Daily Flight Log in order to improve the department's ability to track fly-by engagements.</p>
7	<p>Update the ASD Manual to revise its policy for administrative flights (i.e., transportation flights). Specifically, the policy update should:</p> <ol style="list-style-type: none"> a. Limit administrative flights to the transportation of law enforcement personnel responding to major incidents and other critical public safety missions; b. Describe the specific events and operational circumstances for which administrative flights may be authorized; and c. Establish a formal, documented pre-approval process for the authorization of transportation flights. This process may exclude the transportation of ASD personnel for operational purposes.
8	<p>Update Daily Flight Log fields to clearly delineate between transportation flights related to maintenance, the transportation of ASD personnel for operational purposes, and the transportation of law enforcement personnel for public safety purposes.</p>
9	<p>Update the ASD Manual to expand guidance on Daily Flight Log data entry requirements and standardization. Manual updates should include clear definitions for data fields (activity, area, etc.), and minimum requirements for free-form comment fields.</p>
10	<p>Coordinate with the Daily Flight Log system provider to develop data validation controls to prevent erroneous entries (e.g., flight or activity end times that precede the entered start time).</p>

Number	Recommendation
11	Develop a formal, legally enforceable agreement governing the relationship between the LAPD and the provider of the Daily Flight Log system. The agreement should clarify the LAPD's ownership of data entered into the system, and ensure the vendor's management of LAPD data complies with the City and LAPD data use and security policies.
12	Publish a monthly or quarterly report summarizing ASD activities. The report should be made available on the ASD web page.
13	Establish a clear reporting avenue which enables members of the public to submit general feedback, complaints, and recommendations related to the LAPD's helicopters. The reporting avenue, which may include a phone number, email address, web form, or other communications medium, should be made available to the public on the ASD web page.
14	<p>Complete a formal assessment of air support needs for patrol and incident response operations to assess the program's current operations and whether rightsizing opportunities exist. The department should send a report documenting the results of the assessment to the Board of Police Commissioners for consideration. Specifically, the assessment should determine:</p> <ol style="list-style-type: none"> a. The feasibility of extending the time period, or having more than one time period, where air units are operational and on standby, rather than on patrol. b. The feasibility of reducing the number of air units on aerial patrol to one unit during the time periods where ASD is airborne for patrol. c. Opportunities to adjust ASD air unit schedules based on crime rates during periods of the day, and the time of day that air units have the highest correlation with arrests and firearm recovery. d. The potential cost savings derived from any proposed change to ASD operations or strategies.

LOS ANGELES POLICE DEPARTMENT



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KAREN BASS
Mayor

December 1, 2023

Mr. Kenneth Mejia
Los Angeles City Controller
200 N. Main Street, Suite 300
Los Angeles, CA 90012
Kenneth.mejia@lacity.org

Dear Controller Mejia,

We appreciate the time, effort, and resources spent by your office on the Air Support Division (ASD) audit. As you know, we welcome collaboration and support all efforts that increase transparency of the Los Angeles Police Department (LAPD) operations for the public.

Our initial review of your audit, in some portions, was restricted by our own data limitations in the Flight Logs; a point accurately referenced in your audit. As we have discussed with your team, we were unable to confirm or validate many of the numbers your audit provided. In the interest of transparency, we asked for the raw data you used to formulate your conclusions and recommendations. For the purposes of this letter, and without the ability to look at the raw data used in your audit, we assume that the numbers contained in your audit are generally correct unless otherwise mentioned.

While it is not clear to us at this time how the \$2,916 per hour cost was established, since we have not received the itemized list of expenses included in each of the categories contributing to the estimated cost to operate LAPD helicopters. The value of ASD operations is not merely a sum of the incidents contained in the flight logs. It is much more complex, and the rudimentary analysis performed in the audit demonstrates a lack of understanding of the complexities.

Additionally, before addressing the recommendations, we would like to highlight facts that were not discussed in the auditing process. The operations of ASD are not solely for the LAPD for several reasons.

First, the City Emergency Operations Plan, Continuity of Operations Plan, and Continuity of Government Plan are not discussed. Therefore, the hourly rate determined is an overstatement throughout the audit.

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www.LAPDOnline.org
www.joinLAPD.com

Second, it does not appear that Federal grants and Federal investments were considered in the audit. The acceptance of such Federal investments requires current capabilities to be maintained and available for regional multi-hazard responses in support of multiple agencies and disciplines.

Third, Air Support Division's helicopters provide an immeasurable benefit to the public with its 20-hour per day flight time. Their availability to immediately respond to spontaneous critical incidents, whether it be a crime against a person or property, discourages those from committing, or continuing, illegal activity. Any limit of ASD's deployment would jeopardize the LAPD Mission to safeguard life and property.

Last, and perhaps most importantly, ASD helps save lives. The work of the Tactical Flight Officers and Command Pilots have prevented officer involved shootings by gaining an aerial perspective to lead officers on the ground to better avenues of approach directly leading to safer outcomes for the community and officers. In addition, ASD support during vehicle pursuits leads to fewer collisions and safer driving by officers on the ground. This is another difficult item to quantify, but undoubtedly the use of helicopters saves the City money by preventing incidents that could lead to large lawsuits and payouts. Failing to acknowledge this in the audit falls short in articulating the impact ASD has on outcomes of major incidents and the value of preventing City liability or saving a life.

With this information in mind, we hope you will consider revising your audit to address these considerations. Additionally, attached is a list of specific technical notes and questions that your office may want to consider when revising the audit.

We acknowledge your recommendations and while we do not agree with all of them, we will briefly address them below and more in-depth when we receive the data we requested.

Our review identified several recommendations that are worthy of consideration for implementation. These recommendations deal specifically with the contents of the current Daily Flight Log (Recommendation Nos. 1, 6, 8 and 9). The current documentation categories are likely worthy of review and updating to capture a more comprehensive data set of ASD activities. Air Support Division personnel previously identified this shortfall and explored options for improvement, to include consultation with the City's Information Technology Agency who redesigned the Los Angeles Fire Department's flight data capture system. Lack of funding prevented the implementation of these improvements. Hopefully, your audit will bring this matter to the forefront so funding can be obtained, and a new system can be created. This would also alleviate the concerns mentioned in Recommendation Nos. 10 and 11.

For Recommendation No. 11, we disagree with the audit's categorization of the procurement of the Flight Log System and the implication that there are data security concerns. This software was an "add on" to the technology purchase of the mapping system included with the purchase of the helicopters. Every facet of the purchase and acquisition of the helicopters and all related technology were subject to review by the City Attorney prior to entering into the purchase agreement. The data captured by the system is limited to information that would be releasable under a California Public Records Act request and therefore no security concerns are warranted.

Kenneth Mejia, Los Angeles City Controller

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For Recommendation Nos. 2 and 3, we have a sufficient set of performance metrics in place and can provide those to the Board of Police Commissioners (BOPC), the governing body of the LAPD, as often as they choose. Air Support Division regularly provides, upon request, written and verbal reports to both the BOPC and the City Council. These metrics include arrests, gun recoveries, and first at scene numbers.

Recommendation Nos. 4, 5, and 7, ask us to revise the ASD Manual to provide more guidance on directed patrols and formal procedures for fly-by engagements and administrative flights. We believe the request and approval process currently in place for these activities is sufficient. We will work with the BOPC to address the concerns embodied in Recommendation No. 12, which appear to be additional public reporting. We believe the BOPC is in the best position to identify the type and frequency of the reporting. Nevertheless, we understand increasing the visibility of ASD operations on our public facing website could help gain greater support for ASD by educating the public on how ASD supports public safety.

Recommendation No. 13 is already in place. The ASD phone number appears on our website and any member of the public can submit feedback, complaints, or recommendations by calling that number. Additionally, members of the public can submit complaints directly to the ASD Commanding Officer via the Department website (LAPDonline.org), by calling the Internal Affairs Division hotline, or addressing their complaints to the BOPC.

As for Recommendation No. 14, the Department Core Value of Quality through Continuous Improvement means we are continually assessing Department divisions, including ASD, and we regularly present our assessments to the BOPC. The audit states that we have not changed ASD operations since the 1970s. This is factually incorrect. We are available to discuss in specific detail those changes upon request.

If you have any questions or concerns, please contact Assistant Chief Blake Chow, Office of Special Operations, at (213) 486-8440.

Respectfully,



MICHEL R. MOORE
Chief of Police

COMMENTS ON THE RESPONSE FROM LAPD

To provide clarity and perspective, we are commenting on the LAPD's written response to our audit.

LAPD Response Comment #1

Our initial review of your audit, in some portions, was restricted by our own data limitations in the Flight Logs; a point accurately referenced in your audit. As we have discussed with your team, we were unable to confirm or validate many of the numbers your audit provided. In the interest of transparency, we asked for the raw data you used to formulate your conclusions and recommendations. For the purposes of this letter, and without the ability to look at the raw data used in your audit, we assume that the numbers contained in your audit are generally correct unless otherwise mentioned.

Audit Team Response

Our Office transmitted the draft report to LAPD on 11/13/2023. On 11/15/2023, we held a formal exit briefing with the LAPD to provide an overview of the report and solicit feedback. During this meeting, LAPD staff/officials did not ask any substantive questions or provide any relevant feedback. Instead, they requested the datasets and source information that the Audit Services Division relied upon to develop its findings and recommendations. It is generally not the standard procedure of the Audit Services Division to provide internal analytical records or audit evidence to the audited entity, particularly prior to completion of our internal quality review process.

Between 11/15/2023 and 12/1/2023 (when the LAPD provided its written response), the LAPD declined multiple offers by the Audit Services Division to meet and discuss the contents of the report, and provide detailed walkthroughs of auditors' analysis. The LAPD stated that such meetings would only take place if the department received the audit data and source information described above. Without engagement from the audited department during the draft report review process, it was difficult to consider the perspectives of the department, or address concerns related to information presented in the audit.

LAPD Response Comment #2

While it is not clear to us at this time how the \$2,916 per hour cost was established, since we have not received the itemized list of expenses included in each of the categories contributing to the estimated cost to operate LAPD helicopters. The value of ASD operations is not merely a sum of the incidents contained in the flight logs. It is much more complex, and the rudimentary analysis performed in the audit demonstrates a lack of understanding of the complexities.

Audit Team Response

Consistent with past cost estimates prepared by our Office, this audit estimated the cost of LAPD Air Support Division operations based on (1) labor costs, (2) indirect costs, (3) procurement costs, (4) fuel costs, and (5) helicopter acquisition/financing costs. The estimated indirect costs are based on Cost Allocation Plan rates developed by the Controller's Office with assistance from City departments. The Cost Allocation Plan is audited by the federal government. During the review, we advised the LAPD, GSD, and ITA of our methodology for developing the cost estimate. We also shared our query of LAPD Air Support Division payroll data with the LAPD to confirm the sufficiency of the query methodology.

LAPD Response Comment #3

First, the City Emergency Operations Plan, Continuity of Operations Plan, and Continuity of Government Plan are not discussed. Therefore, the hourly rate determined is an overstatement throughout the audit.

Second, it does not appear that Federal grants and Federal investments were considered in the audit. The acceptance of such Federal investments requires current capabilities to be maintained and available for regional multi-hazard responses in support of multiple agencies and disciplines.

Audit Team Response

No conclusions or recommendations in this audit report are intended to limit the LAPD's ability to comply with federal or state laws, regulations, or grant requirements, and the audit report does not make any recommendation for the department to eliminate its policy to maintain operational readiness 24-hours a day.

LAPD Response Comment #4

Last, and perhaps most importantly, ASD helps save lives. The work of the Tactical Flight Officers and Command Pilots have prevented officer involved shootings by gaining an aerial perspective to lead officers on the ground to better avenues of approach directly leading to safer outcomes for the community and officers. In addition, ASD support during vehicle pursuits leads to fewer collisions and safer driving by officers on the ground. This is another difficult item to quantify, but undoubtedly the use of helicopters saves the City money by preventing incidents that could lead to large lawsuits and payouts. Failing to acknowledge this in the audit falls short in articulating the impact ASD has on outcomes of major incidents and the value of preventing City liability or saving a life.

Audit Team Response

Based on the comment in this letter, we noted LAPD claims regarding potential benefits related to vehicle collision avoidance, and potential cost savings associated with the avoidance of incidents that could lead to lawsuits.

LAPD Response Comment #5

For Recommendation No. 11, we disagree with the audit’s categorization of the procurement of the Flight Log System and the implication that there are data security concerns. This software was an “add on” to the technology purchase of the mapping system included with the purchase of the helicopters. Every facet of the purchase and acquisition of the helicopters and all related technology were subject to review by the City Attorney prior to entering into the purchase agreement. The data captured by the system is limited to information that would be releasable under a California Public Records Act request and therefore no security concerns are warranted.

Audit Team Response

According to representatives from the Daily Flight Log System vendor, the development of the system was not completed as part of the City’s contract with the helicopter manufacturer. While the LAPD may have a relationship with the Daily Flight Log System developer as part of the City’s contract with the helicopter manufacturer, best practices call for a formal enforceable agreement for the development of an information system housing City data. Moreover, departments should ensure the security and integrity of City data regardless of whether some or all of that data is releasable under the California Public Records Act.

LAPD Response Comment #6

For Recommendation Nos. 2 and 3, we have a sufficient set of performance metrics in place and can provide those to the Board of Police Commissioners (BOPC), the governing body of the LAPD, as often as they choose. Air Support Division regularly provides, upon request, written and verbal reports to both the BOPC and the City Council. These metrics include arrests, gun recoveries, and first at scene numbers.

Audit Team Response

The audit report acknowledges that some metrics, such as counts of arrests, gun recoveries, and the rate at which helicopters are first at scene, are already in place and can be reported by the Air Support Division. However, we believe the additional metrics recommended in the report will improve the ability of the Board of Police Commissioners, policymakers, and most importantly, the community, to assess the performance of the division, the public safety impact, and potential impacts on the community.

LAPD Response Comment #7

Recommendation Nos. 4, 5, and 7, ask us to revise the ASD Manual to provide more guidance on directed patrols and formal procedures for fly-by engagements and administrative flights. We believe the request and approval process currently in place for these activities is sufficient. We will work with the BOPC to address the concerns embodied in Recommendation No. 12, which appear to be additional public reporting. We believe the BOPC is in the best position to identify the type and frequency of the reporting. Nevertheless, we understand increasing the visibility of ASD operations on our public facing website could help gain greater support for ASD by educating the public on how ASD supports public safety.

Audit Team Response

While the ASD Manual does contain guidelines regarding the approval of fly-by engagements and administrative flights, additional guidelines describing the circumstances in which the use of helicopter assets are permitted for activities not directly associated with public safety incidents are warranted.

LAPD Response Comment #8

Recommendation No. 13 is already in place. The ASD phone number appears on our website and any member of the public can submit feedback, complaints, or recommendations by calling that number. Additionally, members of the public can submit complaints directly to the ASD Commanding Officer via the Department website (LAPDonline.org), by calling the Internal Affairs Division hotline, or addressing their complaints to the BOPC.

Audit Team Response

Although the Air Support Division website lists a phone number for the division, it contains no information related to avenues for submitting complaints or feedback should members of the public have concerns about LAPD helicopters.

LAPD Response Comment #9

As for Recommendation No. 14, the Department Core Value of Quality through Continuous Improvement means we are continually assessing Department divisions, including ASD, and we regularly present our assessments to the BOPC. The audit states that we have not changed ASD operations since the 1970s. This is factually incorrect. We are available to discuss in specific detail those changes upon request.

Audit Team Response

We made a revision to the draft report to clarify that the audit did not find that the program has not changed since the 1970s. The draft report provided to the LAPD stated that the division has remained largely unchanged based on the size of the fleet.

APPENDIX A – ASD OPERATIONS COST ESTIMATE

LAPD LABOR SWORN	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022
Gross Pay (Pay and Compensated Time Off)	\$11,211,938.12	\$10,946,128.13	\$12,807,085.98	\$12,116,558.46	\$11,681,559.45
Indirect Costs (Overhead) (Fringe Benefits, Central Services, and Admin Support)	\$18,371,881.80	\$18,601,850.15	\$19,503,911.24	\$19,483,426.01	\$17,625,136.90
Overtime	\$1,359,746.26	\$1,345,034.55	\$1,352,711.20	\$704,349.46	\$1,104,933.26
Total	\$30,943,566.18	\$30,893,012.83	\$33,663,708.42	\$32,304,333.94	\$30,411,629.61

LAPD LABOR CIVILIAN	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022
Gross Pay (Pay and Compensated Time Off)	\$653,406.58	\$648,226.44	\$666,668.81	\$525,200.25	\$323,613.97
Indirect Costs (Overhead) (Fringe Benefits, Central Services, and Admin Support)	\$1,158,097.82	\$1,177,568.16	\$908,802.92	\$723,358.31	\$303,258.65
Overtime	\$52.45	\$2,383.65	\$260.94	\$22.52	\$2,947.46
Total	\$1,811,556.85	\$1,828,178.25	\$1,575,732.67	\$1,248,581.08	\$629,820.08

LAPD CONTRACTS (Maintenance)	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022
	\$ -	\$ -	\$2,717.20	\$2,600.00	\$3,200.00

GSD LABOR (Maintenance)	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022
Gross Pay (Pay and Compensated Time Off)	\$2,405,728.59	\$2,450,317.57	\$2,306,887.18	\$2,191,728.50	\$2,313,021.01
Indirect Costs (Overhead) (Fringe Benefits, Central Services, and Admin Support)	\$2,304,687.99	\$2,405,721.79	\$2,338,491.54	\$2,123,346.57	\$2,316,259.24
Overtime	\$58,346.00	\$48,781.00	\$91,752.00	\$60,748.00	\$54,780.00
Total	\$4,768,762.59	\$4,904,820.36	\$4,737,130.72	\$4,375,823.07	\$4,684,060.25

GSD PARTS MATERIALS (Maintenance)	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022
	\$3,238,163.00	\$3,430,088.00	\$4,026,081.00	\$4,269,712.00	\$5,002,103.00

ITA LABOR (Maintenance)	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022
Gross Pay (Pay and Compensated Time Off)	\$135,142.13	\$93,321.66	\$158,167.27	\$177,851.96	\$214,384.52
Indirect Costs (Overhead) (Fringe Benefits, Central Services, and Admin Support)	\$124,776.73	\$98,799.65	\$336,089.62	\$402,621.26	\$475,526.30
Overtime	\$14.81	\$2,184.40	\$5,155.05	\$1,291.95	\$1,173.06
Total	\$259,933.66	\$194,305.71	\$499,411.94	\$581,765.16	\$691,083.89

ITA PARTS MATERIALS (Maintenance)	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022
	\$86,791.36	\$61,959.69	\$141,437.37	\$268,445.67	\$41,422.90

FUEL	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022
	\$1,815,146.67	\$2,028,394.67	\$1,592,378.67	\$1,391,189.33	\$2,509,472.00

HELICOPTER FINANCING (MICLA)	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022
	\$1,628,437.99	\$1,772,284.00	\$1,937,718.08	\$2,496,974.82	\$4,490,059.60

Total	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022
	\$44,552,358.29	\$45,113,043.51	\$48,176,316.05	\$46,939,425.07	\$48,462,851.33

APPENDIX B – ASD DAILY FLIGHT LOG ACTIVITY TYPES

Burglary/Theft from Motor Vehicle
Burglary
Community Event
Extradition
Felony Person – Other
Felony Property – Other
Grand Theft Auto
Homeland Security
Homeland Security/Surveillance
Misdemeanor Person – Other
Misdemeanor Property – Other
Missing Person
Narcotics
Other
Other City Dept Use/Transportation
Pedestrian Stop
Perimeter Relief
Photo
Prisoner Pick Up
Robbery
Roof Checks
Suicide
Surveillance
Traffic Stop
Training
Transportation
VIP Escort

AUDIT SERVICES DIVISION

The Office of the Controller was created by the Los Angeles City Charter as an independent office, and is headed by the Controller: the elected auditor, paymaster, and chief accounting officer for the City of Los Angeles. Under the Controller’s leadership, the Office’s Audit Services Division performs audits, investigations, and other oversight functions to help provide transparency, accountability, and improve City services for all Angelenos.

AUDIT TEAM

Michael Bauer, Staff Auditor
Andrea Lynn, Senior Auditor
Nicholas Ketter, Audit Manager
Devang Panchal, Director of Auditing

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