

**Before the House of Representatives
Committee on Oversight and Reform
Subcommittee on Environment**

Sworn Written Testimony for the Record of George W. Braly

July 28, 2022

My name is George Braly. I am the Head of Engineering for General Aviation Modifications, Inc. (GAMI).

I submit this written statement as my sworn testimony in this matter.

GAMI is a small high technology aerospace company located in Southeastern Oklahoma in the town of Ada. We have developed over a dozen different FAA approved modifications to the existing fleet of piston powered aircraft using the well-established FAA process known as “Supplemental Type Certificates” (STCs) or “Approved Model List” (AML) - - AML STCs.

I graduated with a degree in Aerospace Engineering from Brown University in 1970. At the age of 19, I became an FAA certified flight instructor. I have over 10,000 hours flying and instructing in general aviation aircraft that require the use of high-octane leaded gasoline - - known as 100 Low Lead (100LL).

First, a few words about general aviation and its role as a vital part of our nation’s infrastructure.

General Aviation aircraft, of the kind that require the use of high-octane leaded aviation gasoline, are essential to many aspects of our economy. Very few people outside of the active participants have any realistic comprehension of the essential function that portion of the aviation community plays in our society. As one easy example, if it were not for general aviation, the airlines would, in a matter of two to five years, have to ground their aircraft for lack of trained pilots! General aviation pilots by the thousands routinely volunteer (at their personal expense) to conduct “Angel Flights” to assist chronically ill children and adults to travel “point-to-point” over long distances to obtain essential medical care. Often, there is no other practical means to transport those patients, given the current chaos that often exists with canceled and delayed airline flights. Moreover, general aviation facilitates safe, economic, and expeditious movement of the owners and employees of our country’s innovative small- and medium-size businesses that are essential to our economy to greatly increase their efficiency.

Beginning in 1989, the general aviation industry and the FAA began to conduct R & D to try to find a replacement for 100LL in order to mitigate the atmospheric lead pollution associated with the use of that last remaining transportation gasoline that requires the use of tetra ethyl lead (TEL) to protect the high-performance engines from self-destruction.

Twenty years later, the industry and the FAA had failed to find a solution.

The FAA and industry then started a new R & D program in 2012. That program, known as “PAFI”, was ill-conceived, and ended up an utter and expensive failure in 2020. Our company elected not to participate in that program.

Our little company has considerable experience conducting aircraft piston engine testing for FAA projects using our in-house state-of-the-art aircraft engine test stand. In October of 2009, we began research to identify and certify through the FAA a fully “drop-in” replacement (meaning no changes to the aircraft or engine are required) high octane aviation gasoline for the widely used 100LL. As a matter of course we opened an AML STC project with the FAA for a new high-octane unleaded fuel chemistry we developed, now known as G100UL™ Avgas. Various delays and diversions within the FAA certification offices caused the project to drag on for more than a decade! Very likely, there was malicious interference in our project by at least one major producer of 100LL avgas to try to delay or frustrate our certification activities with the FAA.

After one of the most extensive testing and certification programs in the history of the FAA’s Wichita Aircraft Certification Office (ACO), in early March of this year, that FAA branch office advised our company that we had successfully completed all of the required certification testing and met all of the regulatory requirements to approve an AML STC that provides an approval for the use of G100UL high octane avgas as a complete drop-in replacement for the existing 100LL Avgas.

So, what is the problem?

The Wichita ACO further advised that they were only waiting on “FAA HQ” (FAA Head Quarters) to give the manager of the Wichita ACO permission to sign and deliver the AML STCs to GAMI.

After five additional months of continuous delays, broken promises from FAA Headquarters, and the FAA’s ongoing failure to comply with its own regulations (14 CFR § 21.21, which requires the FAA to deliver the STCs after the showing of compliance) and §565(c) of the 2018 FAA Congressional Reauthorization Act (which mandates the FAA to approve the STCs after the showing of compliance which is now complete), we still do not have signatures on the two critical AML STCs **which effectively resolve the three decades old environmental atmospheric emissions problem with toxic lead in the atmosphere from general aviation aircraft.**

Further, we have been unable to obtain a commitment from the FAA as to a date-certain by which the FAA will comply with 14 CFR§ 21.21 and §565(c) and sign the pending AML STCs for the high octane unleaded G100UL to be used as a drop-in replacement for 100LL.

The FAA has recently had a major “turn-over” at the senior management level in FAA Aircraft Certification offices. That includes the functional positions known as AIR-1 and AIR-700. We are cautiously hopeful that the new AIR-1 (Ms. Lirio Liu) will promptly take the urgently required corrective action and send a simple email to the manager of the Wichita Aircraft

Certification Office and authorize that FAA branch office to sign and deliver the two completed AML STCs.

The following is critically important for you to understand:

If those two AML STCs had been signed and delivered to GAMI in early March, as the law requires, then it is likely that by early September of this year, GAMI would have, through its refining industry associates, been able to begin routine deliveries of railcar loads of high octane G100UL avgas to the critical airports in California - - thus solving the crisis that now exists at those airports in California.

Candidly, I am unable to identify any legally justifiable reason to explain the FAA's refusal to comply with their own regulations and the 2018 Congressional mandate.

Mister Chairperson and members of this subcommittee, your focused interest in this important environmental matter is greatly appreciated!

Please allow me to answer your questions.



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