

CASCADE FLYER



Website: <http://co-opa.com/>

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President's Message:

A complete and ready to fly new two place airplane for \$60k with no hidden charges? You might suspect that I dropped off a zero, or am talking about a paper airplane, but no. The plane is real and Matt Verdieck taxied it to our last meeting. Matt briefed us on the X-Air LSA assembled right here at KBDN from an Indian kit with an Australian engine. We also got a rundown on his experiences this year at Oshkosh.

Many thanks to Matt from dropping by and sharing. If you want to learn more about this amazing plane, checkout www.x-airlsa.com.

With Fall about ready to peek out our thoughts will soon return to weather and what better way to refresh the subject than with KOHD Chief Meteorologist and COCC Instructor Adam Clark. I hope he knows what he is in for by presenting himself to our peanut gallery. Past meetings with weathermen have been boisterous and I expect this one to also be a big hit!

Pilots and friends will start to gather around 6pm for stories about the recent Cascade Airshow and the OPA annual meeting. Long before everyone is talked out our potluck will start 6:30pm and the always engaging formal program at 7pm.

Calendar:

17 September - Monthly Meeting
19 September - Monthly Flyout
26 September - "I Heart Bend" Airport Cleanup
15 October - Monthly Meeting
17 October - Monthly Flyout
19 November - Monthly Meeting
21 November - Monthly Flyout
17 December - Monthly Meeting/Party
19 November - Monthly Flyout

Web doings:

As always you can check out current and past newsletters as well as hot aviation links on our website at <http://co-aop.com>

To access the members only areas the username is "BDN" and the password is "123.0".

My Inbox:

Believe it or not, the CO-OPA is not the only pilot's organization in the area. We also have a wing of the Civil Air Patrol (CAP) here. Alan Sandner has asked me to inform our membership that they meet on the third Tuesday at 7pm in Marshall High School. Most of meetings are for refresher training so they should be of interest to all pilots.

You can find out more on their website: <http://www.centraloregoncap.org>, or contact Al at: asand@bendbroadband.com.

On 26 Sep from 10am to 2pm the "I Heart Bend" program will conduct a city wide volunteer cleanup. Gary Judd, KBDN Airport Manager, and Cheryl Howard, in charge of the program, have identified a few untidy areas on the airport that can use some love. The areas that need attention are the frontage road, in between hangars and around the taxi lane median.

You can find out more about the program, and sign up online to help, at their web site: <http://iheartbend.org>.

Random Thoughts:

How did pilots ever live without cell phones or the Internet? I vaguely remember that I must have done so. Even in such an isolated place like Idaho's Johnson Creek Airport (3U2) which is 60 miles from the nearest paved road and so isolated that Verizon never heard of the place there is free Wifi.

There is so much information on the internet that a pilot could spend all week trying to comply with FAR 91.103 which says:

Each pilot in command shall, before beginning a flight, become familiar with all available information concerning that flight. This information must include:-

(a) For a flight under IFR or a flight not in the vicinity of an airport, weather reports and forecasts, fuel requirements, alternatives available if the planned flight cannot be completed, and any known traffic delays of which the pilot in command has been advised by ATC;

(b) For any flight, runway lengths at airports of intended use, and the following takeoff and landing distance information:

(1) For civil aircraft for which an approved Airplane or Rotorcraft Flight Manual containing takeoff and landing distance data is required, the takeoff and landing distance data contained therein; and

(2) For civil aircraft other than those specified in paragraph (b)(1) of this section, other reliable information appropriate to the aircraft, relating to aircraft performance under expected values of airport elevation and runway slope, aircraft gross weight, and wind and temperature.

Who are they kidding with 'all available information' in the information age? Still there is a lot there that you need to know for practical purposes and it boils down to three general areas: information on the airports, airways and terrain along your route of flight, current and forecast weather along your route of flight, and finally the expected performance of your aircraft given the first two areas.

In the distant past, and on your check rides, this required you to check your charts and facilities directory, make a phone call for a weather briefing, then use your POH and E3B manually compute your aircraft performance.

With the internet age we could replace most of that effort by checking the airport data and compute fuel requirements at www.airnav.com then get an online DUATS briefing. Easy if you have access to a computer and an Internet connection, but pretty hard to do if you are standing on the ramp,

Now with a smartphone (and a cell signal) all that is in the palm of my hand. And it gets better ever day. I just downloaded a new program for my phone called FlightBriefer. In one place it gives me access to METARs, TAFs, PIREPs and even a full DUATS briefing complete with full color charts. Just like getting an in-person briefing at a FSS. Anyone remember the last time they visited an FSS?

No more trying to get a briefer that has never been to Oregon to describe the last WX radar image to you over the phone, just pull it up in full color on your phone and zoom in to your areas of interest. A picture is still worth a thousands words.

With a full picture of the weather I can complete my personal briefing by checking out the sunrise/sunset and airport data on www.airnav.com, compute my airplane performance on my phones electronic E3B and W/B calculator and I am ready to fly. All done while standing on the ramp. How can people still run out of gas or get caught in weather with such great tools?



Why we did NOT fly to San Carlos last week

Madras Air Show

Didn't see too many Bendites so, for those who missed this Aug 21-22 event, here are a few of the more unusual sightings:



The WAAM (Hood River) L3 and L4 contingent



Long lines for B-17G 'Sentimental Journey'

His and hers?



The ceiling of the BIG hangar ... don't know the story but there must be one

And now for some of the aerobatic participants:



Fouga Magister, a French jet trainer

Looks like a chase



Too slow to catch the flame but felt the heat!



***and finally, The Rob Berg Madras shuttle .. or ..
'The Airport Manager's job is never done'.***

Flying a real, renewable fuel

By Dave Hirschman, AOPA

For more than five years, Swift Enterprises, a small start-up firm founded by Purdue University Professor John Rusek and largely staffed by grads, has been designing and producing a form of sorghum-derived renewable fuel, meant as an unleaded replacement for 100LL. Independent laboratories including the FAA's fuel and engine center have tested Swift fuel and determined it performs as well as—and, in some areas, better than—100LL, in a variety of piston aircraft engines. Instead of the familiar smell of leaded avgas, this stuff carried the odor of a dank locker room, or a musty basement and was clear, not the familiar blue color of avgas.

The RV-3 engine start and run-up were completely normal. There's no special technique for starting an aircraft with the new fuel, and the pre-takeoff procedures were the same as ever.

Acceleration on takeoff was as brisk as usual, and the rate of climb was a typically robust 1,500 fpm at 110 KIAS—even though the 20 gallons of Swift fuel added about 10 pounds compared to the six-pound-per-gallon weight of regular avgas. (Swift fuel weighs about 6.5 pounds per gallon.)

This RV-3 has single-point EGT and CHT probes, and the EGT consistently read about 75 degrees F higher than normal in cruise, while the CHT was 25 degrees F lower than normal. Swift officials attribute the differences to their fuel's higher octane rating (about 104), which causes Swift fuel to burn slower and later in the combustion process.

Leveled off at 7,500 feet in cruise (20 inches manifold pressure, 2,450 rpm, 65 degrees OAT). Enriching the mixture slightly more than usual kept the EGT at 1,400

degrees F or below. The CHT was 325 degrees F, and fuel burn on the 90-minute flight averaged 8.5 gph.

Swift fuel is designed to mix seamlessly with avgas, so I stopped about halfway home in Mansfield, Ohio, to blend the two. With slightly more avgas than Swift fuel in the 24-gallon tank, the hot start procedure was identical to avgas. Acceleration and climb performance were unchanged.

In cruise at 9,500 feet (19 inches manifold pressure, 2,450 rpm, 60 degrees OAT), I leaned the mixture a bit more aggressively to keep the EGT at 1,400 F or below. The CHT climbed to 340 degrees, and fuel burn on the second 90-minute flight averaged 8.2 gph.

The spark plugs in the RV-3 had been cleaned and gapped just before the flight with Swift fuel. After three hours of flying, they appeared totally unaffected.

Swift intends to collect vast amounts of such data in future tests. The company also has acquired a twin-engine aircraft with two engine monitors and plans to fly with 100LL feeding one engine and its own fuel supplying the other.

The company is seeking to show that its fuel meets 100LL performance standards and can safely replace avgas throughout the GA fleet. Swift officials estimate the process of defining, revising, and meeting those specifications with its unleaded fuel will take up to four years. In the meantime, Swift is exploring partnerships with a variety of energy firms capable of manufacturing its product. The manufacturing process, company officials say, is far simpler than refining oil and can be done just about anywhere in the world. Sorghum, switch grass, garbage, or petroleum can be used as raw materials and distilled into the chemicals used in Swift fuel.

Swift has a pilot manufacturing plant in Indiana capable of producing about 200 gallons of its fuel a day, and company officials say they are convinced it can be manufactured in industrial quantities at a cost well below leaded avgas.

Giving Swift fuel its own color is a simple matter of adding dye, but the locker-room smell is going to stay.

It's one thing to read lab or news reports on the merits of renewable fuels—but it's especially exciting to put such a fuel in an airplane and fly it on a real cross-country trip. Swift fuel has made the leap from the purely theoretical to a real product, and it appears to hold great promise for shifting GA to an unleaded, non-petroleum-based future.

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