PUBLIC SAFETY COMMITTEE AGENDA REPORT

DATE: June 16, 2017

AGENDA OF: June 19, 2017

DEPARTMENT: Fire Department

SUBJECT: Discuss and Provide Direction on the Development of a City-wide Unmanned Aircraft Systems (UAS) Ordinace and on the Fire Department's Use of a UAS during Emergency Incidents (FD)

RECOMMENDATION: Discuss and provide recommendations to the City Council with regard to the draft UAS ordinance.

BACKGROUND: Unmanned Aircraft Systems (UAS), commonly referred to as "Drones", have become extremely popular and their use both recreationally and commercially has grown exponentially. The technical advances in flight systems as well as cameras have created concerns for both safety and privacy. The incidents of unauthorized and unsafe use continue to climb and during several wildfires have almost caused catastrophic loss of firefighting aircraft.

In an effort to address these concerns, a handful of cities have developed and put into place UAS ordinances. These ordinances range from the more intolerant policies, like the No-Drone Zone proclamation in Berkeley, California, which bans drones from flying in any airspace within the City limits, to ordinances that put limitations on when and where one may operate a drone. These restrictions include limiting drone operation to only during daylight hours, restricting drone flight over private property, prohibiting operation beyond the visual line of sight of the operator, restricting how close drones can fly near people, all the way to prohibiting operation over any City property including public streets, parks, buildings, open space, and parking lots. Cherry Hills Village, Colorado for instance, requires the registration of hobby operators via an application and a $10 fee. In response, the UAS industry has claimed federal preemption and has been successful in having some states enact legislation codifying this preemption. This has not yet occurred in California.

The Federal Aviation Administration (FAA) has broad regulatory oversight of UASs with regard to flight safety and safety of people and property on the ground. In December 2015, the FAA released a Fact Sheet (attached) which provides guidance to State and Local jurisdictions when developing UAS regulations. In June 2016, they released FAA Rule (Part 107) which expressly rejects federal preemption of local regulations as long as those regulations don't impede on the areas which are regulated by the FAA. Those areas include UAS registration and licensing.

The City of Santa Cruz began its efforts in developing a local UAS Ordinance in March of 2016 following several complaints from businesses and residents. The most notable unsafe operations involved a UAS that flew too close to an amusement ride at the Boardwalk almost hitting riders

and the flight of a UAS in close proximity to Junior Guard participants. The City felt justified to create regulations on UAS operations to ensure public safety and protect privacy. These efforts were paused in September 2016 following the issuance of FAA Rule (Part 107). More time was needed for the "dust to settle" in the wake of the FAA changes.

A separate effort by the Fire Department is also occurring concurrently with the UAS Ordinance development. This effort involves the Fire Department's use of a UAS during emergency incidents. A draft use policy (Administrative Policy) has been created which very clearly outlines the situations when a UAS can be deployed for City use. Despite the proven effectiveness of UAS, public safety use of this technology should be balanced against privacy concerns. The Fire Department sincerely understands these concerns and wishes to solicit public input prior to finalizing and implementing the use policy.

DISCUSSION: Currently, the City has a draft UAS ordinance that has been modeled after other ordinances which have been successfully enacted. A UAS Working Group has been created by the City Manager who has appointed the Fire Chief to serve as Chair. Members of the group include representatives from Police, Parks & Recreation, Economic Development, the City Attorney's Office, and the City Manager's Office. We have initiated meetings and distributed assignments. Our plan is to conduct outreach to UAS enthusiast organizations as well as the general public. We hope to be able to address safety and privacy concerns while allowing for the recreational use and enjoyment of UASs.

The Fire Department has conducted extensive research into the public safety use of UASs. Several fire agencies in the Bay Area are effectively using this technology to put "eyes on the incident" without unnecessarily endangering the lives of first responders. The Santa Cruz Fire Department has had several incidents where the use of a UAS would have been incredibly beneficial. From water rescues to mountainous search and rescue responses, a UAS equipped with a thermal imaging or infrared camera greatly improves the chances of identifying "hot spots" and injured/missing persons rapidly. The information provided by a UAS is cost effective, efficient, and avoids subjecting emergency response personnel to hazardous environments.

Staff recommends that the Public Safety Committee review the draft ordinance and move the ordinance forward to the full City Council for consideration. Staff is also seeking Public Safety Committee input into the City use policy of UAS for City business.

FISCAL IMPACT: The fiscal inmpact for the development and eventual adoption of an Unmanned Aircraft Systems Ordinance will be minimal other than the staff time needed to conduct community outreach, to write and revise the ordinance, and to develop and print informational material.

If the Fire Department was to initiate an Unmanned Aircraft Systems program for deployment during emergency incidents, the costs would approximately include $15,000 for the UAS and $7,000 for the training and registration with the FAA. These costs can be absorbed within the FY 2018 Fire Department budget.

Prepared and Submitted by:

Jim Frawley
Fire Chief

ATTACHMENTS:
Draft UAS Ordinace
Draft Fire Department UAS Use Policy
League of California Cities White Paper on UAS Local Regulations
FAA Fact Sheet on State and Local Regulation of UAS

ORDINANCE NO. 2016-__
AN ORDINANCE OF THE CITY COUNCIL OF THE CITY OF SANTA CRUZ ADDING CHAPTER 9.08 TO THE CITY OF SANTA CRUZ MUNICIPAL CODE PERTAINING TO SMALL UNMANNED AIRCRAFT SYSTEMS

WHEREAS, The City of Santa Cruz is a charter law city organized and existing under the Constitution and laws of the State of California and the City Charter; and

WHEREAS, pursuant to the City Charter, the City of Santa Cruz may exercise any power and perform any function relating to its government and affairs, including the power to regulate for the protection of the public health, safety, morals and welfare; and

WHEREAS, the proliferation of small unmanned aircraft, commonly referred to as "drones", is substantial in the City of Santa Cruz, particularly over major recreational areas such as beaches and the Santa Cruz Beach Boardwalk, leading to increased risks to the safe operation of amusement rides and to the patrons and visitors of these areas; and

WHEREAS, drones can be equipped with highly sophisticated surveillance technology that threatens privacy, emits noise and creates air disturbances, have massing that can cause significant damage or injury upon impact and interfere with operation of machinery, and can interfere with, distract or disturb the commission of fire and police emergency and investigative operations; and

WHEREAS, the Federal Aviation Administration (FAA) has recently launched a public awareness campaign urging novice operators to pay attention to safety and to avoid reckless and unsafe activities, such as flying too close to passenger planes, buzzing crowds or operating drones or unmanned aircraft while under the influence of alcohol or drugs; and

WHEREAS, the prevalence and unregulated use of drones throughout the City of Santa Cruz poses a threat to the public health, safety and welfare and has created public health, safety and welfare concerns, including, but not limited to, privacy, nuisance and trespass concerns; and

WHEREAS, the purpose of this ordinance is to establish reasonable rules and regulations solely for the operation of drones within the City of Santa Cruz that are not otherwise licensed by the FAA or conducted pursuant to a certificate of waiver pursuant to Section 333 of the FAA Modernization and Reform Act of 2012.

NOW, THEREFORE, BE IT ORDAINED by the City Council of the City of Santa Cruz as follows:

Section 1. The above recitals are expressly incorporated into this ordinance and made part thereof as though fully set forth therein.

Section 2. Chapter 9.08 "Small Unmanned Aircraft Systems" is hereby added to the City of

Santa Cruz Municipal Code to read as follows:

"CHAPTER 9.08 – SMALL UNMANNED AIRCRAFT SYSTEMS

9.08.010 DEFINITIONS.

As used in this section:

"Aircraft" means any contrivance invented, used or designed to navigate or fly in the air.

"Boardwalk" means the Santa Cruz Beach Boardwalk, including all buildings, structures and open air assembly units thereon.

"City airspace" means the airspace above public or private land, water and waterways within the jurisdiction of the city.

"Firearm" has the meaning ascribed to the term in section 9.26.020.

"Hobby or recreational purposes" means a pursuit engaged in for relaxation, and not for business purposes and not for compensation or hire.

"Open air assembly unit" means any structure, enclosed area or other demarcated space used for the assembly of persons in the open air, including, but not limited to, amusement parks, stadiums, athletic fields, automotive speed ways, aviation fields, band stands, beach enclosures, grandstands, observation platforms, outdoor public swimming pools, outdoor theaters, race tracks, reviewing stands, street festivals or parade routes.

"Operate" means to pilot, steer, direct, fly or manage a small unmanned aircraft through the air whether from within the aircraft or remotely. The term "operate" includes managing or initiating a computer system that pilots, steers, directs, flies or manages a small unmanned aircraft.

"Public aircraft" has the meaning ascribed to the term in Section 40102 of Title 49 of the United States Code.

"Small unmanned aircraft," in accordance with Section 331 of the FAA Modernization and Reform Act of 2012, means an aircraft that (1) is operated without the possibility of direct human intervention from within or on the aircraft, and (2) weighs less than 55 pounds at the time of the operation, including the weight of any payload or fuel. The term "small unmanned aircraft" does not include "toy aircraft" or "public aircraft" as defined herein.

"Small unmanned aircraft system" (small UAS) includes a small unmanned aircraft and its associated elements (including communication links and the components that control the small unmanned aircraft) that are required for the safe and efficient

operation of the small unmanned aircraft in the national airspace system.

"Surveillance" means the gathering, without permission and in a manner that is offensive to a reasonable person, of visual images, remote sensing equipment, physical impressions, sound recordings, data or other information involving the private, personal, business or familial activities of another person, business or entity, or that otherwise intrudes upon the privacy, solitude or seclusion of another person, business or entity, regardless of whether a physical trespass onto real property owned, leased or otherwise lawfully occupied by such other person, business or other entity, or into the airspace above real property owned, leased or otherwise lawfully occupied by such other person, business or other entity, occurs in connection with such surveillance.

"Toy aircraft" means (1) a glider or hand-tossed small unmanned aircraft that is not designed for and is incapable of sustained flight; or (2) a small unmanned aircraft that is capable of sustained flight and is controlled by means of a physical attachment, such as a string or wire.

"Weapon" means any instrument, article or substance that, under the circumstances in which it is used, attempted to be used or threatened to be used, is readily capable of causing death or serious physical injury.

9.08.020 OPERATING REGULATIONS.

(a) Prohibition. Except as otherwise provided in Section 9.08.030, no person shall operate any small unmanned aircraft in city airspace:

(1) except for hobby or recreational purposes only and in conformity with this section;

(2) within twenty-five feet of any individual other than its operator, except during takeoff and landing;

(3) over property that the operator does not own, without the property owner's consent, and subject to any restrictions that the property owner may place on such operation;

(4) at an altitude higher than 400 feet above ground level;

(5) outside the visual line of sight of the operator. The operator shall use his or her own natural vision (which includes vision corrected by standard eyeglasses or contact lenses) to maintain at all times an unobstructed view of the small unmanned aircraft, without the use of vision-enhancing devices, such as binoculars, night vision goggles, powered vision magnifying devices, goggles designed to provide a "first person view" from the model or similar devices;

(6) over or within 100 feet of the Boardwalk unless authorized to do so by an authorized representative of the Santa Cruz Seaside Company, or in a manner that interferes with the operation of amusement rides.

(7) over or within 500 feet of a police investigation, traffic accident, medical emergency, fire, fire investigation, marine rescue, or public safety training exercise.

(8) except during daylight hours;

(9) whenever weather conditions impair the operator's ability to operate the small unmanned aircraft safely;

(10) over any open air assembly unit, school, school yard, hospital, place of worship, jail or other detention facility, fire or police station, or City of Santa Cruz facility without the property owner's consent, and subject to any restrictions that the property owner may place on such operation;

(11) over any City of Santa Cruz beach, park or recreational facility, when entrances to such areas are posted with signs notifying members of the public that such operation is prohibited;

(12) over or within 500 feet of any City of Santa Cruz water intake, or sewer or water storage, treatment or distribution facility that is not generally accessible to the public without the consent of the City of Santa Cruz, and subject to any restrictions placed on such operation;

(13) for the purpose of conducting surveillance, unless expressly permitted by law;

(14) while under the influence of alcohol, or other drug or drugs, intoxicating compound or compounds or any combination thereof, in such a manner as to make it unlawful for the person to operate a vehicle under California Penal Code Section 23152;

(15) that is equipped with a firearm or other weapon;

(16) with intent to use such small unmanned aircraft or anything attached to it to cause harm to persons or property;

(17) in a reckless or careless manner; or

(18) in violation of any Federal or State law.

(b) Exceptions.

The prohibitions in this section do not apply to:

(1) The operation of unmanned aircraft by police, fire or other emergency responder in performance of official duties; or

(2) The operation of unmanned aircraft by a governmental agency or with the prior approval of a governmental agency in the performance of a governmental function or to assist in the performance of a governmental function.

9.08.030 EXEMPTIONS—FAA AUTHORIZED OPERATIONS

(a) Notwithstanding the prohibitions set forth in this Chapter, nothing in this section shall be construed to prohibit, limit or otherwise restrict any person who is authorized by the Federal Aviation Administration to operate a small unmanned aircraft in city air space, pursuant to Section 333 of the FAA Modernization and Reform Act of 2012 or a certificate of waiver, certificate of authorization or airworthiness certificate under Section 44704 of Title 49 of the United States Code or other Federal Aviation Administration grant of authority for a specific flight operation(s), from conducting such operation(s) in accordance with the authority granted by the Federal Aviation Administration.

(b) Operations prohibited by the FAA—Clarification. Nothing in this section shall be construed to authorize the operation of any small unmanned aircraft in city airspace in violation of any Federal statute or rules promulgated thereunder, including, but not limited to, any temporary flight restrictions or notices to airmen issued by the Federal Aviation Administration.

(c) Operations authorized by the State of California – Exception. Notwithstanding the prohibitions set forth in this section, nothing in this section shall be construed to prohibit the use of a drone by a law enforcement agency or other emergency response personnel in accordance with applicable provisions of State or Federal law.

9.08.050 VIOLATION—PENALTY

Any person who violates any provision of this Chapter is guilty of an infraction for the first offense provided, however, that the City Attorney, in his or her discretion, may charge any person who is cited for a violation of this Chapter and receives a second citation within six months thereafter with a misdemeanor.

9.08.060 LIABILITY FOR INJURIES TO THE PUBLIC

If, as a result of any person operating any small unmanned aircraft in violation of this chapter, any person suffers injury or damage to person or property, the property owner shall be liable to such person for the resulting damages or injury. The city of Santa Cruz shall also have a cause of action for indemnity against such operator for any damages the city may be required to pay in satisfaction of any judgment or settlement of any claim that

results from injury to persons or property as a legal result of the operation in violation of this chapter.

Section 3. Severability. If any word, phrase, sentence, part, section, subsection, or other portion of this ordinance or any application thereof to any person or circumstance is declared void, unconstitutional, or invalid for any reason, then such word, phrase, sentence, part, section, subsection, or other portion, or the proscribed application thereof, shall be severable, and the remaining provisions and all applications thereof, not having been declared void, unconstitutional or invalid, shall remain in full force and effect. The City of Santa Cruz hereby declares that it would have adopted this ordinance, and each section, subsection, sentence, clause and phrase thereof, irrespective of the fact that any one or more sections, subsections, sentences, clauses or phrases had been declared invalid or unconstitutional.

Section 4. Effective Date. This ordinance shall take effect and be in force thirty (30) days after final adoption.

PASSED FOR PUBLICATION this 13th day of September, 2016, by the following vote:

AYES:
NOES:
ABSENT:
DISQUALIFIED:

APPROVED: _____
Mayor

ATTEST: _____
City Clerk Administrator

PASSED FOR FINAL ADOPTION this _____ day of _____, 2016 by the following vote:

AYES:
NOES:
ABSENT:
DISQUALIFIED:

APPROVED: _____
Mayor

ATTEST: _____
City Clerk Administrator

This is to certify that the above and foregoing document is the original of Ordinance No. 2016-_____ and that it has been published or posted in accordance with the Charter of the City of Santa Cruz.

_____
City Clerk Administrator

ATTACHMENT 2

SUBJECT: Use of Unmanned Aerial Systems (UAS)

PURPOSE: To establish minimum standards on the use and oversight of UAS

POLICY: The Santa Cruz Fire Department shall use UAS to assist during emergency incidents to provide situational awareness to incident command. UAS, related equipment and data collected from their deployment shall be used in accordance with Local, State and Federal laws.

DEFINITIONS:

- Aircraft - Any contrivance invented, used or designed to navigate or fly in the air.
- Operate - To pilot, steer, direct, fly or manage a small unmanned aircraft through the air whether from within the aircraft or remotely. The term "operate" includes managing or initiating a computer system that pilots, steers, directs, flies or manages a small unmanned aircraft.
- Small Unmanned Aircraft (UAV) in accordance with Section 331 of the FAA Modernization and Reform Act of 2012 - An aircraft that (1) is operated without the possibility of direct human intervention from within or on the aircraft, and (2) weighs less than 55 pounds at the time of the operation, including the weight of any payload or fuel.
- Small Unmanned Aircraft System (small UAS) - A small unmanned aircraft and its associated elements (including communication links and the components that control the small unmanned aircraft) that are required for the safe and efficient operation of the small unmanned aircraft in the national airspace system.

GENERAL PROVISIONS:

A. Prior to deployment, the UAS operator must be adequately trained in its use and operation, and must be knowledgeable of the standards set forth in this policy.

B. Any operation of the UAS must fully comply with all Federal Aviation Administration (FAA) requirements and guidelines, including the acquisition of a Certificate of Authorization or Waiver from the FAA.

C. The UAS operator shall properly document each deployment of the UAV to include at minimum:
    a. Date, time and purpose of deployment
    b. Flight path and flight duration
    c. Incident number
    d. Data collected

D. The UAV shall be limited to operate in the area of the incident and in the sightline of the operator unless conducting a large area operations

E. The UAV shall not interfere with the flight operations of any fixed wing or rotary winged aircraft.

F. The UAV can be operated during emergency incidents where fixed wing or rotary winged aircraft are being used only after permission is granted from the Incident Commander and the Air Operations Officer.

G. The UAS may be deployed for emergency operations by direction of the Incident Command or their designee. Emergency operations include, but are not limited to:
    a. Structure Fires
    b. Wildland Fires
    c. Urban Interface Fires
    d. Search and Rescue Operations
    e. Water Rescues
    f. Technical Rescues
    g. Traffic Collisions
    h. Hazardous Materials (HAZMAT) Incidents
    i. Mass Casualty Incidents (MCI)
    j. Natural Disasters
    k. Threats to Public Safety
    l. Emergency situations approved by the Fire Chief or City Manager

H. The UAS may be deployed for non-emergency operations only by approval of the Fire Chief or City Manager. Non-emergency operations include, but are not limited to:
    a. Training operations
    b. Public Education
    c. Pre-planning
    d. Wildland-Urban Interface evaluation
    e. Large gatherings
    f. Special Events
    g. Testing and evaluation of the UAS

I. The UAS may be deployed for mutual aid incidents and allied agency requests only after approval by the Fire Chief or City Manager.

J. Unless the UAS operation has been designated exempt from public disclosure, the UAS operation shall be a public record. Such records will be retained for at least one year before being purged. All flight data showing flight time and flight path shall be downloaded and retained for at least one year before being purged.

K. All video or photographic data collected during the course of a flight which is not relevant to an emergency management or mapping purpose, training, or is not relevant to a criminal investigation, shall be destroyed within seventy two hours of the termination of the flight on which they were collected.

L. Unless otherwise exempted from public disclosure by terms of this policy, all data collected by the UAS and retained by this department, shall be open for public inspection.

M. A written quarterly report shall be presented to the City Council Public Safety Committee which discloses:
    a. The number of flights
    b. Total time UAS was used for all flights
    c. The call types that the UAS was used at
    d. Total cost of the UAS flights including cost of personnel and maintenance
    e. The number of flights where data was collected and retained and the use of that data
    f. An explanation of why the UAS was used when its use required the approval by the Fire Chief or City Manager

Unmanned Aircraft Systems Policy Statement and Guidelines for Local Regulation

Objective

The purpose of this paper is to lay the foundation for an integrated regulatory framework for unmanned aerial systems (UAS), or drones, comprised of a seamless web of federal, state and local regulations that will work in harmony, complementing one another to ensure an effective regulatory approach that reduces risk and increases the positive uses of drones.

This objective is particularly urgent given the active efforts in state legislatures across the country, including California, to strip cities of the ability to enact reasonable regulations that protect their residents and enable productive use of drones.

While the efforts of the drone industry to achieve local pre-emption have so far failed here in California, the industry is engaged in a nationwide push, seeking to preempt cities in every state. We expect that the industry will continue to push for policies in Sacramento to eliminate local governments' ability to enact reasonable and common sense restrictions on behalf of their communities.

Overview

To accomplish the paper's objective of laying the foundation for reasonable regulation based on time, place and manner restrictions by for local governments, this paper will describe the broad existing authority of cities to address drone-related concerns and assess how local government regulations fit into an overall regulatory scheme for this technology. In addition, the League has compiled a variety of resources for cities, attached as appendices, which include the following:

- **Appendix A: FAA Guidance to Cities, Counties, and States**
- **Appendix B: Do's and Do Not's of a Municipal Drone Ordinance**

Introduction

As of this writing (February 2017), the impetus for this guidance from the viewpoint of California cities is twofold: (1) to preserve the authority of cities to address uniquely local concerns as drone operations increase dramatically, and (2) to enable cities to welcome the economic benefits of drone operations through narrowly-tailored and enforceable rules.

In recent years, California cities have seen a significant rise in the number of drone-related incidents that illustrate the challenges cities will need to address now and in the future. In the

past year, there have been numerous incidents in which drones interfered with first responders, including firefighting aircraft, air ambulance helicopters, and law enforcement helicopters.[1] Drone interference with firefighting aircraft reached such a level that in July 2016, the U.S. Department of the Interior confirmed that it was partnering with private sector entities on technology to help ground drones entering restricted airspace.[2] Drones have crashed into power substations leaving entire neighborhoods without power.[3] Drones have been seen flying over critical infrastructure without permission.[4] Drones have been operated above police stations.[5] Drones have flown over large public gatherings, falling from the sky, injuring children and damaging property.[6] The drone industry has not released statistics about their failure rates, or the standards to which their products are built, meaning it is impossible to know if or when a drone will simply fall from the sky injuring people or property below.[7] While federal law prevents drones from flying over unprotected people, there is no federal prohibition on flying over or adjacent to almost any other place (like roads, outside windows of apartments, schools, and single family homes, police stations, fire houses, etc.) meaning communities are at the mercy of falling or out-of-control drones, the reliability of whose construction is unknown.

While some activities are prohibited by federal law, cities face a challenge in enforcing federal law or relying on existing law to address unsafe or reckless operation of this technology. Opponents of municipal regulations may argue that general conduct based rules like recklessness or general statutes like nuisance are enough. Yet cities across the nation have had substantial difficulty prosecuting cases using statutes of general applicability.[8]

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[1] In its recent Fact Sheet, the FAA stated that "incidents involving unauthorized and unsafe use of small, remote-controlled aircraft have increased from 238 sightings in all of 2014 to 780 through August of [2015]. During this past summer, the presence of multiple UAS in the vicinity of wild fires in the western U.S. prompted firefighters to ground their aircraft on several occasions." *See* State and Local Regulation of Unmanned Aircraft (UAS) Fact Sheet, Federal Aviation Authority (December 17, 2015).

[2] "As Sand Fire Rages, Feds Turn Up Heat in Fight Against Drones Interfering in Wildfires," CNBC (July 26, 2016)

[3] Drone Hits West Hollywood Power Lines Causes Power Outage, ABC 7 (OCTOBER 26, 2015), HTTP://ABC7.COM/NEWS/DRONE-HITS-WEST-HOLLYWOOD-POWER-LINES-CAUSES-POWER-OUTAGE/1052589/

[4] Drone's Eye View in the South Bay, EASY READER NEWS (September 4, 2014) http://www.easyreadernews.com/86621/drones-eye-view-south-bay/.

[5] Serna, Joseph, LAPD Seeks to Limit Civilian Drone Flights over Police Stations, LA TIMES (August 1, 2014), http://www.latimes.com/local/lanow/la-me-ln-lapd-civilian-drone-hollywood-lot-20140801-story.html.

[6] Weikel, Dan, 11-month-old Girl Hit in Head by Crashing Drone; FAA Investigating, LA TIMES (September 15, 2015), http://www.latimes.com/local/lanow/la-me-ln-pasadena-drone-flight-20150916-story.html.

[7] Citation: Micro UAS task force report

[8] The City of Seattle, for example, recently required a 4-day trial to prosecute someone for reckless endangerment, despite actual injuries inflicted after a drone flew over a parade, fell from the sky and struck two people. A local prohibition on flights over crowds or in certain downtown areas would have eliminated the need for a long, fact intensive trial and would have allowed the city to make it clear to operators that the conduct was prohibited. Similarly, the City of Los Angeles in prosecuting a person for violation of its drone ordinance, reviewed potential arguments that could be raised under the pre-emption doctrine, and opted to limit the charge to reckless operation of a drone endangering life or property. The jury's verdict was Not Guilty in that they found the defendant operated his drone recklessly, but that it did not rise to the level of endangering life or property. The City cited its concern with a speedy resolution and a desire not to have resources tied down contesting an appeal.

Enforcement though, is only one part of the discussion. More important is the fact that cities have always had the authority to regulate certain kinds of conduct ranging from skateboards and bicycles on city streets and sidewalks, to the usage of heavy equipment, to the requirement that individuals obtain commercial film permits prior to operating in designated areas of the city at certain points in time. These are traditional police, land use, and zoning powers that protect the safety and tranquility of communities, ensure order, and provide for the general welfare.

If a city has the power to make reasonable time, place and manner restrictions around 1st Amendment and 2nd Amendment rights, certainly drone operators can be expected to similarly abide by time, place and manner restrictions. There is no Constitutional right to fly a drone wherever and whenever someone wishes, especially not when property rights, privacy rights, public safety, nuisance protections and the police power are in conflict with that operation.

Notwithstanding the challenges articulated above, the economic benefits and opportunities are enormous. Drone sales are skyrocketing and productive uses are increasing.[9] Drones are saving money, saving time, and saving lives in cities across the country and across California. This is nowhere more true than in how cities and counties are using drones themselves. Police, fire, and other city agencies are using drones to enhance the ways they serve their citizens, including search and rescue activities,[10] emergency medical response,[11] firefighting, accident investigation, and more. [12] Thus, cities have to weigh the real and immediate benefits of drone use against the safety, privacy, and nuisance concerns that often loom large.

The task of balancing costs and benefits, however, does not rest solely on cities. Federal and state regulators have and will continue to play a role in articulating the rules that will help ensure safe drone operations. An appropriate role for Federal and state regulators, does not mean that preemption is the answer. On the contrary, local regulations can and should complement federal and state regulations in an integrated regulatory framework. This is a critical point because downtown San Francisco is very different from Oxnard, or Napa. State and federal regulators will never know on which sidewalk special coordination is needed prior to operating a drone, they won't know about local public gatherings, nor will they know which areas of town raise particular concerns. Cities, however, are quite adept at making these types of decisions based on local information and local context. In addition, in the event of drone incidents, it is local agency first responders (primarily police and fire) who will get the call. Local governments can and should enact ordinances to guide that response when local police and fire agencies are inevitably called upon.

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[9] See Selyukh, Alina, FAA Expects 600,000 Commercial Drones In The Air Within A Year, NPR, (August 29, 2016) http://www.npr.org/sections/thetwo-way/2016/08/29/491818988/faa-expects-600-000-commercial-drones-in-the-air-within-a-year; Lowry, Joan, FAA Faces Big Drone Demand, TIMESUNION, (September 16, 2016) http://www.timesunion.com/news/article/FAA-faces-big-drone-demand-9228572.php; "Fact Sheet: New Commitments to Accelerate the Safe Integration of Unmanned Aircraft Systems", The White House, 2016.

[10] Juarez, Leticia, Riverside County Sheriff's Dept. to use Drones in Search and Rescue, ABC NEWS 7 (April 1, 2016), http://abc7.com/news/riverside-county-sheriffs-dept-to-use-drones-in-search-and-rescue-missions/1273122/.

[11] Starr, Michelle, Ambulance Drone Delivers Help to Heart Attack Victims, CNET (October 28, 2014), https://www.cnet.com/news/ambulance-drone-delivers-help-to-heart-attack-victims/

[12] Stoltze, Sherrif Launches First Police Drones in LA County, SCPR (January 12, 204), http://www.scpr.org/news/2017/01/12/68076/sheriff-launches-first-police-drones-in-la-county/.

Finally, the technology that powers drones is rapidly evolving and, in fact, many of the challenges faced by cities today will be solved by the technology of tomorrow. Such technologies include advanced permitting systems, geo-fencing, detailed mapping systems built into the drones, and eventually air traffic management for drones (also known as Unmanned Traffic Management).[13]

This, then, is the task for cities: preserving the existing authority to adopt narrowly-tailored rules relating to drone operations consistent with their local police power and FAA guidance, while enabling the many benefits of drone technology. The League's objective is to arm cities to exercise their authority in a responsible and defensible fashion.

Background

Industry Advocates of Preemption

In advocating before the U.S. Congress as well as the Federal Aviation Administration (FAA) and in various state legislatures around the country, some members of the UAS industry have argued that state and local regulations are completely pre-empted by the federal regulations promulgated by the FAA. The pre-emption of any other regulations in U.S. airspace, they argue, is total. In advancing this argument, the industry has claimed that any outdoor operation by a drone is effectively in the navigable airspace, and thus cities have no authority to regulate any activity by a drone.

The reality as expressed by the FAA is somewhat different. The FAA has publicly staked out a more qualified form of pre-emption in the area of UAS regulation, both in its December 2015 fact sheet, as well as in its long awaited rules for drone operation, so-called Part 107 rules.[14] For example, the FAA articulated a number of areas where state and local laws may be appropriate to regulate some of the concerns associated with drone operations, including:

- "State law and other legal protections for individual privacy may provide recourse for a person whose privacy may be affected through another person's use of a UAS."
- "State and local laws, such as trespassing, may provide a remedy for companies whose small UAS operations are deliberately interfered with by people entering the area of operation without permission."
- "State law and other legal protections may already provide recourse for a person whose individual privacy, data privacy, private property rights, or intellectual property rights may be impacted by a remote pilot's civil or public use of a UAS."
- "Property rights are beyond the scope of this rule. However, the FAA notes that, depending on the specific nature of the small UAS operation, the remote pilot in command may need to comply with State and local trespassing rules."

[13] Drone Advisory Committee, Introduction (posted on December 8, 2016), http://videos.sorensonmedia.com/FAA/DAC+Intro+v5/08231d21Be51fR410508361Tba21bc019464.
[14] 14 C.F.R. Part 107

- "[H]obbyists or other third parties who do not have the facility owner's permission to operate UAS near or over the perimeter or interior of amusement parks and attractions may be violating State or local trespassing laws."

Additional Guidance from the FAA

In fact, in January of 2017, the FAA Administrator, Michael Huerta, appeared at the U.S. Conference of Mayors annual conference in Washington D.C. and indicated that *state and local governments have substantial authority*, that the rules for manned aviation do not necessarily apply to unmanned aircraft, and that a national conversation is necessary. That conversation has begun at the FAA's Drone Advisory Committee and because it may lead to state and local governments having greater authority, we expect the industry will be pushing hard for preemption this year as it may be their last chance.

In addition to the general guidance provided in the Fact Sheet and the context of Part 107, the FAA, in response to queries from cities, counties, and states, has provided even more concrete statements of the scope of municipal authority.

> *For specific guidance from the FAA on this point, please see the letters from the FAA attached as* ***Appendix A: FAA Guidance to Cities, Counties, and States****.*

State Preemption

After unsuccessful efforts to effect federal preemption, certain interests within the UAS industry have pursued preemption at the state level.

Opponents of municipal drone regulations commonly make an argument about an alleged "patchwork quilt" of laws. According to this argument, reasonable time, place, and manner restrictions relating to drones will be confusing for operators to understand. This argument also stems from federal precedent relating to airliners transiting flying across the country, which is entirely irrelevant when applied to drone operations which take place between homes and above city sidewalks where airliners have never operated.

An argument about a patchwork is also an oversimplification and mischaracterization of the role municipalities play in an integrated regulatory environment. Different cities require different building and film permits: does this "patchwork" hamper construction? Some cities permit bicycles on certain sidewalks, while prohibiting them on others. Cities throughout California have, for decades, prohibited model aircraft in certain parks while allowing them in other parks. This is the essence of local control. The use of a loud or dangerous piece of equipment may make sense in a light commercial district, however the use of the same equipment in a residential neighborhood may require greater coordination or protections. The only elected officials who understand this context are local officials. While the patchwork argument is a strawman, it would be wise for cities to avoid enabling this argument (as discussed below).

The rules that apply to automobiles or other ground-based vehicles are a useful example in this case. Drivers, commercial or recreational, are subject to a host of rules (federal, state or local) that govern when and where you can drive in a given community. Nonetheless, stop signs, traffic lights, speed limits and time-based restrictions (such as around schools) do not make it "confusing" or impossible to operate a car.

Rather, it is those very rules, clearly conveyed to drivers, that allow cities to welcome vehicles. Cities know that if a safety risk emerges (e.g., an area where accidents are likely to happen or speeding habitually), they will have the flexibility to put a stop sign or change the speed limit. Similarly, cities can allow commercial driving knowing that they have the authority to restrict such activity if it poses a nuisance or hazard to citizens (for instance, limiting the hours when trash trucks may operate in a given neighborhood or the size of a vehicle that may operate on a certain road). Cities know that in crowded pedestrian areas, skateboarding, rollerblading, or bicycling may need to be prohibited, and on certain beaches and in certain parks even throwing a ball may be prohibited at certain times.

The invention of drones didn't suddenly make local control unnecessary. On the contrary, it is an argument in favor of local control where cities can determine how to best to welcome the beneficial uses of drones while balancing the potential harms. Through this iterative discussion at the local level, the best policies will emerge. The answer to the fallacious "patchwork quilt" argument is for cities to narrowly tailor rules to their particular concerns and effectively communicate relevant rules to operators.

> *For a discussion of this issue in greater detail, please see the League guidance attached as **Appendix C: Do's and Do Not's of a Municipal Drone Ordinance**.*

Local Regulatory Framework

Given the background above and the nature of this relatively new technology, local governments, in crafting a local regulatory framework, should strive to craft and enact regulations that accomplish the following objectives:

1) Are narrowly crafted so as to enhance public safety without being unduly restrictive.
2) Are a reasonable use of municipal police power under Article XI, Section 7 of the California Constitution.
3) Do not invite charges of federal pre-emption, based on the guidance provided by the Federal Aviation Administration.[15]
4) Are harmonized with state and local regulations to ensure an integrated and intelligible regulatory framework.
5) Encourage positive commercial and recreational uses of drones by providing clear guidelines.

To that end, the League of California Cities has drafted a process for developing a city ordinance as well as guidance on the types of language that a city may consider using without increasing its litigation risk or incurring a preemption challenge upon enforcement.

Guidelines for Local Regulation of Operation of Unmanned Aerial Vehicles.

Ordinance Development Process

1. The governing body shall provide input to a working group of city officials, to be headed by the City Manager, or his or her designee, on the local regulatory and public safety priorities preserving municipal constitutional police powers that in the governing body's judgement must be incorporated into the local regulatory framework relating to the operation of UAS in the jurisdiction.
    a. These reserved police powers should include:
        1) A specific prohibition against careless and reckless operations that endanger life or property.[16]
        2) Designated take-off and landing zones for UAS within the city limits.
        3) Permissible hours of operation.
        4) Rules for operation of UAS during parades, public holiday celebrations or other city-wide civic events.
        5) Rules for operation in parks, and on waterfront areas.

[15] See "State and Local Regulation of Unmanned Aircraft Systems (UAS) Fact Sheet, released by the Office of the Chief Counsel of the Federal Aviation Administration, December 17, 2015.

[16] Careless and reckless operations are specifically prohibited by Section 21407 of California's State Aeronautics Act. More importantly, the state, and by implication local district attorneys, can prosecute individuals for violation of this provision. However, careless and reckless operation may not be sufficient to obtain a conviction unless such operation rises to the level of endangering life or property. Local ordinances will likely have to be carefully worded so as to require a substantial danger of such an outcome, or include other language that meets a specific, heightened standard.

6) Rules for operation of UAS during local emergency conditions.[17]
7) Rules placing conditions on the operation of UAS in certain areas of the city (near police stations, schools, or busy pedestrian walkways)
8) Accountability measures to insure that operators are aware of and accountable to local rules.
9) The right to condition the ability to take off and land on receipt of a permit issued by the city, or submission of notice of UAS operations to the city under certain limited circumstances.
10) The right to enact and enforce rules of general applicability in a manner that addresses unsafe drone operations (trespass, nuisance, or noise)
11) Compliance with due process provisions (notice to the public and a comment period for the proposed ordinance prior to adoption)

The working group shall develop a local regulatory framework for a draft ordinance governing the operation of UAS that reflects the priorities identified by the governing body.

2. The City Manager shall appoint the other members of the working group. It is recommended that the composition of the working group include the Chief of Police and the Fire Chief, or at a minimum, that they be consulted.
3. The development of the local regulatory framework shall include input from relevant community stakeholders, including but not limited to: local businesses, local drone clubs and other local model aviation organizations, local aviation associations, schools, local utilities, and if there is an airport of any size within five miles of the jurisdiction, the local airport authority.
4. Upon completion of the local regulatory framework, the City Manager shall review it and either approve it for submission to the City Attorney, or return it to the working group for revision.
5. Once a framework has been approved, the City Attorney shall then prepare a draft ordinance based on the framework. The draft ordinance shall be submitted to the working group for review prior to being submitted to the City Council.
6. Upon its completion, the draft ordinance shall be submitted to the City Council for approval.
7. Once approved by the City Council, the ordinance should be posted online on the City's website, to ensure that the public and in particular drone operators are on notice about the local regulations.
8. The UAS ordinance should be reviewed by the working group periodically for possible revision, which must be approved by the City Council. This may become necessary as the FAA further develops rules for either recreational or commercial UAS.
9. If revision is deemed necessary by the working group, the working group shall reconvene to determine what revisions may be necessary, if any. Steps 4 through 7 of these guidelines should be followed if any revisions are to be proposed to the UAS ordinance.

[17] Prohibiting recreational UAS operations during local emergencies is clearly within the scope of cities' constitutional police power.

ATTACHMENT 4

State and Local Regulation of Unmanned Aircraft Systems (UAS)
Fact Sheet

Federal Aviation Administration
Office of the Chief Counsel

December 17, 2015

BACKGROUND

Unmanned aircraft systems (UAS) are aircraft subject to regulation by the FAA to ensure safety of flight, and safety of people and property on the ground. States and local jurisdictions are increasingly exploring regulation of UAS or proceeding to enact legislation relating to UAS operations. In 2015, approximately 45 states have considered restrictions on UAS. In addition, public comments on the Federal Aviation Administration's (FAA) proposed rule, "Operation and Certification of Small Unmanned Aircraft Systems" (Docket No. FAA-2015-0150), expressed concern about the possible impact of state and local laws on UAS operations.

Incidents involving unauthorized and unsafe use of small, remote-controlled aircraft have risen dramatically. Pilot reports of interactions with suspected unmanned aircraft have increased from 238 sightings in all of 2014 to 780 through August of this year. During this past summer, the presence of multiple UAS in the vicinity of wild fires in the western U.S. prompted firefighters to ground their aircraft on several occasions.

This fact sheet is intended to provide basic information about the federal regulatory framework for use by states and localities when considering laws affecting UAS. State and local restrictions affecting UAS operations should be consistent with the extensive federal statutory and regulatory framework pertaining to control of the airspace, flight management and efficiency, air traffic control, aviation safety, navigational facilities, and the regulation of aircraft noise at its source.

Presented below are general principles of federal law as they relate to aviation safety, and examples of state and local laws that should be carefully considered prior to any legislative action to ensure that they are consistent with applicable federal safety regulations. The FAA's Office of the Chief Counsel is available for consultation on specific questions.

WHY THE FEDERAL FRAMEWORK

Congress has vested the FAA with authority to regulate the areas of airspace use, management and efficiency, air traffic control, safety, navigational facilities, and aircraft noise at its source. 49 U.S.C. §§ 40103, 44502, and 44701-44735. Congress has directed the FAA to "develop plans and policy for the use of the navigable airspace and assign by regulation or order the use of the airspace necessary to ensure the safety of aircraft and the efficient use of airspace." 49 U.S.C. § 40103(b)(1). Congress has further directed the FAA to "prescribe air traffic regulations on the flight of aircraft (including regulations on safe altitudes)" for navigating, protecting, and identifying aircraft; protecting individuals and property on the ground; using the navigable

airspace efficiently; and preventing collision between aircraft, between aircraft and land or water vehicles, and between aircraft and airborne objects. 49 U.S.C. § 40103(b)(2).

A consistent regulatory system for aircraft and use of airspace has the broader effect of ensuring the highest level of safety for all aviation operations. To ensure the maintenance of a safe and sound air transportation system and of navigable airspace free from inconsistent restrictions, FAA has regulatory authority over matters pertaining to aviation safety.

REGULATING UAS OPERATIONS

In § 333 of the FAA Modernization and Reform Act of 2012 (Public Law No. 112-95), Congress directed the Secretary to determine whether UAS operations posing the least amount of public risk and no threat to national security could safely be operated in the national airspace system (NAS) and if so, to establish requirements for the safe operation of these systems in the NAS.

On February 15, 2015, the FAA proposed a framework of regulations that would allow routine commercial use of certain small UAS in today's aviation system, while maintaining flexibility to accommodate future technological innovations. The FAA's Notice of Proposed Rulemaking offered safety rules for small UAS (under 55 pounds) conducting non-recreational or non-hobby operations. The proposed rule defines permissible hours of flight, line-of-sight observation, altitude, operator certification, optional use of visual observers, aircraft registration and marking, and operational limits.

Consistent with its statutory authority, the FAA is requiring Federal registration of UAS in order to operate a UAS. Registering UAS will help protect public safety in the air and on the ground, aid the FAA in the enforcement of safety-related requirements for the operation of UAS, and build a culture of accountability and responsibility among users operating in U.S. airspace. No state or local UAS registration law may relieve a UAS owner or operator from complying with the Federal UAS registration requirements. Because Federal registration is the exclusive means for registering UAS for purposes of operating an aircraft in navigable airspace, no state or local government may impose an additional registration requirement on the operation of UAS in navigable airspace without first obtaining FAA approval.

Substantial air safety issues are raised when state or local governments attempt to regulate the operation or flight of aircraft. If one or two municipalities enacted ordinances regulating UAS in the navigable airspace and a significant number of municipalities followed suit, fractionalized control of the navigable airspace could result. In turn, this 'patchwork quilt' of differing restrictions could severely limit the flexibility of FAA in controlling the airspace and flight patterns, and ensuring safety and an efficient air traffic flow. A navigable airspace free from inconsistent state and local restrictions is essential to the maintenance of a safe and sound air transportation system. *See Montalvo v. Spirit Airlines*, 508 F.3d 464 (9th Cir. 2007), and *French v. Pan Am Express, Inc.*, 869 F.2d 1 (1st Cir. 1989); *see also Arizona v. U.S.*, 567 U.S. ___, 132 S.Ct. 2492, 2502 (2012) ("Where Congress occupies an entire field . . . even complimentary state regulation is impermissible. Field preemption reflects a congressional decision to foreclose any

state regulation in the area, even if it is parallel to federal standards."), and *Morales v. Trans World Airlines, Inc.*, 504 U.S. 374, 386-87 (1992).

EXAMPLES OF STATE AND LOCAL LAWS FOR WHICH CONSULTATION WITH THE FAA IS RECOMMENDED

- Operational UAS restrictions on flight altitude, flight paths; operational bans; any regulation of the navigable airspace. For example – a city ordinance banning anyone from operating UAS within the city limits, within the airspace of the city, or within certain distances of landmarks. Federal courts strictly scrutinize state and local regulation of overflight. *City of Burbank v. Lockheed Air Terminal*, 411 U.S. 624 (1973); *Skysign International, Inc. v. City and County of Honolulu*, 276 F.3d 1109, 1117 (9th Cir. 2002); *American Airlines v. Town of Hempstead*, 398 F.2d 369 (2d Cir. 1968); *American Airlines v. City of Audubon Park*, 407 F.2d 1306 (6th Cir. 1969).
- Mandating equipment or training for UAS related to aviation safety such as geo-fencing would likely be preempted. Courts have found that state regulation pertaining to mandatory training and equipment requirements related to aviation safety is not consistent with the federal regulatory framework. *Med-Trans Corp. v. Benton*, 581 F. Supp. 2d 721, 740 (E.D.N.C. 2008); *Air Evac EMS, Inc. v. Robinson*, 486 F. Supp. 2d 713, 722 (M.D. Tenn. 2007).

EXAMPLES OF STATE AND LOCAL LAWS WITHIN STATE AND LOCAL GOVERNMENT POLICE POWER

Laws traditionally related to state and local police power – including land use, zoning, privacy, trespass, and law enforcement operations – generally are not subject to federal regulation. *Skysign International, Inc. v. City and County of Honolulu*, 276 F.3d 1109, 1115 (9th Cir. 2002). Examples include:

- Requirement for police to obtain a warrant prior to using a UAS for surveillance.
- Specifying that UAS may not be used for voyeurism.
- Prohibitions on using UAS for hunting or fishing, or to interfere with or harass an individual who is hunting or fishing.
- Prohibitions on attaching firearms or similar weapons to UAS.

CONTACT INFORMATION FOR QUESTIONS

The FAA's Office of the Chief Counsel is available to answer questions about the principles set forth in this fact sheet and to consult with you about the intersection of federal, state, and local regulation of aviation, generally, and UAS operations, specifically. You may contact the Office of Chief Counsel in Washington, D.C. or any of the following Regional Counsels:

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APPENDIX – LIST OF AUTHORITIES

Federal Statutes

- 49 U.S.C. §§ 40103, 44502, and 44701- 44735 (former Federal Aviation Act of 1958, as amended and recodified).

- FAA Modernization and Reform Act of 2012, Public Law No. 112-95 (Feb. 14, 2012), Subtitle B, "Unmanned Aircraft Systems."

Federal Regulations

- Title 14 of the Code of Federal Regulations, Chapter 1.

The U.S. Supreme Court

- "Congress has recognized the national responsibility for regulating air commerce. Federal control is intensive and exclusive. Planes do not wander about in the sky like vagrant clouds. They move only by federal permission, subject to federal inspection, in the hands of federally certified personnel and under an intricate system of federal commands. The moment a ship taxies onto a runway it is caught up in an elaborate and detailed system of controls. It takes off only by instruction from the control tower, it travels on prescribed beams, it may be diverted from its intended landing, and it obeys signals and orders. Its privileges, rights, and protection, so far as transit is concerned, it owes to the Federal Government alone and not to any state government." *Northwest Airlines v. State of Minnesota*, 322 U.S. 292, 303 (1944)(Jackson, R., concurring).

- "If we were to uphold the Burbank ordinance [which placed an 11 p.m. to 7 a.m. curfew on jet flights from the Burbank Airport] and a significant number of municipalities followed suit, it is obvious that fractionalized control of the timing of takeoffs and landings would severely limit the flexibility of FAA in controlling air traffic flow. The difficulties of scheduling flights to avoid congestion and the concomitant decrease in safety would be compounded." *Burbank v. Lockheed Air Terminal Inc*., 411 U.S. 624, 639 (1973).

- "The Federal Aviation Act requires a delicate balance between safety and efficiency, and the protection of persons on the ground … The interdependence of these factors requires a uniform and exclusive system of federal regulation if the congressional objectives underlying the Federal Aviation Act are to be fulfilled." *Burbank* at 638-639.

- "The paramount substantive concerns of Congress [in enacting the FAA Act] were to regulate federally all aspects of air safety … and, once aircraft were in 'flight,' airspace management…." *Burbank* at 644 (Rehnquist, J. dissenting).

U.S. Courts of Appeals

- "Air traffic must be regulated at the national level. Without uniform equipment specifications, takeoff and landing rules, and safety standards, it would be impossible to operate a national air transportation system." *Gustafson v. City of Lake Angeles*, 76 F.3d 778, 792-793 (6th Cir. 1996)(Jones, N., concurring).

- "The purpose, history, and language of the FAA [Act] lead us to conclude that Congress intended to have a single, uniform system for regulating aviation safety. The catalytic events leading to the enactment of the FAA [Act] helped generate this intent. The FAA [Act] was drafted in response to a series of fatal air crashes between civil and military aircraft operating under separate flight rules …. In discussing the impetus for the FAA [Act], the Supreme Court has also noted that regulating the aviation industry requires a delicate balance between safety and efficiency. It is precisely because of 'the interdependence of these factors' that Congress enacted 'a uniform and exclusive system of federal regulation.'" *Montalvo v. Spirit Airlines,* 508 F.3d 464, 471 (9th Cir. 2007), citing *City of Burbank v. Lockheed Air Terminal Inc*., 411 U.S. 624, 638-39 (1973).

- "[W]hen we look to the historical impetus for the FAA, its legislative history, and the language of the [FAA] Act, it is clear that Congress intended to invest the Administrator of the Federal Aviation Administration with the authority to enact exclusive air safety standards. Moreover, the Administrator has chosen to exercise this authority by issuing such pervasive regulations that we can infer a preemptive intent to displace all state law on the subject of air safety." *Montalvo* at 472.

- "We similarly hold that federal law occupies the entire field of aviation safety. Congress' intent to displace state law is implicit in the pervasiveness of the federal regulations, the dominance of the federal interest in this area, and the legislative goal of establishing a single, uniform system of control over air safety. This holding is fully consistent with our decision in *Skysign International, Inc. v. Honolulu*, 276 F.3d 1109 (9th Cir. 2002), where we considered whether federal law preempted state regulation of aerial advertising that was distracting and potentially dangerous to persons on the ground. In upholding the state regulations, we held that federal law has not 'preempt[ed] altogether any state regulation purporting to reach into the navigable airspace.' *Skysign* at 1116. While Congress may not have acted to occupy exclusively all of air commerce, it has clearly indicated its intent to be the sole regulator of aviation safety. The FAA, together with federal air safety regulations, establish complete and thorough safety standards for interstate and international air transportation that are not subject to supplementation by, or variation among, states." *Montalvo* at 473-474.

- "[W]e remark the Supreme Court's reasoning regarding the need for uniformity [concerning] the regulation of aviation noise, see *City of Burbank v. Lockheed Air Terminal*, 411 U.S. 624 (1973), and suggest that the same rationale applies here. In *Burbank*, the Court struck down a municipal anti-noise ordinance placing a curfew on jet flights from a regional airport. Citing the 'pervasive nature of the scheme of federal

regulation,' the majority ruled that aircraft noise was wholly subject to federal hegemony, thereby preempting state or local enactments in the field. In our view, the pervasiveness of the federal web is as apparent in the matter of pilot qualification as in the matter of aircraft noise. If we upheld the Rhode Island statute as applied to airline pilots, 'and a significant number of [states] followed suit, it is obvious that fractionalized control ... would severely limit the flexibility of the F.A.A ….' [citing *Burbank*] Moreover, a patchwork of state laws in this airspace, some in conflict with each other, would create a crazyquilt effect … The regulation of interstate flight-and flyers-must of necessity be monolithic. Its very nature permits no other conclusion. In the area of pilot fitness as in the area of aviation noise, the [FAA] Act as we read it 'leave[s] no room for ... local controls.' [citing *Burbank*]. *French v. Pan Am Express, Inc*., 869 F.2d 1, 6 (1st Cir. 1989).