

FEATURED Partner:

The Increasingly Positive Outlook for Avgas

By Michael J. Kraft



Lycoming started 2010 with the objective of raising awareness of the issues surrounding a transition from 100LL to an unleaded alternate. As 2010 rolled out through Aero Friedrichshafen, Sun 'n Fun, EAA AirVenture, and the AOPA Summit, there developed a sense that this issue may not have a happy ending.

The fact is, as we start 2011, there is ample evidence that the industry is putting the pieces of the solution in place.

The Leadership Piece: FAA Establishes the Avgas ARC

Responding to input from user groups and the GA Avgas Coalition, the FAA has established an Aviation Rulemaking Committee (ARC) to advise the agency on the move toward an unleaded fuel. The ARC will be a joint government/industry committee tasked with identifying key issues relating to, and providing recommendations for, the development and deployment of an unleaded avgas. Because the FAA ultimately must develop policy that allows us to transition the fleet en masse from 100LL to its unleaded

equivalent, its leadership is absolutely critical to a successful resolution. This is a very big step forward, and Lycoming supports it wholeheartedly.

The Development Piece: In August, the FAA issued its report on the durability testing of a Lycoming IO-540-K, an engine designed to the limit of 100LL anti-knock properties, using Swift Fuel. In brief, the results were quite positive – not entirely perfect - but very close and in no way indicating an engineering dead end requiring a new “recipe” for the fuel. Swift had already met the anti-knock margins required by the IO-540-K test standard

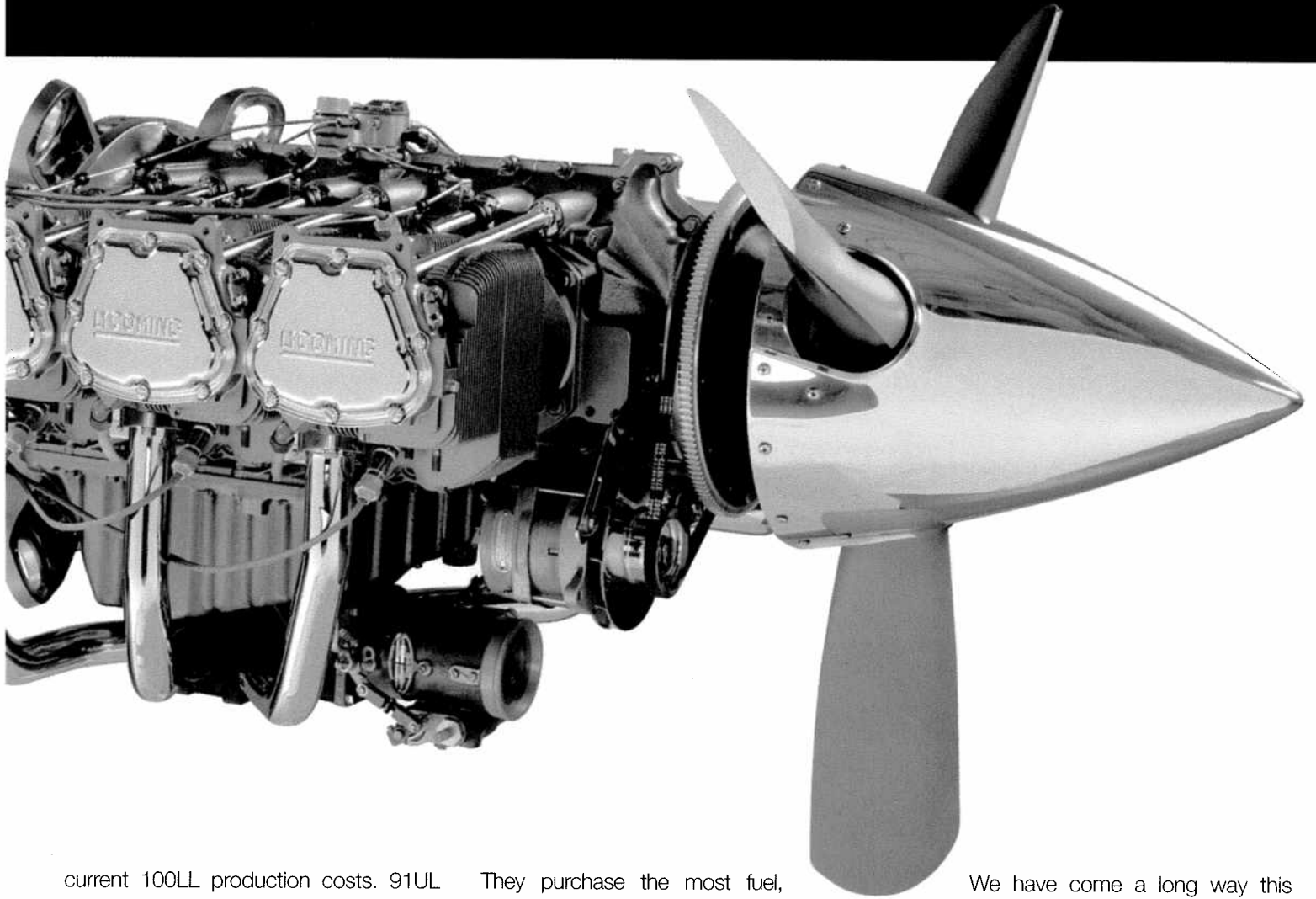
and this testing provides good news on the overall suitability of the Swift solution. GAMI continues to make progress on both the test stand and in flight using its unleaded aviation fuel – G100UL. GAMI’s approach to its fuel is different than Swift’s, proving that there will be at least two ways to “skin the cat” in finding a 100LL unleaded replacement.

The “Can I Afford It?” Piece: Unleaded Avgas Production Cost

Based on the data that has been presented to Lycoming, both Swift and GAMI fuels can be well within range of



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current 100LL production costs. 91UL would cost about the same as 100LL. 94UL would cost more than 100LL. In the end, the unleaded replacement fuel price to the end user will be set by demand and taxes.

The Demand Piece: What You Can Do to Help

Many aircraft today don't need 100 octane fuel to fly. However, if aircraft owners who do not need 100 ignore or counter the demand call, everyone will face higher prices (even for "low-cost" mogas). Here's why: The aircraft owners who need 100 drive the general aviation economy.

They purchase the most fuel, components and services. If demand for 100 octane shrinks, we will default to an equally costly lower octane solution or an even more expensive dual-fuel solution. With decreased volumes of 100 octane fuel – or worse, none at all – workhorse piston aircraft may exit the industry altogether. The entire support infrastructure will suffer.

Our advice is to get active in the demand for a 100 octane solution. Even if your particular aircraft might not have a technical need for 100, the aviation infrastructure does.

We have come a long way this year. Work remains to be done, but this problem is not too complex to solve. Your aviation investment will survive the transition to an unleaded 100LL equivalent fuel if you establish the demand.

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