EAA Mount Rainier Chapter 326 Newsletter

Thun Field - July 2006 91

Meeting Notice

Tuesday, July 11th, 7 PM
CAP Building, Thun Field

Program: Engine Failure Emergency Procedures. Jim Triggs
Titan T-51 Show & Tell. Smitty

Refreshments: Volunteer needed.

From the Secretary

June 11th 2006 – EAA Chapter 326

Program was a Blue Angles DVD & project visits to Paul's RV9A, Robert's RV8, and Harry's Rocket

The meeting was called to order by Gordy

Visitors
Mel Colbin - Pietenpol air camper - Visiting from Chapter 328 in Lewiston

Pat Brick had surgery recently and is doing well. She said thanks to the chapter for the card and plant.

Young Eagles day was a success. Thanks to everyone that participated in the program this year. 180+ kids flown this year. The sign by the road was a big help with many people reporting that they saw it and called. We continued to have problems with the newspaper media on getting a good add run.

Skinner reported on Ultralight flying magazine that has lots of Sport Pilot information in it.

Jim Triggs is working up a presentation on RV flight characteristics and accidents based on a review of RV accident data. Time and schedule TBD later in the summer.

Topics will include:

- Low energy takeoff
- Engine failure on takeoff
- No engine landings
- Spins
- Low energy landings
- High sink rate landings

Andy

Arlington Camping
July 5 - 9

We will be camped further away from the flightline this year. The Chapter site, AF7, is on the second row above the paved walkway in front of the hamburger stands, a little closer to the forum / vendor area this year.

Pot luck will be after the airshow on Saturday. This is for all our members whether camping with us or not. The Chapter will provide hamburgers and soft drinks. Bring whatever favorite dish you like.

Airport Design Criteria Should be Tailored to Type of Aircraft, AOPA tells FAA

What do a Cessna 172 and a Boeing 747 have in common? Not much, other than they both have wings and fly. And that's why AOPA is urging the FAA not to apply commercial airport standards to small general aviation airports that want to offer WAAS (Wide Area Augmentation System) instrument approaches.

"While the FAA is updating its *Airport Design Handbook*, the agency needs to find a way to tailor its design criteria for GA airports to the type of aircraft, which have smaller wingspans and slower approach and landing speeds, that operate there," said Andy Cebula, AOPA executive vice president of government affairs. "Right now, a 2,900-foot runway would have to meet some of the same criteria as a commercial runway to offer a precision approach like WAAS, and that's just not feasible."

Satellite-based WAAS has the ability to offer virtually the same approach minima as an ILS — 200 feet and one-half-mile visibility — without all of the ground-based navigation equipment and cost. The FAA is rolling WAAS out all across the country, but it is difficult for small GA airports to upgrade.

Currently, in order to offer WAAS, an airport must have much of the ground infrastructure, like approach lights, precision runway markings, and a parallel taxiway, that an ILS requires.

As expensive as those changes would be, the most expensive investment would be purchasing tens of acres of land at the end of a runway to clear potential obstacles. A safe approach to the runway is needed, but AOPA says it should be sized appropriately.

"Many small GA airports that would benefit from WAAS can't afford to create the required huge runway clear zones designed for commercial airports," Cebula said. "And that is just one example of a design standard that can be tailored to the type of aircraft that fly at these kinds of airports.

"The success of WAAS and satellite navigation depends largely on the FAA's ability to better match up design criteria with the aircraft at a particular airport."

What Drives 100LL Avgas Prices?

One of the most common questions received at AOPA from our members concerns the price of 100LL aviation gasoline (avgas) as it compares to the price of automotive gasoline or jet fuel. Most often, questions arise when the price of automotive gasoline drops significantly at the corner gas station while there is no appreciable change in the price of aviation gasoline at the airport. Answering these questions can be difficult because there are a number of factors that make aviation gasoline very different from other aviation or automotive fuels in terms of production, distribution, and cost. These differences make any direct price comparisons between the various types of aviation and automotive fuels difficult. In an effort to address some of these common concerns of our membership, AOPA has compiled some information concerning the production, distribution, and sale of 100LL avgas, automotive gasoline, and jet fuel. The following offers a brief explanation of some of the factors that determine the price a pilot pays for 100LL avgas.

The most important consideration in any discussion on the price of aviation gasoline is to recognize that 100LL avgas is very much a specialty fuel. Less than 400 million gallons of 100LL are produced annually, accounting for less than 0.5% of all transportation fuels. This low level of production is distributed between roughly a half dozen petroleum producers, each with a small share of the total production. Jet fuel and automotive gasoline, on the other hand, are produced in massive quantities by a large number of producers and refineries. This tends to make automobile and jet fuel more of a commodity, and as such, these products can exhibit significant price fluctuations. The limited quantities of avgas, on the other hand, make it a specialty product resulting in a more stable pricing structure.

Because of the very small quantities of aviation gasoline consumed, it is not uncommon for a refinery to produce aviation gasoline only a few days out of a year, then convert to production of other petroleum products for the balance of the time. This means that avgas is often stored for long periods of time until such time as it is needed for distribution to depots and airports. This long-term storage means that avgas is not subject to the frequent market fluctuations in oil prices and availability. Automotive gasoline and jet fuels are consumed nearly as fast as they are produced, resulting in a continuous turnover in inventory. Because of this constant turnover, the prices of these fuels closely reflect the price of the base crude oil they are made from. This is in part why automotive gasoline prices can fluctuate up and down on nearly a daily basis while aviation gasoline prices remain largely static.

In addition to production and consumption issues, the price of aviation gasoline is not as directly tied to crude oil prices because of the processes utilized in its production. Unlike jet fuel and automotive gasoline, which are largely straight distillates of crude oil, 100LL avgas is made up of manufactured (synthetic) chemicals such as aviation alkylate and toluene. Jet fuel and automotive gasoline require relatively little processing to reach a marketable product. Consequently, the prices of jet fuel and automotive gasoline are primarily dependent upon crude oil prices, and will tend to mirror fluctuations in market prices. Although avgas is a petroleum product, the production costs associated with synthetic compounds such as aviation alkylate and toluene contribute more to the price of the finished product than does the market price of crude oil. In other words, the price of avgas is directly dependent upon the cost of the production process rather than the price of a barrel of crude oil. This further explains why 100LL avgas prices remain relatively constant rather than following price and availability fluctuations in the oil marketplace.

Although 100LL avgas is produced in relatively small quantities and requires a specialized production process, there are still a relatively large number of distribution and sales points covering the same geographic region as any other type of fuel. The need to distribute comparatively small quantities of avgas over a very broad area adds significantly to the cost of the final product. Most importantly, leaded aviation gasoline cannot be commingled with unleaded petroleum products such as automotive gasoline. A dedicated distribution system used only for 100LL avgas is required. Given that this distribution system must serve a large number of airports covering a vast geographic area in very small quantities, it is little wonder that the fuel tends to be more expensive.

The primary points of sale for aviation gasoline are fixed base operators (FBOs) who derive a substantial portion of their revenue from fuel sales. This, of course, leads to considerable markup by the FBO in order to generate enough revenue to subsidize other services provided such as maintenance, aircraft rental, flight training, and other services to based and transient aircraft. Although these services are valuable to the FBO and its customers, they often do not generate sufficient revenue to be self-sustaining. Without the income provided by fuel sales, many FBOs simply could not offset their other operating expenses. Fixed base operators are an important part of the general aviation infrastructure and without them, there would likely be no general aviation.

Federal and state fuel taxes contribute significantly to the price per gallon of aviation fuel. As of this writing, the federal excise tax is $0.15 per gallon for aviation gasoline, and $0.175 per gallon for jet fuel. Additionally, most individual states impose excise taxes on aviation fuel. The actual tax rate varies greatly from state to state. In those states levying taxes on aviation fuels, the rates can be as low as $0.05 per gallon to as high as $0.55 per gallon for avgas. Whatever the rate, it's important to remember that these fuel taxes make up general aviation's contribution to the federal and state aviation trust funds. These aviation trust funds pay for the bulk of the infrastructure general aviation depends on such as airports and airway facilities. Without these fuel taxes, our contribution to the aviation trust fund would likely come from other sources such as passenger facility charges, landing and access fees, or other user fees.

Lastly, federal and state occupational safety and health regulations are making the handling of products containing tetra ethyl lead and other leaded products increasingly difficult and expensive. These requirements, combined with increasing environmental pressure to remove lead entirely from the environment, conspire to increase aviation gasoline prices and reduce availability. Ultimately, leaded aviation gasoline will have to be replaced with an unleaded fuel. AOPA has supported

research and development efforts to address this need for more than a decade and work continues in this area. However, today there is still no technologically feasible and economically viable replacement for 100LL aviation gasoline that can satisfy the majority of the existing fleet of aircraft.

In summary, the relatively high price of avgas depends on many factors. The small quantities in which it is produced, the specialized procedures and synthetic chemicals required for its production, and its unique and dedicated distribution system make avgas a specialized product that commands a high market price. Furthermore, FBO markup and profit coupled with federal and state fuel taxes add to the final cost. While there is little that AOPA can do to influence the localized price of aviation gasoline, we will continue to work to ensure that avgas remains available at the most reasonable price possible. Furthermore, the Association continues to champion the fact that general aviation remains safe and affordable for all pilots by fighting the continuing threat posed by user fees.

Wicks West Grand Opening at NWEAA-Arlington

Wicks Aircraft Supply will celebrate the grand opening of its new West Coast Facility during the annual Northwest EAA Fly-In, July 5-9, in Arlington, Washington. Wicks-West Coast is located at the Arlington Sport Aviation Park.

"Arlington is a very active aviation community, not just during the fly-in, but all year round," said Scott Wick, vice president. "Our commitment to serving the growing sport pilot industry makes this a perfect place for our west coast expansion." Wicks West Aircraft Supply will be open during the fly-in and invites all attendees to come by for coffee and a free gift. All orders placed during the fly-in will receive a discount and free shipping. For more information visit www.wicksaircraft.com.

Lopresti Fury

There was a recent article in the Manitowoc Wisconsin newspaper about Lopresti looking for a manufacturing site there, employing 300 people…maybe.

“An official of LoPresti Aviation said Wednesday no final location has been chosen to produce the company's "Fury," a two-seat, single-engine sport plane projected to cost about $295,000, but Manitowoc remains under consideration.

"We're looking for a home for the manufacturing plant, bringing 300 jobs over the course of two years," said Todd Lohenry, business development manager for the company based in Vero Beach, Fla.

Lohenry said the company hopes to make an announcement of the community chosen for the manufacturing facility during the EAA AirVenture at the end of July.”

Max speed (Lycoming IO360)	**222 MPH**
Cruise speed	**215 MPH**
Stall Speed (flaps)	**54 MPH**
Fuel Burn 75%	**10.5 GPH**
Range (with 45 minute reserve)	**1000 SM**
Rate of climb (at sea level)	**1350 FPM**
Service Ceiling	**21,000 FT**
Design Gross Weight	**2300 LBS**
Empty Weight	**1450 LBS**
Useful Load	**850 LBS**
Engine	**Lycoming IO 360A1B6**
Horsepower	**200 HP**
Wing Loading	**16.6 LB/SQ FT**
Fuel Capacity (Useable Fuel)	**60 GAL**
Wing Area	**138.6 SQ FT**
Wing Span	**29.3 FT**
Cabin Width	**44 IN**
Cabin Height	**45 IN**
Wheel Base	**12 FT 5 IN**
Baggage Capacity	**200 LBS**

Calendar

July 5–9, Arlington, 35th Annual Northwest EAA Fly-In.

July 22, Concrete (3W5) Fly-In [Date change…formerly May]

July 24–30, EAA AirVenture, Oshkosh (OSH)

July 29, Forks WA Fly-in and car show, Salmon bake

Aug 3-6, East Sound Orcas flyin, (Spaghetti Fri. PM), (Pancake Breakfast Sat AM), (Steak Fry Sat PM) camping

Aug 10-13, Hoquiam Fly-in, Ercoupe, Short and Long Wing Piper Gathering, and RV Rendezvous camping hopefully!

August 18-20, McMinnville Annual fly-In. (MMV)

September 2, 3, Van’s Homecoming. Aurora State (UAO)

September 13-17, Reno Air Races

October 26-29, Copperstate Fly-In, Casa Grande, AZ (KCGZ)

The AP and UPI reported that the French Government announced after the London bombings that it has raised its terror alert level from Run to Hide. The only two higher levels in France are Surrender and Collaborate. The rise in the alert level was precipitated by a recent fire which destroyed France 's white flag factory, effectively disabling their military.

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