

## Update on National & Local Transition to Unleaded Aviation Gasoline (“Avgas”)

### **General Overview**

The general aviation industry, including airports across the nation are committed to eliminating lead from Avgas prior to the Federal Government’s legislative mandate of January 1, 2031. The transition away from lead must be done in a safe and reliable way without jeopardizing the operational safety of piston powered aircraft. As passed into law through SB 1193, California’s ban on leaded Avgas has the same deadline of January 1, 2031. The Federal ban on lead in Avgas was promulgated through the Federal Aviation Administration’s (FAA) 2024 Reauthorization Bill, that also created the requirement for general aviation airports like Buchanan Field and Byron Airport to continue to provide 100 low-lead (100LL) until the 2031 deadline, or when a certified unleaded alternative is available at airports. Discontinuing the sale of 100LL prior to either one of those milestones would be a violation of Contra Costa County’s FAA Grant Assurances.

Over the last six to nine months, the developments and progress towards an unleaded Avgas future has unfolded at a rapid rate. While an unleaded option (Swift UL94) has been in the marketplace for the last couple of years, it does not eliminate the use of leaded fuel because it can only be used in approximately 68% of all piston powered aircraft. UL94 has an octane rating of 94, six points lower than the needed 100 octane to run in all aircraft. Lead is the additive in gasoline used to achieve the higher octane. To that end, the challenge remains bringing a safe, widely accepted, and commercially viable 100 octane fuel to all airports.

Currently, there are three companies (GAMI, Swift, and LyondellBasell/VP Racing) leading the way in bringing an unleaded alternative to market, with each company taking a different path to achieve regulatory approval, as well as industry and aircraft owner/user acceptance. Within the last couple of months, GAMI achieved its first sales at Santa Clara County’s Reid Hillview Airport, and subsequently started selling at the Watsonville airport. Swift fuels’ 100R product has limited approval for certain Cessna aircraft models and is being used at a flight school at the San Carlos airport. The most notable difference between the three current developers/producers of unleaded Avgas is that Swift and LyondellBasell/VP Racing are going through an industry consensus production specification process through an ASTM (American Society for Testing and Materials) International procedure, whereas GAMI has said it will not subject its fuel (G100UL) to an ASTM process. From a risk and liability perspective, there are industry concerns related to airframe and engine warranties, as well as those involved in fuel supply chain, given GAMI’s lack of ASTM testing.

The transition to unleaded Avgas requires more than FAA regulatory approval, it’s going to need acceptance from aircraft owners, fuel distributors, Fixed Base Operators (FBO), and local governmental entities who must perform their own risk analyses.

### **Next Steps**

The Contra Costa County Airports Division will continue to work towards bringing unleaded fuel to both of its airports. The County owned and operated fuel concession at Byron consists of only one fuel tank. Thus, a transition to UL94 prior to the delivery of a drop-in replacement would have to include a tank infrastructure plan and an associated capital project for an additional tank.

At Buchanan Field the transition is being done in partnership with the FBO that dispenses Avgas, Pacific States Aviation (PSA) who will begin with Swift's UL94 product prior to the arrival of a 100-octane drop-in replacement. County staff is conducting regular meetings with PSA and Swift Fuel representatives to plan transition logistics, funding, and pilot/end user outreach. While the date of an unleaded fuel option (UL 94) at Buchanan Field in calendar year 2025 has not yet been determined, staff will update its website and issue a press release as soon as a delivery date is available.