

Competition or Collaboration
Orange County's Public Agency Helicopters



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SUMMARY

There have been numerous incidents in the recent past in which air support units from the Sheriff’s Department and Fire Authority have responded to the same Search and Rescue (SAR) events with multiple helicopters. This duplication of effort poses potential safety risks, as both agencies often act independently and without coordination to execute SARs. Moreover, the Orange County Sheriff’s Department (OCSD) and the Orange County Fire Authority (OCFA) do not consistently adhere to uniform communications and safety protocols when interacting during these SARs. Aircraft operating in close proximity, often without proper communications, pose a major safety risk. Safety and other concerns become magnified when multiple county and city agency helicopters operate in the narrow altitude corridor between 600 and 1200 feet. Public safety demands that this situation - competition versus collaboration - be immediately rectified.

After conducting an investigation into this matter, the Grand Jury recommends that:

1. Under the direction of the Board of Supervisors, the County should consider forming an ongoing regional council in collaboration with all city and county public agency air units, such as an Orange County air operations safety council, tasked with addressing these issues.
2. OCSD and OCFA move forward with implementing the Board of Supervisors’ resolution identifying OCSD as the lead agency for wilderness, remote/off-road Search and Rescue.
3. OCSD evaluate the potential cost and operational benefits of relocating its Air Unit to the OCFA Air Support facilities at Fullerton Airport, where the county’s public agency aviation units can leverage each other’s resources, reduce operating costs and forge improved collaborative working relationships.
4. OCFA, in collaboration with the OCSD, should identify and implement methods for its paramedics to operate jointly with the OCSD Air Support Unit to the maximum extent practical. (OCFA paramedics often have greater and more current experience.)

5. Ultimately, the county’s public agency aviation units should evaluate the potential benefits of centralizing into one aviation support organization led by an experienced aviator-manager, in order to maximize safety and effectiveness and reduce unnecessary costs.

REASON FOR THE STUDY

Over the past two years there have been numerous incidents of both OCFA and OCSD responding to SAR events with helicopter units that have, to varying degrees, interfered with each other. Some of these incidents resulted in allegations that the aircraft operated too closely to one another without using proper communications, at times impairing safe operations. This lack of coordination and communication has fostered negative media attention, has been the subject of Board of Supervisor (BOS) meetings, and has generated public concern.

Subsequently, the BOS passed a resolution that, in accordance with the California Office of Emergency Services model, the OCSD shall be the lead agency for remote/wild-lands SAR, with OCFA remaining as lead agency for urban SAR. Despite this action and a long process of mediation, at times both OCFA and OCSD continue to jockey and compete for to remote/off-road SAR activities creating the potential for dangerous consequences. Consistent with its role as the County’s civil watchdog, the Grand Jury determined that these conditions should be investigated.

METHOD OF STUDY

The Grand Jury conducted over twenty-five interviews with personnel at OCFA, OCSD, the Air Units of Anaheim and Huntington Beach Police Departments, and the local California Highway Patrol (CHP). Interviews with the five agencies included current and former key personnel. Dozens of incident reports and inter-agency complaints, and many hours of video and audio tapes were reviewed. Six different air support facilities were visited. The Grand Jury reviewed

local news coverage and online commentaries regarding helicopter SAR events in Orange County. In addition, the Grand Jury visited and interviewed San Diego County’s air support unit, interviewed San Bernardino County Aviation Division, and also reviewed CAL FIRE documentation.

The Grand Jury examined OCFA and OCSD Air Support Units’ pertinent operational, financial, and other documents. The Grand Jury reviewed applicable Federal Aviation Administration (FAA) regulations and California State Office of Emergency Services (Cal OES) documents. Members of the Grand Jury also participated in various air support unit missions as observers.

BACKGROUND AND FACTS

Orange County has four public agency aviation units. These air support units reside within the Orange County Fire Authority (OCFA), the Orange County Sheriff’s Department (OCSD), the Anaheim Police Department, and the Huntington Beach Police Department. Collectively, these four agencies operate fifteen helicopters and one fixed wing airplane, providing aerial law enforcement, rescue, and firefighting services. In addition, a regional CHP Air Unit with three helicopters is based in Orange County. This report focuses primarily on the OCSD and OCFA air support units and their operations involving remote/off-road SAR.

OCFA has operated air support units since its formation in 1995. The four-helicopter OCFA unit is based at Fullerton Airport in a large, well-kept hangar complex with extensive aircraft maintenance facilities. They have a wide spectrum of equipment for specialized rescues. The OCFA Fullerton Airport complex also includes a helicopter rescue training simulator with a tower structure, helicopter shell, and hoist to practice lowering and retrieving personnel. OCFA owns the hangar and office building complex, leasing out a large hangar area to private entities.

The OCSD has operated air support units since 1985. The five well-equipped helicopters are currently based in a leased hangar facility at John Wayne Airport. The OCSD Air Support Unit is located in a modest hangar and office complex with maintenance equipment and conference and

ready rooms. The OCSD facility is adequate, although not as well-equipped as OCFA’s Fullerton hangar to support as wide a range of specialized rescues.

While any of the public agencies operating helicopters in Orange County can provide various types and degrees of assistance to those in need, OCFA and OCSD are the primary agencies that conduct SARs within the County. There are two main types of aerial SARs in Orange County: remote/off-road and urban. Remote/off-road SARs involve locations in wilderness and geographically hard to reach areas, while urban SARs occur in areas accessible by road. An aerial SAR event may consist of just a search or a search and rescue where someone is provided assistance from the helicopter. In 2017, OCFA and OCSD air units altogether responded to over 220 remote/off-road SAR events.

Staffing and Operations

Helicopter operations are limited by weather conditions and the availability of aircraft and qualified crews. Helicopters are maintenance-intensive aircraft; typically, in order to have two aircraft ready for use, at least a third aircraft is needed to allow for routine and emergency maintenance. Pilots are limited by FAA regulations and other rules regarding the amount of flying time per shift and per day, and must be qualified for certain missions.

There are significant differences in the capabilities and operational characteristics of the aircraft operated by each agency. OCFA’s primary aircraft have dual engines with an autopilot feature, making it easier to fly with their one pilot staffing model. OCSD uses single-engine aircraft that do not have the autopilot feature, but which fly with two qualified pilots (one assuming the role of Tactical Flight Officer - TFO) using dual controls.

OCSD Helicopter Operations

OCSD operates five helicopters: two are used mainly for two-person patrols and three are used as rescue and firefighting helicopters, with space for a stretcher and a medic. To staff this fleet, they have 19 qualified pilots composed of both full-time Sheriff’s Deputies and part-time trained and qualified volunteers. In the past several years, OCSD has developed an extensive volunteer/Public Safety Reserve (PSR) program for both pilot and crew to support the increased size and complexity of their air unit. All personnel, including volunteers, complete training through the Sheriff’s academy. The use of these volunteers adds flexibility and lowers labor costs compared to using only full-time employees. With this large pool of pilots and crew, OCSD can routinely support two helicopters in the air or at the ready close to 24 hours a day, seven days a week. One, and often two, OCSD helicopters are patrolling over Orange County at least 16 hours a day, seven days a week. The use of volunteers to supplement air support units is common in many California county law enforcement and fire agencies.

OCSD routinely staffs both a patrol and rescue helicopter. Unlike OCFA units, they are equipped with high resolution magnification and infrared camera capability, which is very useful in a variety of SAR and patrol scenarios. The OCSD rescue aircraft is stationed on the ground, staffed and ready for takeoff, and is normally available from 6:00 a.m. to 8:00 p.m. The OCSD patrol helicopter is usually airborne and, when called for an SAR event, can arrive at the scene very quickly. The patrol crew is trained in basic first aid and, if necessary, can land the helicopter to render assistance to a victim. When an Emergency Medical Technician EMT/Paramedic is on board, more serious injuries can be treated; but if the victim is in an inaccessible spot, a two-person crew cannot lower a rescuer. If a hoist rescue is necessary, the patrol unit moves to a higher altitude, awaiting the OCSD rescue helicopter’s arrival.

OCFA Helicopter Operations

OCFA uses only civilian pilots, who do not go through the fire academy. They have four full-time pilots, and rely upon extensive overtime to meet staffing needs. OCFA is routinely staffed

with one pilot, a crew chief, and a paramedic 24 hours a day, seven days a week. If a second mission is required during a shift, an off-duty pilot must be called in, which may cause a significant delay. OCFA regulations restrict a pilot to seven hours flying time per day.

OCFA response times may be somewhat longer than those of OCSD. Since OCFA does not have a helicopter constantly in the air, the unit response requires starting the helicopter, obtaining air traffic control clearance for takeoff, and proceeding to the vicinity of the SAR event. These steps can be accomplished relatively quickly when the unit is prepped and on-call. When a remote/off-road SAR event occurs, OCFA also dispatches a set of ground units to the nearest road-accessible area in the vicinity as additional support.

Table 1: Comparison of OCSD and OCFA Helicopter Operations

Capability/Asset	OCSD	OCFA
Helicopters	5	4
Full-Time Pilots	9	4
Reserve Pilots	14	0
Minimum daily helicopter staffing	1 Patrol 24 hr. 1 Rescue 6:00am-8:00 pm.	1 on duty 24 hr.
Number of helicopters required for rescue mission	1 or 2	1
Paramedic 24 hour constant staffing	Yes	Yes
Number of medical personnel on rescue helicopter	1 or 2	1 or 2
Search capability w/ high mag & infrared camera	Yes	No
Continuous flight w/o refuel	Patrol 3.5 hrs. Rescue 2.0 hrs.	2.0 hrs.
Twin Engine Helicopters	0	2
Single Engine Helicopters	5	2
Instrument Flight Certified Pilots	15	2
24 Hour Firefighting and Hoist Rescue Operations	Yes	Yes

Source: Data from OCSD and OCFA

Section Summary – Staffing and Operations

OCSD’s larger fleet and crew provide two helicopters, 16 hours per day, with two pilots on board each helicopter (routinely one patrol and one rescue helicopter). The OCFA staffs one helicopter, 24 hours per day, with one pilot on duty.

Helicopter SAR Controversy

A 2010-2011 Grand Jury Report criticized the OCSD for delaying simple rescues because, even after finding the emergency location, its helicopters lacked hoists and could not lower medics or lift victims. As a result, in 2016 OCSD added hoists to some helicopters; now both agencies have the basic equipment to perform all SAR functions. SAR calls are routed to the Orange County Emergency Communications Bureau (ECB), managed by the Sheriff’s Department, or to the closest city dispatch center, depending on event location. Theoretically, whichever agency is closest or has the quickest response time handles the call. OCFA claims that the Sheriff’s Department, the lead agency at the ECB, usually gets the first call rather than the ECB assessing which agency is best situated to support the call.

Since OCFA had previously performed nearly all remote/off-road SARs, OCFA considered such rescues their responsibility. However, once OCSD added hoists and became fully rescue capable, ECB dispatch increasingly assigned remote/off-road SAR calls to OCSD. OCFA air units continued to monitor all calls and respond as well. Since OCSD is already patrolling in the air when the call comes in, its aerial unit usually arrives on the scene first. The OCFA helicopter then arrives, and sometimes an “aerial dance” ensues – at times with a total of three helicopters: the OCFA unit and the OCSD patrol and rescue units.

In 2015, in recognition of the need for flight safety communications and coordination, the public agency air support units within Orange County (including CHP) held several meetings to discuss these common interests. These meetings were held on an ad hoc basis and had no written

minutes or records. Attendance was inconsistent, and the meetings lacked management oversight. A result of these meetings was a Memorandum of Understanding (MOU) entitled Orange County Public Safety Aviation Unit Multi-Aircraft Coordination Guidelines (see Appendix 1). This MOU standardized communications procedures and frequencies with the intent of enhancing flight safety. OCFA was invited to participate, but attended only one meeting and was the only air support unit not to sign the MOU.

OCSO believed that a prior MOU between OCFA and OCSO regarding air support units required modification after OCSO obtained the new rescue hoists. Despite many months of discussions to revise the MOU, the two agencies could not reach an agreement. In 2017, they entered into a formal mediation effort with a retired judge to reach an agreement on conducting SARs in off-road and wilderness areas. These mediation efforts included hiring outside experts. The mediation effort lasted several months, again without resolution.

A general concern arose that OCSO and OCFA helicopters were racing against each other, often without proper communication, and operating in dangerous proximity, thereby jeopardizing flight safety. The BOS, in an effort to end the remote/off road SAR controversy, passed a resolution in August 2017 affirming that OCSO will be the primary responder to off-road/remote SARs. This resolution follows the California Office of Emergency Services model. However, OCFA officials stated they will continue to consider themselves the primary responders to all SARs regardless of the BOS resolution. The Grand Jury believes this situation will lead to future safety issues, higher taxpayer costs, unnecessary conflict, and the potential for liability or litigation.

Compounding the safety issue of this race to the rescue, air-to-air communication has frequently been inconsistent and improper. Individuals knowledgeable in air operations in Orange County have alleged that, on occasion, OCFA failed to respond on established air-to-air radio frequencies. This claim is supported by documented evidence. Other knowledgeable individuals claim that OCSO sometimes fails to properly utilize the OCFA Incident Response System for communications and coordination. This is also supported by documented evidence

When both agencies race to every remote/off-road SAR event, multiple problems occur:

potential air safety issues with multiple helicopters operating in close proximity without proper, consistent communication

potential liability issues for the County of Orange should an accident occur

waste of taxpayer funds sending multiple helicopters to each event

continued and increased inter-agency dysfunction, mistrust, and enmity that is detrimental to the public good

decreased ability to respond to multiple, concurrent SAR events

Section Summary - Helicopter SAR Controversy

The current competition for remote/off-road helicopter search and rescue between the OCSD and the OCFA has created dangerous conditions. Helicopters from the two OC agencies are often approaching the same search and rescue area without agreement regarding communication frequencies or who is the primary responder.

Base Location and Helicopter Density

Figure 1 illustrates the relative positions of the OCSD and OCFA helicopter bases. Since the southern and eastern portions of the county contain the most wilderness areas, remote/off-road SAR events tend to occur in these areas. OCSD usually stations a helicopter at the Emergency Operations Center (EOC) on top of Loma Ridge during the peak hiking season to reduce response times for rescues.

Figure 1: Location of Helicopter Bases for OCFA and the EOC



Source: Adapted from website: <http://naosaf.net/california/california-orange-county-map>

Base location plays a relatively minor role in air unit response time, since the vast majority of the county is within 12 minutes air time by helicopter. Fullerton Airport is the base for the OCFA and several other public agency air units. John Wayne Airport (JWA), the base for OCSD Air Support, is closer to the county center. However, JWA occasionally has fog, so neither JWA nor Fullerton is an ideal helicopter dispatch location for all scenarios.

Far larger counties such as San Diego and San Bernardino use one consolidated aerial support unit base to cover much greater distances than those found in OC.

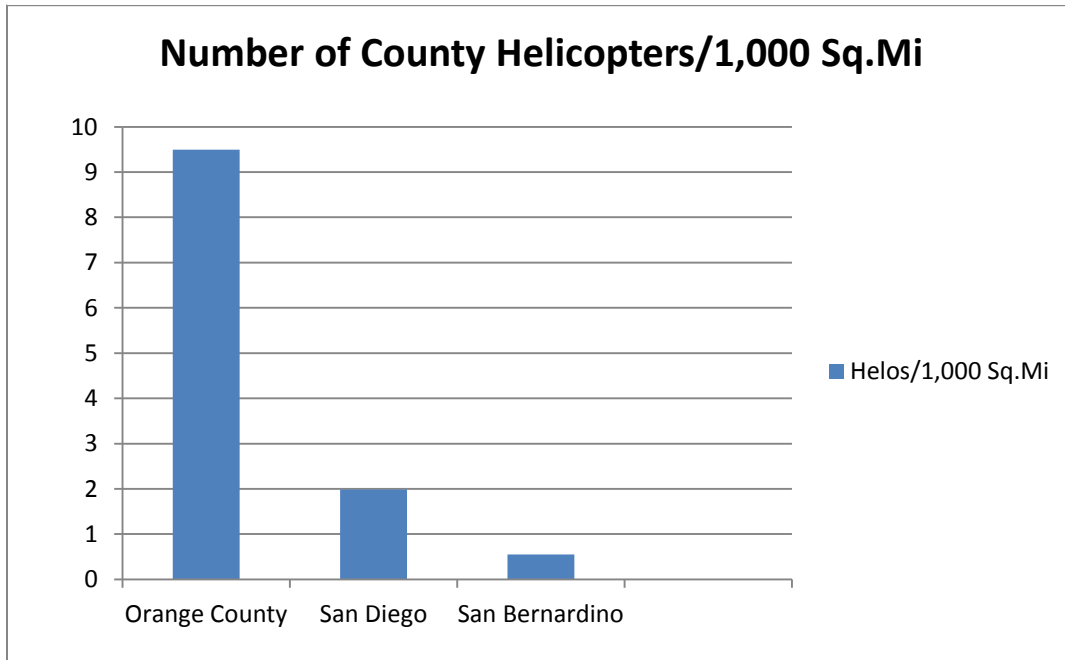
Figure 2: Orange County's land area compared to other Southern California counties



Source: Adapted from website: https://en.wikipedia.org/wiki/Southern_California#/media/File-Southern_California.png

Figure 3 shows the comparison of public agency helicopter density in adjacent counties. Orange County has many more helicopters per square mile than either San Diego or San Bernardino.

Figure 3: Diagram comparing county land areas to number of county helicopter assets



Source: 1Data obtained from various county websites and interviews

Section Summary – Base Location and Helicopter Density

Because of the relatively small size of Orange County, John Wayne Airport’s central county location has only a slight advantage compared to Fullerton Airport as a helicopter base. This advantage is reduced because of the occasional fog at John Wayne Airport. Orange County has more helicopters per square mile than other southern California county.

Helicopter Operations and Costs

Compared to the consolidated air operations in other nearby counties, operating four separate helicopter air units in Orange County is an expensive way of providing aerial services. Each of the four agencies has its own administrative, maintenance, and training programs thus losing opportunity for coordination, synergies, and economies of scale. Altogether, county and city agencies spend approximately \$15.5 million per year operating 15 helicopters and the one fixed

wing plane used by Anaheim Police Department. In addition, significant capital expenditures on new helicopters have been made over recent years. See Table 2 below.

Table 2: Air Support Unit's Operating Expenses (all \$ in millions) Fiscal Year 2016/2017

	<u>OCFA</u>	<u>OCSD</u>	<u>Anaheim PD</u>	<u>HB PD</u>	<u>Total</u>
Amount \$	\$4.28	\$3.55	\$4.41	\$3.25	\$15.50
% of Total	27.6%	22.9%	28.5%	21.0%	100%
# of Aircraft	4	5	4 (including one plane)	3	16
Cost/Aircraft	\$1.07	\$0.71	\$1.10	\$1.08	\$0.97

Source: Multiple OC Agencies

OCFA and OCSD have significantly different hourly operating rates. OCFA’s total operating expenses, including crew, fuel, insurance, etc., is \$3,863 per hour for a single helicopter. Based on data reviewed by the Grand Jury, a one-hour rescue extraction (take off, transit, hover to deliver EMT/Paramedic, prep patient, retrieve, deliver patient, etc.) costs the OCFA well over \$4,000 per SAR event for the air component. Based on similar factors, OCSD’s helicopter operating cost is \$1,154 per hour, or about 30% of the OCFA rate. However, since many OCSD SARs involve a second helicopter, the comparison is closer to 57% of the OCFA costs.

Of the over 400 SAR missions responded to by OCSD and OCFA County helicopters in each of 2016 and 2017, OCSD executed 32 helicopter extractions in 2016 and 34 in 2017. The majority of OCSD’s SAR events involve two helicopters and no ground assets. By comparison, OCFA conducted 39 helicopter extractions in 2016 and 35 in 2017. Although the number of extractions between the two agencies was similar for these remote/off-road SARs, the total associated operating costs for OCFA was considerably greater than for OCSD. Differing flight hours, helicopter types, and OCSD’s extensive reserve/volunteer program account for most of the cost differences.

OCFA does not use volunteers/PSRs for their air support unit, although this practice is common with the Sheriff/Fire consolidated aerial units in other California counties. All of OCFA’s higher-cost medical personnel are certified paramedics, most with extensive experience in both urban

and remote/off-road SAR operations. OCFA paramedics generally have broader medical experience than those with OCSD since OCFA paramedics also handle the vast majority of Orange County’s medical emergency responses on a daily basis.

Although some OCSD medical personnel are lower-cost volunteers, they are certified by Orange County Emergency Medical Services, and consist of paramedics, EMTs, Advanced EMTs, and registered nurses. OCSD medical personnel, including volunteers, are also armed and trained to respond to active shooter scenarios, SWAT operations, and other dangerous situations. This can be significant if there is a potential for criminal activity or crime scene preservation associated with an SAR operation.

Both OCFA and OCSD helicopters have water tanks and CAL FIRE-certified crew members for aerial firefighting. OCFA has more extensive CAL FIRE certifications and greater experience in firefighting, as that is their core mission. OCFA frequently requests OCSD helicopters for helicopter coordination services. In this capacity, the helicopter crew provides airborne observation for fire commanders and coordination of aerial support for OCFA. Aside from this, OCFA does not use the firefighting capability of OCSD. Both San Bernardino and San Diego counties use sheriff’s deputies to pilot the helicopters they provide to other counties for mutual aerial firefighting support. Notably, OCFA might use other counties’ sheriff’s pilots, but will not take advantage of its own OCSD aerial firefighting resources during fire emergencies.

A review of various remote/off-road SAR events indicates that the majority do not require multiple helicopters from both OCSD and OCFA, in addition to OCFA ground units. This overuse of resources wastes taxpayer funds and creates safety and liability issues. Consolidating these air support units would substantially reduce costs while increasing operational efficiencies.

Section Summary- Helicopter Operations and Costs

The smallest county by area in Southern California hosts four separate air support units comprising one of the largest law enforcement and firefighting helicopter fleets. This set of independent helicopter fleets requires substantial operating expense and large capital outlays.

Flight Safety

The Grand Jury reviewed many air safety incidents in written, audio, and video form, and allegations of conflicts involving OCFA and OC law enforcement air units. According to data from the National Transportation Safety Board, one-third of national air safety incidents were associated with poor communications. Many of these involved poor radio technique. Following proper safety communication protocols is critically important. As discussed earlier, all of the air support units operating in the County except for the OCFA agreed to an MOU to improve flight safety and communication. These safety incidents demonstrate why all air support units need to comply.

One possible remedy would be to create an air operations safety council, composed of representatives of all public agency aviation units operating inside the county. These agencies could include OCFA, OCSD, the Cities of Huntington Beach and Anaheim, and the local CHP unit. Meetings could be held quarterly and chaired by a representative under the direction of the BOS. This air safety council would focus on airspace safety and, in particular, establish common communications frequencies; promote adherence to FAA regulations and protocols; and review significant aviation safety incidents and issues. One of the first priorities should be establishing common and mandatory communication protocols to be used by all local agencies while flying in county airspace. Such a forum could help restore safety and cooperation, and assist in rebuilding mutual trust between the affected agencies while a more centralized solution is implemented.

Typically, governmental, commercial aviation, and military organizations have air support units embedded within larger departments with former aviators occupying some middle to senior management positions. An experienced aviator-manager can provide effective and critical feedback on the technical operations of air units. For example, only a qualified naval aviator or naval flight officer may command US Navy aircraft carriers (10 USC 5942). The same requirement applies to commanders of both Naval and Marine Corps air stations. Conversely, OCSD and OCFA have no aviation-experienced leadership above the unit level to provide mentoring and accountability. As a result, in numerous aviation conflicts and incidents, reviews

by the higher-level chain of command seem to mirror the perspectives of their air units regarding interagency controversies without further examination.

The public interest is best served by OCFA and OCSD cooperating and reinforcing each other for the benefit of the county, rather than protecting their own turf.

Section Summary – Flight Safety

The creation of a formal inter-agency body, such as an OC air operations safety council under the direction of the Board of Supervisors, would help drive agreement among all air support units on common communication and safety protocols. This group could also review adherence to FAA regulations, proper airspace management, and review significant aviation safety incidents and allegations.



Figure 4 OCFA helicopter using hoists

Source: [OCFA website](#)

Figure 5: OCSC using hoists



Source: OCSD website

Air Operations/Search and Rescue (SAR)

In August 2017, The Board of Supervisors decided that the OCSD is in a better position to be the lead agency for SARs in Orange County remote/off- road incidents. This is consistent with guidance from Cal OES. Other facts supporting this decision are:

1. OCSD helicopters usually arrive on scene and complete the search phase of an SAR more quickly.
2. All OCSD patrol helicopters now have installed hoists to lower a responder to make an assessment, render basic first aid, and evacuate victims to a hospital, if necessary.
3. Remote/off-road incidents may need to be treated as potential crimes until proven otherwise. The OCSD is specifically trained in making that determination and preserving evidence if the injury is suspicious (e.g., off-roading while DUI, suspected assault, etc.). Additionally, if the SAR event has potential criminal involvement, OCSD crews and medics are armed and trained in law enforcement.

4. All counties adjacent to Orange County designate their sheriff’s departments as lead agency for remote/off-road SARs.

The BOS decision can have greater benefits for the public if the rapid deployment capabilities of OCSD are joined by the paramedic expertise of OCFA. This combination has proved highly successful in other counties. Some incident reports on SAR communications have noted concerns regarding a lack of common rescue terminology between air and ground resources; this concern can be mitigated by combining crews.

Section Summary - Air Operations/Search and Rescue (SAR)

OCSD is most effective serving as the lead in remote/off-road rescues because they will usually arrive on scene more quickly and are trained to preserve potential crime scenes. With experienced OCFA paramedics on board their helicopters, the OCSD OCFA combination could quickly render more effective aid.

Facilities

Substantial efficiencies could be realized if the OCSD Aviation Support Unit relocated to the OCFA-owned hangars at Fullerton Airport. Two of these are underused and leased to private entities. The colocation of OCSD and OCFA Air Support Units at Fullerton Airport would have the following benefits:

- economies of scale in procurement, maintenance, and training
- opportunities for sharing common, high-cost equipment such as hoists, cranes, paint booths, maintenance, fueling stations, and training equipment
- cost savings for hangar space
- a better, larger workspace for OCSD
- enhanced cooperation and trust

Section Summary – Facilities

Colocating allows public aviation units to leverage each other’s resources, gain economies of scale in maintenance and training, and encourages use of best practices.

Each agency operates independently; each one has its own pilots, crews, mechanics, administrative staff, maintenance shops, hangars, offices, logistics, training programs, and fueling services – four individual organizations with duplicate operations. Substantial advantages can be gained by consolidating these four separate air support entities.

Ultimately, the close cooperation of the OCSO and OCFA air support units could extend to the creation of one consolidated public agency aviation support organization for the county that includes the cities of Anaheim and Huntington Beach. This consolidation could provide Orange County residents with numerous economies of scale:

- capability to have enough staff, support, and equipment to keep a helicopter in the air around the clock
- significant reduction of overhead, logistical, and operating costs
- better coordination during emergencies
- efficient resource utilization with lower operating expenses
- best practices and pooled expertise for safer operations
- more aviation experience for mentoring
- larger talent pool for development of senior aviation leadership

Examples of at least partial consolidation can be found in San Diego, San Bernardino, and Santa Barbara Counties, which combine elements of County Sheriff and Fire air units into one organization.

Section Summary - Consolidation

Consolidating helicopter air units has proved effective in other California counties and may be in the best public interest of Orange County.

FINDINGS

In accordance with *California Penal Code* Sections 933 and 933.05, the 2017-2018 Grand Jury requires (or, as noted, requests) responses from each agency affected by the findings presented in this section. The responses are to be submitted to the Presiding Judge of the Superior Court.

Based on its investigation titled “Competition or Collaboration – Orange County’s Public Agency Helicopters,” the 2017-2018 Orange County Grand Jury has arrived at eleven principal findings, as follows:

- F1. Operating fifteen public agency helicopters in a busy and compressed airspace necessitates close cooperation and communication.
- F2. While responding to search and rescue events, Orange County Sheriff’s Department and Orange County Fire Authority helicopters have flown too close to each other without adequate communication or coordination, which behavior could result in flight safety issues.
- F3. Some air crew members and management personnel of the Orange County Fire Authority and Orange County law enforcement air support units have expressed serious concerns regarding each other’s flight safety and aerial rescue operations.
- F4. The Orange County Sheriff’s Department has sufficient staffing, equipment, and training to implement the Board of Supervisors’ resolution that the Sheriff should be the lead agency for remote/off-road search and rescues.
- F5. Orange County public agencies have substantially more helicopters per square mile than any county in southern California, which provides opportunity for further cost-benefit analysis.
- F6. Sheriff’s helicopters and pilots with fire department paramedics onboard are used in many other California counties, including San Bernardino, San Diego, and Santa Barbara and have proven to be an effective combination.
- F7. Orange County’s public aviation units lack inter-agency coordination, inhibiting efficient and cost-effective resource utilization.
- F8. Orange County Sheriff’s Department does not have mid- to senior-level leadership with prior pilot experience who can provide appropriate oversight for flight operations and help resolve interagency issues.

F9. Orange County Fire Authority does not have mid- to senior-level leadership with prior pilot experience who can provide appropriate oversight for flight operations and help resolve interagency issues.

F10. Orange County air support units could benefit from collocating at Fullerton Airport where they can leverage existing facilities.

F11. Several nearby counties have gained efficiencies by successfully consolidating their sheriffs' and fire agencies' air support units into one organization within each county.

RECOMMENDATIONS

In accordance with *California Penal Code* Sections 933 and 933.05, the 2017-2018 Grand Jury requires (or, as noted, requests) responses from each agency affected by the recommendations presented in this section. The responses are to be submitted to the Presiding Judge of the Superior Court.

Based on its investigation titled “Competition or Collaboration – Orange County’s Public Agency Helicopters,” the 2017-2018 Orange County Grand Jury makes the following seven recommendations.

R1. By October 1, 2018, the Board of Supervisors, in coordination with the affected agencies, should consider forming and implementing an Orange County air operations safety council under the direction of the Board of Supervisors. (F1, F2, F3, F7, F8, F9)

R2. By September 1, 2018, the Orange County Sheriff’s Department should implement the Board of Supervisors’ resolution identifying OCSD as the lead agency for wilderness, remote/off-road Search and Rescue and work with OCFA to establish procedures for communications while either party is providing assistance or backup. (F1, F2, F3, F4, F8)

R3. By September 1, 2018, Orange County Fire Authority management should develop and present its board with proposed procedures for how to work cooperatively with Orange County Sheriff’s Department as OCSD implements the Board of Supervisors’ resolution identifying OCSD as the lead agency for wilderness, remote/off-road Search and Rescue and work with OCSD to establish procedures for communications while either party is providing assistance or backup. (F1, F2, F3, F4, F9)

R4. By January 15, 2019, the Orange County Fire Authority in collaboration with the Orange County Sheriff’s Department should identify and implement methods for its paramedics to operate jointly with the Orange County Sheriff’s Department Air Support Unit in its search and rescue operations to the maximum extent practical. (F3, F6, F11).

R5. By December 15, 2018, the Orange County Sheriff’s Department and the Orange County Fire Authority should evaluate potential costs and operational benefits of collocating their air units at the Fullerton Airport. The Orange County Sheriff’s Department should plan on presenting this evaluation to the Board of Supervisors and publicly post. The Orange County Fire Authority should prepare and present this evaluation to their board and publicly post it. (F1, F2, F3, F7, F10, F11)

R6. By January 15, 2019, the Board of Supervisors, in coordination with the affected agencies, should consider a plan for a centralized approach to public agency air support including collocating and eventually consolidating the various Orange County city and county aerial support units. (F1, F2, F3, F5, F6, F7, F8, F9, F10, F11)

R7. By January 15, 2019, Orange County Sheriff’s Department, Orange County Fire Authority and the cities of Huntington Beach and Anaheim air support units should consider the benefits of a leadership plan that brings a manager with pilot experience into positions above the unit level. (F1, F2, F3, F7, F8, F9, F10)

RESPONSES

The following excerpts from the California Penal Code provide the requirements for public agencies to respond to the findings and recommendations of this Grand Jury report:

§933(c)

“No later than 90 days after the grand jury submits a final report on the operations of any public agency subject to its reviewing authority, the governing body of the public agency shall comment to the presiding judge of the superior court on the findings and recommendations pertaining to matters under the control of the governing body and every elected county officer or agency head for which the grand jury has responsibility pursuant to Section 914.1 shall comment within 60 days to the presiding judge of the superior court, with an information copy sent to the board of supervisors, on the findings and recommendations pertaining to matters under the control of that county officer or agency head or any agency or agencies which that officer or agency head supervises or controls. In any city and county, the mayor shall also comment on the findings and recommendations. All of these comments and reports shall forthwith be submitted to the presiding judge of the superior court who impaneled the grand jury. A copy of all responses to grand jury reports shall be placed on file with the clerk of the public agency and the office of the county clerk, or the mayor when applicable, and shall remain on file in those offices. . . . ”

§933.05

“(a) For purposes of subdivision (b) of Section 933, as to each grand jury finding, the responding person or entity shall indicate one of the following:

- (1) The respondent agrees with the finding.*
- (2) The respondent disagrees wholly or partially with the finding, in which case the response shall specify the portion of the finding that is disputed and shall include an explanation of the reasons therefor.*

(b) For purposes of subdivision (b) of Section 933, as to each grand jury recommendation, the responding person or entity shall report one of the following actions:

- (1) The recommendation has been implemented, with a summary regarding the implemented action.*
- (2) The recommendation has not yet been implemented, but will be implemented in the future, with a timeframe for implementation.*
- (3) The recommendation requires further analysis, with an explanation and the scope and parameters of an analysis or study, and a timeframe for the matter to be prepared for discussion by the officer or head of the agency or department being investigated or reviewed, including the governing body of the public agency when applicable. This timeframe shall not exceed six months from the date of publication of the grand jury report.*

(4) The recommendation will not be implemented because it is not warranted or is not reasonable, with an explanation therefor.

(c) However, if a finding or recommendation of the Grand Jury addresses budgetary or personnel matters of a county agency or department headed by an elected officer, both the agency or department head and the board of supervisors shall respond if requested by the grand jury, but the response of the board of supervisors shall address only those budgetary or personnel matters over which it has some decision-making authority. The response of the elected agency or department head shall address all aspects of the findings or recommendations affecting his or her agency or department.”

Comments to the Presiding Judge of the Superior Court in compliance with Penal Code §933.05 are required from:

Responses Required:

Findings:

Orange County Board of Supervisors: F1, F2, F3, F4, F5, F6, F7, F10, F11

Orange County Sheriff/Coroner: F1, F2, F3, F4, F5, F6, F7, F8, F10, F11

Orange County Fire Authority Board of Directors: F1, F2, F3, F5, F6, F7, F9, F10, F11

Anaheim City Council: F1, F3, F5, F7, F10

Huntington Beach City Council: F1, F3, F5, F7, F10

Recommendations:

Orange County Board of Supervisors: R1, R2, R3, R4, R5, R6

Orange County Sheriff/Coroner: R1, R2, R3, R4, R5, R6, R7

Orange County Fire Authority Board of Directors: R1, R2, R3, R4, R5, R6, R7

Anaheim City Council: R1, R6, R7

Huntington Beach City Council: R1, R6, R7

REFERENCES

Documents

1. Orange County Grand Jury 2010-2011 Report: *Review of the Sheriff’s Aviation Support Unit*, Federal Aviation Administration regulations.
2. California Office of Emergency Services, *Law Enforcement Mutual Aid Plan 2016* (SAR) Annex.
3. California Office of Emergency Services *Search and Rescue Model Operating Plan - A Guide for State and Local Government*.
4. Orange County Public Safety Air Operations – *Memorandum of Understanding Orange County Fire Authority and Orange County Sheriff’s Department*, July 24, 2000.
5. Orange County Fire Authority, and Orange County Sheriff’s Department, *Memorandum of Understanding* 2016.
6. Orange County Fire Authority and Orange County Sheriff’s Department *Operating Plan*, 2016.
7. California Fire (Cal-Fire), *Operating Plan*. 2016.
8. United States Forestry Service, *Cleveland National Forest Cooperative Agreement*, January 03, 2011.
9. Riverside County/Orange County/Camp Pendleton, Anaheim, *Automatic Air Agreement*, October 25, 2016.
10. Newport Beach/Laguna Beach/ Orange County Fire Authority, *Rescue Operations Guidelines*, October 2015.
11. Orange County Fire Authority, *Memoranda of Understanding with the City of Orange, Long Beach and Irvine Water District Agreement*, July 10, 2017.
12. Operational Area Fire/Law Memorandum of Understanding – Orange County Fire Authority (OCFA) and Orange County Sheriff’s Department. March 2016. Jointly Authored by San Diego Sheriff’s Department and San Diego City Fire-Rescue Department.
13. Orange County Public Safety Aviation Unit Multi-Aircraft Coordination Guidelines. July 27, 2015.
14. Orange County Sheriff’s Department, *Organizational Command Chart*, 2017.
15. Anaheim Air Support, *Standard Operation Procedure Manual*, 4.42 – 4.5 – 4.5.1. July 15, 2015.
16. Orange County Health Care Agency – Regulatory/Medical Health Services – Emergency Medical Services, *Pre-hospital EMS Air Rescue Procedure* and “EMT-P Provider Criteria”. July 12, 2016.
17. Orange County Sheriff’s Aviation Support Unit, *Operations Summary*, January 01, 2014, updated September 26, 2017.

18. Duquett, Alison, & Door, Les, FAA Press Release Part 1 and Part 11 – *FAA Issues Final Rule to Improve Helicopter Safety*. 14-CFR Parts 91, 120 and 135. February 20, 2014. Accessed December 08, 2017.
19. Orange County Sheriff’s Department Aviation Support Unit “*Search and Rescue Training Manual*” 10/23/17.

Websites

20. The California State Office of Emergency Management Services March 2016. Accessed November 10, 2017
<https://www.caloes.ca.gov/cal-oes-divisions/fire-rescue>
21. Epstein, Curt. June 5, 2009. “Final Report: Poor Communication Cited In Flagstaff EMS Midair.” Accessed May14, 2018.
<https://www.ainonline.com/aviation-news/aviation-international-news/2009-06-05/final-report-poor-communication-cited-flagstaff-ems-midair>.
22. Santa Barbara County Sheriff’s Office. Accessed 5/14/2018.
<https://www.sbsheriff.org/command-and-divisions/support-services/air-support-unit>.
23. San Diego County Sheriff’s Department | ASTREA. Accessed 5/14/2018.
<http://www.sdsheriff.net/astrea>.
24. Federal Aviation Administration. “Regulations Parts 91, 131, 135.” Accessed November 5, 2017. <https://www.faa.gov>
25. National Transportation Safety Board. “NTSB Regulations & Incident/Accident Reporting.” Accessed November 4, 2017. <http://www.nts.gov>
26. Fitzgerald, William Jr. Thesis – “Enhancing Public Helicopter Safety as a Component of Homeland Security”
http://www.dtic.mil/docs/citations/AD1030869_01_Dec_2016

News Articles:

27. Saavedra, T. and Ritchie, E. “Air battle being waged between Orange County Sheriff, fire helicopters over emergency calls”. Accessed September 12, 2017.
tssaavedra@scng.com & eritchie@scng.com Published: May 5, 2017 – updated May 17, 2017
28. “Helicopter Rescue Dispute Escalates Between Sheriff and Fire Officials”. Accessed October 15, 2017.
<http://www.ocregister.com/2107/05/05/sheriff-ceptors-steal-resuce-calls-from-fire-copeters>

29. “Helicopter Rescue Dispute Escalates Between Sheriff and Fire Officials”. Accessed August 12, 2017. [https://voiceofoc.org/2017/08/helicopter-rescue-dspute-escales-between-sherrif - and-fire](https://voiceofoc.org/2017/08/helicopter-rescue-dispute-escalates-between-sherrif-and-fire)
30. Orange County Sheriff’s Department Long Reach of the Law: “How Duke helps nab criminals, save citizens”. November 3, 2016. Accessed September 14, 2017. <http://behingthebadgeoc.com/cities/ocsd-long-reach-law-duke>

APPENDIX

Memorandum of Agreement between Orange County Sheriff’s Department, Anaheim Police Department, Huntington Beach Police Department and California Highway Patrol

**ORANGE COUNTY PUBLIC SAFETY AVIATION UNIT
MULTI-AIRCRAFT COORDINATION GUIDELINES**

The following guidelines have been established and agreed upon by Orange County Public Safety Aviation Units to standardize procedures and expectations in aircraft operations. This document is intended to enhance safety through improved communications and predetermined operating procedures.





AIRCRAFT INCIDENT GUIDELINES:

The pilot in command (PIC) of all Orange County public safety aircraft responding to an incident involving one or more aircraft should immediately advise and coordinate on 122.85 or 123.025 (depending on location) of the area from which they are responding. The decision to move to a secondary frequency will be coordinated by the PIC’s of the aircraft.

The first public safety aircraft to arrive on scene will be designated the primary aircraft and will be in charge of all public safety air operations during the incident. Depending on the circumstances, a second public safety aircraft may be used to assist or relieve the primary aircraft crew.

The PIC of the second public safety aircraft will communicate with the PIC of the primary aircraft. If assistance is requested, the PIC’s will coordinate the approach and subsequent joining of the second aircraft with the incident. The secondary aircraft will remain at least 500’ above and 500’ laterally from the primary aircraft unless coordinated otherwise. **If communication is not established, the second aircraft shall not enter the area and remain at least 1 mile away.**

The PIC of the primary aircraft will decide if and how the incident will be handed off to another aircraft crew. If the incident is handed off, the primary/lower aircraft will depart the area before the secondary aircraft descends to assume primary responsibility. Both PIC’s will maintain constant communications and visual reference to each other during the hand off.

	7-27-15
Orange County Sheriff Air Support OIC	Date
	7-14-15
Anaheim Police Department Air Support OIC	Date
	7-27-15
Huntington Beach Police Department Aero Bureau OIC	Date
	7-23-15
California Highway Patrol Metro OIC	Date
Orange County Fire Authority Air Operations OIC	Date

Appendix 2

Government code search and rescue

California Code, Government Code - GOV § 26614

California Government Code, Title 3, Division 2, Part 3, Chapter 2, Article 1, §26614

The board of supervisors of a county may authorize the sheriff to search for and rescue persons who are lost or are in danger of their lives within or in the immediate vicinity of the county. The expense incurred by the sheriff in the performance of those duties shall be a proper county charge. Authorization for search and rescue activities shall be consistent with guidelines and operating plans contained in the Search and Rescue Model Operating Plan, as developed and adopted by the Office of Emergency Services in consultation with fire protection and law enforcement service providers. The Office of Emergency Services shall make the plan available to counties and fire protection and law enforcement agencies for use and adoption by the board of supervisors and the governing boards of all search and rescue providers. If the board assigns responsibility for search and rescue activities in a manner that is inconsistent with these model operating guidelines, the board shall adopt a resolution to clarify why the local model provides better protections than the Search and Rescue Model Operating Plan, as developed by the Office of Emergency Services, to residents in need of county search and rescue services. Counties are encouraged to adopt their countywide search and rescue plans and to review them on a regular basis. A review of a countywide search and rescue plan shall include, but is not limited to, changes made to the Search and Rescue Model Operating Plan by the Office of Emergency Services. This section shall not be construed to vest any additional powers for search and rescue upon sheriffs or any other public safety agency that provides search and rescue.