



Memorandum

TO: HONORABLE MAYOR
AND CITY COUNCIL

FROM: Edgardo Garcia

SUBJECT: POLICE HELICOPTER
REPLACEMENT PLAN

DATE: September 7, 2017

Approved

D. DSYL

Date

9/7/17

INFORMATION

The Police Department's Air Support Unit (ASU) currently operates an Airbus EC-120B helicopter (Air2). The mission of Air2 is primarily to support the Bureau of Field Operations, Field Patrol Division. The helicopter assists units on the ground for a variety of situations, which include supporting patrol officers on routine calls for service, responding to priority events such as vehicle pursuits, and searching for armed suspects and missing persons. Air2 also provides a visible and psychological deterrent to law violators while it patrols the City through the air. Air2 is a critical asset for specialized units working special events or conducting reconnaissance during tactical operations. The helicopter is also a critical tool during catastrophic incidents or other large-scale operations where aerial views provide enhanced situational awareness for personnel managing the events.

During its 16-year deployment, Air2 has logged significant flight hours. The helicopter was purchased in 2000 and according to Airbus, it is the oldest EC-120B in law enforcement in the nation. Typically, a helicopter's useful life span is approximately 10,000 hours or 6 to 8 years based on average flight hours of the aircraft. Air2 has undergone several mechanical overhauls to extend the life of the aircraft, and has roughly 500 flight hours left on the engine before another complete engine overhaul is required. Currently, Air2 logs approximately 1,000 to 1,100 flight hours per year. Based on calculated flight operations, it is estimated that Air2 will reach maximum flight hours in late October 2017. In order to keep the helicopter operational at the current service level, a complete engine overhaul will be required. The funding for the engine overhaul has been previously set aside in asset forfeiture funds; however, as the helicopter continues to age the potential for unanticipated grounding due to maintenance issues increases dramatically. Due to the age of the helicopter and the increased costs associated with maintenance, it is recommended that Air2 be replaced.

Staff has conducted extensive research in the various options for replacing Air2 and the list that follows discusses those options in detail.

The Airbus H125 (formally the Eurocopter AS-350 series) is one of the most commonly operated single engine helicopters in law enforcement and has an exceptional safety record. It is the recommended law enforcement industry standard and is used by the three largest air operation units in California: California Highway Patrol, Los Angeles Police Department, and Los Angeles County Sheriff's Office. The H125 offers upgraded power and lifting capacity and extended flight times. Due to advances in turbine technology, the H125 is able to provide higher power ratings and performance while burning less fuel. The H125 facilitates four passengers, in addition to the pilot and co-pilot, and allows maximum fuel to be onboard, which will sustain longer flight times. Due to its size and restricted power, Air2 can carry only one passenger or (if necessary) two passengers but significant reductions to fuel capacity need to be calculated to adjust for the added weight in the aircraft.

Acquisition of a New Helicopter

Department staff evaluated several options for replacing Air2 including an operating lease, a capital lease, and procuring a helicopter through the Federal Public Safety Procurement Program (1033 Program) as well as a direct purchase. The research conducted revealed that the options of leasing a helicopter (both a capital and an operating lease) would be more expensive than actually purchasing a new helicopter:

- An operating lease with maintenance cost for a 10-year period would be approximately \$1,048,000 annually. While an operating lease would normalize expenses over a 10-year period, the overall cost would exceed \$10 million. At the end of the operating lease, the aircraft would need to be returned to the vendor or a new lease would have to be negotiated or extended.
- A capital lease would provide ownership of the aircraft at the end of the lease; however, the cost of the capital lease and maintenance would still be considerably higher than the purchase of a new helicopter. Staff collected information on estimates for a 6-year, 8-year and 10-year capital lease. The total cost including maintenance is estimated to be \$7.3 million for the 6-year option, \$7.4 million for the 8-year option, and \$7.6 million for a 10-year lease. The costs are significantly higher than the cost to purchase a helicopter.
- The Federal 1033 Program offers surplus equipment to local law enforcement with little or no cost. Aircraft available under the 1033 Program are generally in need of repair and can be expected to require major engine and other component repairs/overhauls as soon as they are acquired. The helicopters available under the 1033 Program include the OH-58 Kiowa and the Bell UH-1 Huey.
 - The Kiowa's are very underpowered (rated slightly less than Air2's horsepower) and have very limited lift ability, which would preclude adding the necessary law enforcement equipment. Most Kiowa models only allow two occupants and no rear seats or rear doors. They are also relatively noisy for their size.
 - The Huey is very large and loud helicopter. While many agencies use these models, they are generally used for special purposes such as search and rescue, firefighting, or tactical team deployments. The hourly cost to operate a Huey would be three to four times what it would cost to operate Air2 or the

Airbus H125. Lastly, the Huey would not be an appropriate helicopter for general patrol work due to its size, noise, operating costs, and additional training costs.

- The purchase of a new helicopter with maintenance included in the price for 10 years would cost approximately \$6.6 million.

After reviewing the acquisition options, the department is recommending the purchase of a new helicopter.

Cost Implications

The projected cost to purchase a new helicopter is approximately \$4.7 million. The price includes the helicopter and the associated avionics and necessary law enforcement equipment. There is approximately \$3.13 million in funds currently available to support the cost of a replacement helicopter, which leaves a funding gap of approximately \$1.59 million.

The table below identifies helicopter and equipment costs as well as current funding availability:

Helicopter One-Time Costs based on 5/5/2017 estimate:	
Aircraft base price (to include basic avionics package and air conditioning)	\$3,277,533
Police radio and other police equipment	\$117,816
Infrared system, mapping, searchlight, and video downlink system	\$826,649
Airframe equipment, avionics systems, and other required equipment	\$450,871
Total Equipment Cost	\$4,672,869
First Year Inspections/Maintenance Costs	\$50,000
Total Cost Year 1	\$4,722,869

Available Funds as of 6/30/2017:	
Federal Asset Forfeiture	\$2,457,966
Pending Federal Asset Forfeiture	\$63,907
State Asset Forfeiture (includes funding for engine overhaul of Air2)	\$367,630
Gift Trust - Investigative Enhancements	\$37,789
General Fund – Helicopter Maintenance Allocation	\$200,000
Total Funding Available	\$3,127,292
Projected Funding Gap	\$1,595,577

The Police Department is working closely with the City Manager’s Budget Office to identify a funding strategy for the \$1.59 million gap with recommended appropriation actions expected to be brought forward as part of the 2016-2017 Annual Report, which will be released on September 29, 2017 and considered by the City Council on October 17, 2017. Both the Police

Department and City Manager's Budget Office are working diligently on this project as Air2 is expected to reach its maximum flight hours in October 2017. The purchase and manufacturing of a new helicopter will take approximately six to eight months after the issuance of a purchase order. Thus, it is imperative to begin the procurement process early in order to take possession of the new helicopter and to place it in to service in a timely manner. The Police Department is also working with the Finance Department to review procurement options in an effort to be as efficient as possible in the purchasing process.

Air2 Unavailability

Based on current operations, Air2 is expected to reach its maximum flight hours in October 2017. However, the Police Department is implementing a reduced, modified flight schedule through mid-calendar 2018, to allow Air2 to remain operational until the new helicopter is commissioned. During this modified period, the City also anticipates having limited accessibility of helicopter support from the California Highway Patrol (CHP) and the Santa Clara County Sheriff's Office (Star1). Star1's flight schedule is generally Thursday, Friday and Saturday nights from 1600-0200 hours. Star1 will respond to calls for service in San José during normal operating hours, but will also provide assistance throughout the County, which could limit its availability to assist the Police Department when needed. Additionally, the City can expect the Sheriff's Department and CHP helicopters will be available to assist with major incidents or investigations, if it requests them and it is feasible for them to respond.

Future Helicopter Program Plans

The long-term plans for the ASU helicopter program include establishing a sinking fund for the replacement of future aircraft through various funding sources, such as proceeds from the sale of Air2, with a projected value ranging from \$75,000 to \$100,000. A new helicopter should be purchased every 6,000 to 7,000 hours per industry standards, which for San José's program would be approximately every 6 to 8 years. The Administration may bring forward recommendations for the creation of a reserve fund to purchase another helicopter in addition to Air3 and begin setting aside those funds as soon as possible so that a second helicopter can be added to the fleet within the next five years, in the context of other Police Department and City-Wide priorities as fiscal conditions allow.

/s/
EDGARDO GARCIA
Chief of Police

For questions, please contact Police Captain Loyd Kinsworthy, San José Police Department, at (408) 537-1891.