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March 31, 2015

Chairperson Caddy McKeown and  
House Transportation and Economic Development Committee  
Oregon State Capitol  
300 Court Street  
Salem OR 97301

Re: HB 3193

Dear Committee Members:

I am a licensed private pilot, built my own airplane from an RV-4 kit manufactured by Van's Aircraft of Aurora, Oregon, and hold an FAA repairman's certificate for that aircraft. I have been a member of the Experimental Aircraft Association since 1989.

I write in opposition to this bill. Steps are already being taken by the Federal Aviation Administration to phase out leaded avgas by developing a viable unleaded alternative. See the FAA's press release of September 8, 2014 attached hereto as Exhibit A. It is therefore not necessary to impose punitive taxes on Oregon fixed based operators and general aviation pilots whose aircraft require the use of leaded avgas.

In order to maximize the power to weight ratio of gasoline piston aircraft engines, many of them have high compression ratios. To prevent pre-ignition and damaging detonation (explosion of the fuel mixture before the piston reaches top dead center), they must use gasoline with a high octane rating. Detonation can lead to in flight engine failure, a safety risk.

To achieve the necessary high octane rating for high compression engines, Tetraethyl lead (TEL) is added to avgas. Due to advances in engine technology, the amount of lead added is much less than in the past, and current leaded avgas is referred to as 100 octane low lead, or 100LL. Some aircraft can operate on ethanol free unleaded autogas, but those certified in the normal category require a Supplemental Type Certificate from the FAA. Unfortunately, unleaded autogas without ethanol is not generally available. 100LL is also less susceptible to vapor lock than autogas, so many pilots who can find ethanol free autogas either mix it with 100LL, or use 100LL in one tank for take off and landing, and fill the other tank with the ethanol free autogas for use in the less critical phases of flight.

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The apparent purpose of HB 3193 is to decrease the use of 100LL by making it prohibitively expensive. However, without a readily available alternative fuel, prohibitively expensive 100LL necessarily makes flying prohibitively expensive. With a reduction in flight hours, fixed costs like hangar rental and insurance will not decrease, and some pilots will give up flying and sell their aircraft, further damaging the general aviation industry.

The FAA is already testing alternative fuels to replace 100LL. Its stated goal is to have an alternative fuel available by 2018. See Exhibit A attached hereto. The reason the FAA is testing the alternative fuels is to ensure that they will not have an adverse impact on existing aircraft engines, such as damaging fuel lines as automobile gas containing ethanol does.

HB 3193 will not have any impact on the development of an alternative fuel: that is already underway. All HB 3193 would do is decrease the amount of general aviation flight hours flown, discourage aircraft ownership, and damage the general aviation industry.

Elimination of leaded avgas is already being implemented by the FAA on a national basis. It is not necessary to punish Oregon's general aviation industry to eliminate the use of leaded avgas.

Yours truly,

A handwritten signature in black ink, appearing to read "J. Rion Bourgeois", is written over a horizontal dotted line. The signature is fluid and cursive.

J. Rion Bourgeois



**Federal Aviation  
Administration**

## **Press Release – FAA Selects Fuels for Testing to Get the Lead out of General Aviation Fuel**

### **For Immediate Release**

September 8, 2014

Contact: Alison Duquette

Phone: 202-267-3883

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WASHINGTON – The U.S. Department of Transportation’s Federal Aviation Administration (FAA) announced today it has selected four unleaded fuels for the first phase of testing at the FAA’s William J. Hughes Technical Center. The goal is for government and industry to work together to have a new unleaded fuel that reduces lead emissions for general aviation by 2018.

Shell and TOTAL, with one fuel each, and Swift Fuels, with two fuels, will now work with the FAA on phase-one testing, which will begin this fall and conclude in fall 2015.

“We’re committed to removing harmful lead from general aviation fuel,” said Transportation Secretary Anthony Foxx. “This work will benefit the environment and provide a safe and available fuel for our general aviation community.”

In July, fuel producers submitted their replacement fuel proposals to the FAA for further evaluation as part of the Piston Aviation Fuels Initiative (PAFI), an industry-government initiative designed to help the general aviation industry transition to an unleaded aviation gasoline. The FAA assessed candidate fuels in terms of their impact on the existing fleet, the production and distribution infrastructure, the impact on the environment, toxicology, and the cost of aircraft operations.

“The FAA looks forward to our continued work with fuel producers to make an unleaded aviation gasoline available for the general aviation fleet,” said FAA Administrator Michael Huerta.

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Based on the results of the phase-one laboratory and rig testing, the FAA anticipates that two or three fuels will be selected for phase-two engine and aircraft testing. That testing will generate standardized qualification and certification data for candidate fuels, along with property and performance data. That entire testing process is expected to conclude in 2018.

Approximately 167,000 general aviation aircraft in the United States rely on 100 low-lead aviation gasoline for safe operation. Low-lead is the only remaining transportation fuel in the United States that contains lead, which is considered a toxic substance. The small quantity of lead in the fuel creates the very high octane levels needed for high-performance aircraft. Most commercial airplanes do not use leaded gas.

PAFI is facilitating the development and deployment of a new unleaded aviation gasoline that will have the least impact on existing piston-engine aircraft. PAFI will play a key role in the testing and deployment of an unleaded fuel across the existing general aviation fleet. Congress authorized \$6 million for the fiscal year 2014 budget to support the PAFI test program at the FAA William J. Hughes Technical Center.

For more information go to <http://www.faa.gov/about/initiatives/avgas/>  
(<http://www.faa.gov/about/initiatives/avgas/>)

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