SJR-18 Small unmanned aircraft systems. (2015-2016)

Senate Joint Resolution No. 18

CHAPTER 43

Relative to small unmanned aircraft systems.

[Filed with Secretary of State May 20, 2016.]

LEGISLATIVE COUNSEL'S DIGEST

SJR 18, Wolk. Small unmanned aircraft systems.

This measure would request the President of the United States and the United States Secretary of Transportation to allow for the operation of small unmanned aircraft systems by farmers and rangeland managers pursuant to emergency rules adopted by the administration, as specified.

Fiscal Committee: no

WHEREAS, In the western United States, water is a vital and scarce resource, the availability of which has and continues to circumscribe growth, development, economic well-being, and environmental quality of life; and

WHEREAS, The wise use, conservation, development, and management of our water resources is critical to maintaining human life, health, safety, and property; and

WHEREAS, The western United States is currently experiencing serious drought conditions that are predicted to worsen; and

WHEREAS, Agricultural irrigation uses a significant amount of water, making the agricultural sector one of the most important sectors to examine when considering water conservation; and

WHEREAS, Even modest improvements in agricultural water use can result in significant amounts of water not being depleted regionwide, which can then be utilized elsewhere; and

WHEREAS, Precision agricultural management studies have shown that farmers can reduce the amount of water, fertilizer, and pesticide needed by their fields by utilizing high-resolution, high-quality remotely sensed imagery to guide their application efforts of water, fertilizer, and pesticide; and

WHEREAS, Small unmanned aircraft systems (sUAS) have the capability to quickly provide expansive, high-resolution, and high-quality remotely sensed imagery that can measure specific bands in the solar spectrum, such as the thermal infrared band, which allows farmers to better understand and manage their water use; and

WHEREAS, The Federal Aviation Administration (FAA) is currently in the process of adopting rules for the usage of sUAS in agricultural management; and

WHEREAS, Flights of sUAS, for the purposes of precision agricultural management, could occur safely at low altitudes, in rural areas removed from other air traffic and human populations, and in accordance with the FAA's proposed guidelines; and

WHEREAS, Small unmanned aircraft systems have been used in precision agricultural management in Japan for a decade, successfully optimizing and monitoring the management of 2.5 million acres of farmland, 40 percent of which are rice fields, without any significant reported incidents; and

WHEREAS, Several University of California campuses and the California State University system are developing precision agriculture applications with sUAS to help save water and improve crop and environmental monitoring. For example, the Mechatronics Embedded Systems and Automation Lab at the University of California, Merced, has developed numerous innovations for precision agricultural management with sUAS; and

WHEREAS, Flights of sUAS also have the capacity for detecting invasive plant species that deplete high amounts of water such as yellow star thistle, arundo, tamarisk, and cheatgrass, which serve no agricultural purpose and removal of which would help in water conservation efforts; and

WHEREAS, The use of sUAS is an emerging technology and has great promise for the development of models that forecast and predict economic impacts of droughts and meteorological phenomena; now, therefore, be it

Resolved by the Senate and the Assembly of the State of California, jointly, That, due to the severity of the drought gripping the western United States, the California Legislature respectfully requests the President of the United States and the United States Secretary of Transportation, more specifically the FAA, to allow for the operation of sUAS by farmers and rangeland managers pursuant to emergency rules adopted by the administration before the FAA rules for sUAS are finalized. The emergency rules should be based on the proposed FAA rules for sUAS that were released in February 2015 and that incorporate all of the following:

(a) That the emergency FAA rules for sUAS operation be applicable to counties located in the western portion of the United States that are projected to be in drought during the current growing season, as defined by the National Oceanic and Atmospheric Association's Seasonal Drought Outlook.

(b) That the emergency FAA rules for sUAS operation allow farmers to contract with sUAS flight service providers to execute missions on their behalf in the airspace overlying lands that they own or control under the proposed FAA rules for sUAS.

(c) That the emergency FAA rules for sUAS operations that allow universities and government agencies seeking to operate or procure providers for sUAS missions for drought-related research or precision management applications be given expedited approval.

(d) That the emergency FAA rules for sUAS operation also allow farmers and rangeland managers to use sUAS imagery to detect highly water-depletive invasive species on their land or public lands that they manage; and be it further

Resolved, That the Secretary of the Senate transmit copies of this resolution to the President and Vice President of the United States, the Speaker of the House of Representatives, the Majority Leader of the Senate, each Senator and Representative from California in the Congress of the United States, and the Federal Aviation Administration.