Date of Hearing: April 25,2023

ASSEMBLY COMMITTEE ON PRIVACY AND CONSUMER PROTECTION
Jesse Gabriel, Chair
AB 1016 (Jones-Sawyer) – As Amended March 9, 2023

SUBJECT: Pest control operations: aircraft operations: private applicator

SYNOPSIS

Drones—termed "unmanned aircraft" and "unmanned aircraft systems" in the Government Code—are increasingly used by government, businesses, and private individuals for a variety of purposes, including in agriculture to track the growth of crops, fight pests, identify nutrient deficiencies, and in precision agriculture practices that use global positioning systems technology and geographic information system tools to allow fine scale monitoring and mapping of crops.

In order to use a drone to apply pesticides to agricultural crops, a person must go through a lengthy process in order to become certified. The person is required to pass a Federal Aviation Administration exam proving they can safely fly the drone, then serve as an apprentice pilot to train under a journeyman drone pilot for 50 hours before taking a Department of Pesticide Regulation exam to become a licensed aerial pesticide applicator. According to the sponsors of the bill, the California Farm Bureau, there are currently seven licensed unmanned aerial applicator journeymen in California, compared to hundreds of licensed fixed-wing applicator journeymen. This makes it nearly impossible for people interested in becoming certified drone aerial pesticide applicator pilots to receive the appropriate training in safely applying pesticides using drones as they complete their required 50 hour apprenticeship. As a result, the sponsors note, the apprenticeship requirement has resulted "in a lack of new drone pilots being trained for pesticide applications using precision technology."

To resolve the problem, this bill, streamlines the process by allowing a drone pilot who has passed the FAA testing to begin training with DPR on aerial pesticide spraying, without needing to complete 50 hours of apprenticeship training first.

This bill has no opposition and passed the Agriculture Committee on an 11-0 vote.

SUMMARY: This bill would add the status of private applicator as a designation under the unmanned pest control aircraft (UPCA) pilot's certificate, as specified. Specifically, **this bill**:

1) Adds the private applicator classification to the UPCA certificate for the purpose of using a UPCA for application of pesticides.

2) Requires a person with a private applicator UPCA certificate to only apply pesticides on agricultural commodities on property owned, leased, or rented by the pilot or the pilot's employer.

3) Requires a person with a private applicator UPCA certificate to submit, to the Department of Pesticide Regulation (DPR), proof of completion of a program accredited by DPR and possession of a valid private applicator certificate.

4) Adds a requirement that in order to have a journeyman's UPCA certificate, the applicant has to serve as an apprentice UPCA pilot for one year.

5) Allows DPR to adopt regulations related to the journeyman UPCA certification.

EXISTING LAW:

1) Defines the following terms:

   a) "Unmanned aircraft" means an aircraft that is operated without the possibility of direct human intervention from within or on the aircraft. (Gov. Code § 853.5(a).)

   b) "Unmanned aircraft system" (UAS) means an uncrewed aircraft and associated elements, including but not limited to, communication links and the components that control the uncrewed aircraft, which are required for the pilot in command to operate safely and efficiently in the national airspace system. (Gov. Code § 853.5(b).)

2) Requires any person who operates a crewed or uncrewed aircraft in pest control to, among other things, hold a valid manned or UPCA pilot's certificate issued by DPR. (Food & Ag Code § 11901.)

3) Requires each UPCA pilot's certificate to designate the pilot's status as a journeyman, apprentice, or vector control technician. (Food & Ag. Code § 11902(b)

4) Prohibits the issuance of a journeyman's certificate until the applicant has served as an apprentice under an apprentice certificate for one year and until the applicant presents to DPR certain documentary proof that the applicant operated an aircraft in pest control activities for a specified amount of time within the previous 2 years, as specified. (Food & Ag. Code § 11907.)

5) Vests, pursuant to federal law, the Federal Aviation Administration (FAA) with the authority to regulate airspace use, management and efficiency, air traffic control, safety, navigational facilities, and aircraft noise. (49 U.S.C. §§ 40103, 44502, and 44701-44735.)

6) Requires the FAA, under the FAA Modernization and Reform Act of 2012, to safely integrate UAS operation into the national airspace system and to develop and implement certification requirements for the operation of UAS in the national airspace system. (Public Law Number 112-095.)

7) Requires, under FAA rules, federal registration of a UAS before its first flight outdoors for any UAS weighing more than 0.55 pounds (250 grams) and less than 55 pounds (25 kilos). Upon registration, UAS owners receive a Certificate of Aircraft Registration/Proof of Ownership along with a unique identification number, which must be marked or affixed to the UAS. (14 CFR Parts 1, 45, 47, 48, 91, and 375.)

8) Permits commercial UAS flight over unpopulated areas if safety conditions are met, as specified. (14 CFR Part 107.)

FISCAL EFFECT: As currently in print this bill is keyed fiscal.

COMMENTS:

1) **Background.** Drones—termed "unmanned aircraft" and "unmanned aircraft systems" in the Government Code—are increasingly used by government, businesses, and private individuals for a variety of purposes, including in agriculture to track the growth of crops, fight pests, identify nutrient deficiencies, and in precision agriculture practices that use global positioning systems technology and geographic information system tools to allow fine scale monitoring and mapping of crops.

According to the FAA, in order to fly drones, a person must obtain a remote pilot certificate that demonstrates they understand the regulations, operating requirements, and procedures for safely flying drones. There are currently 338,614 commercial drones registered in the United States and 308,263 remote certified pilots. (https://www.faa.gov/uas.)

AB 527 (Caballero, Chap. 404, Stats. 2017) allowed commercial drone operations for the purpose of pesticide application for mosquito and vector control, provided the drone operator complies with FAA rules governing drone flight and the drone operator has approval from DPR. However, that legislation did not extend the use of UAS to aerial pesticide applications for agricultural fields. Under current law, only traditional, crewed airplanes can be used for agricultural aerial pesticide spraying.

2) **Author's statement.** According to the author:

> Agriculture plays a vital role in California's economy and the well-being of the state and nation. California alone produces nearly 13% of all agricultural production in the United States. Without farming, there would be no restaurants, no food manufacturing companies, no nutritionists, and ultimately no food on your table. Farmers do the hard work of producing the food that we need to feed those who contribute to society and the economy.
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> The implementation of technology and more specifically drones, for spot treatment in agricultural fields/farms will eliminate the need for whole-field aerial treatment with the use of pesticides. This mitigates unwanted spray drift experienced by neighboring communities and removes the barriers that small farms, nurseries, and vineyards experience with the loss of crops by allowing for more precise applications along agriculture borders.

3) **What this bill would do.** This bill allows DPR to create an alternative training program for UAS aerial pesticide applicator pilots in order to provide a streamlined process as an alternative to the existing process. The existing process requires a pilot to pass an FAA exam proving they can safely fly the drone, then requires them to train as an apprentice pilot under a journeyman drone pilot for 50 hours, before finally taking a DPR exam to become a licensed aerial pesticide applicator. Essentially, under this bill, the process is streamlined by allowing a drone pilot who has passed the FAA testing to begin training with DPR on aerial pesticide spraying, without needing to complete 50 hours of apprenticeship training first.

According to the sponsors, the California Farm Bureau:

> Because the drone pesticide application delivery platform is entirely different from a helicopter or airplane, fixed-winged pilots have different skills than drone pilots, and may lack the necessary FAA licenses and knowledge on how to pilot a drone. The impact of this regulatory misalignment results in a lack of precision agriculture technology being accessible

> for California's farmers. Seven licensed unmanned aerial applicator journeymen conduct business in California, compared to hundreds of licensed fixed-wing applicator journeymen. The disparity results in a lack of new drone pilots being trained for pesticide applications using precision technology. Simply, the existing pathway constricts the licensing of drone aerial applicator pilots, limiting the availability of precision technology for California's farmers. [. . .]
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> Instead of spraying an entire field with pesticides, drones permit for the spot treatment of just affected crops. For all pesticide applicators, drones remove workers from intimate contact with pesticides, replacing backpack blowers and ground based delivery systems with remote delivery systems. The technology helps farmers to become more efficient, and AB 1016 helps to ensure that the technology's use on farms for pesticide applications comes with regulatory controls in place to ensure worker and community safety.

This bill does not impact the requirement that prior to obtaining certification as a drone pest control operator, an individual must be authorized by the FAA to operate a drone approved by the FAA to spray aerial pesticides.

4) **Related legislation.** In this session, AB 740 (Gabriel) directs the California Department of Technology to issue regulations establishing cybersecurity and privacy requirements for data collected by drones operated by state and local government entities. That bill is currently pending in the Assembly Accountability and Administrative Review Committee.

AB 1689 (Fong, 2022) would have updated the licensing process for operators of Unmanned Aircraft Systems (drones) for pest control purposes, including agriculture pest control. The bill died in the Assembly Agriculture Committee.

AB 527 (Caballero, Chap. 404, Stats 2017) allowed commercial drone operations for the purposes of pesticide application for mosquito and vector control, provided that the drone operator complied with FAA rules governing drone flight and the drone operator had approval from DPR. This bill created a new pest control aircraft pilot certificate for drone operators, to be provided upon operators passing the exam.

REGISTERED SUPPORT / OPPOSITION:

Support

California Farm Bureau Federation

Opposition

None on file.

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