

The Fly - By Date Dec, 2008



The President's Corner

PRESIDENTS CORNER

I was reading an article about flying in Alaska in which ADS-B was referenced. I wanted to know more about this and found it so interesting that I want to share it with you. I do not presume that I am the only one to know about it, however, it is possible that some of you may be as little informed as I was.

Alaska does not have the same radar coverage or access to navigational and weather information as we have here in the St. Louis area.

WHY DO WE CAR? Well first let me say that the article I read relates how weather in Alaska is ALWAYS a challenge with cloud cover much of the year that is not friendly to light airplanes because of the high probability of icing conditions as well as low ceiling and visibility limitations.

After research and development, and use by GA pilots in Alaska and air transport carriers in the Ohio River Valley, (that is sort of our area here in the mid-west) the FAA determined in 2005 that ADS-B is ready for use throughout the national airspace system.

What is ADS-B? Automatic Dependent Surveillance-Broadcast (ADS-B).

An ADS-B equipped aircraft determines its own position using a [global navigation satellite system](#) and periodically broadcasts this position and **other relevant information** to ground stations and other aircraft with ADS-B equipment. This is **REAL TIME** information being shared with all interested parties. Example: A plane 30 minutes ahead of you is relating air traffic and weather in your intended flight path.

With ADS-B, both pilots and controllers will see radar-like displays with highly accurate traffic data from satellites – displays that update in real time and don't degrade with distance or terrain. The system will also give pilots access to weather services, terrain maps and flight information services. The improved situational awareness will mean that we pilots will be able to fly at safe distances from one another with less assistance from air traffic controllers.

AGAIN: What has this to do with us in the Light Sport - Ultra-Light aircraft arena? !!

For those that equip their aircraft with ADS-B they gain a complete visual picture of everything around them. This includes, but is not limited to: terrain, weather and other aircraft in their immediate area. That means, for us without such equipment, those that do will be able to see us and either communicate with or avoid us. Sort of like someone else in the sky with us watching and trying to keep us from running into one another or hurting ourselves.

Guardian Angel anyone? !!

HEY!! That's a good thing, RIGHT? !!

The gains in safety, capacity, and efficiency in the airspace use, as a result of moving to a satellite-based system will enable the FAA to meet the tremendous growth in air traffic predicted in coming decades.

ADS-B Benefits

- Provides air-to-air surveillance capability.
- Provides surveillance to remote or inhospitable areas that do not currently have coverage with radar.
- Provides real-time traffic and aeronautical information in the cockpit.
- Allows for reduced separation and greater predictability in departure and arrival times.
- Supports common separation standards, both horizontal and vertical, for all classes of airspace.
- Improves ability of airlines to manage traffic and aircraft fleets.
- Improves ability of air traffic controllers to plan arrivals and departures far in advance.
- Reduces the cost of the infrastructure needed to operate the National Airspace System.

Just thought you might find this encouraging and informative, knowing what is in store for us living long enough to enjoy it. I am.

Minutes

Call to order 7:40

Old Business

New Business

Keith Smith gave presentation on carburetors.
The GAUA will be doing the Christmas party on January 17th at Fisher's in Bellville the cost is \$17 per person. We will be joining the EAA and the Illinois Pilots association. People are bringing gifts for a gift exchange max value \$10.

Treasures Report

Expenses	\$0.00
Income	\$50.00
Total	\$1229.92

Adjournment 9:00

Calendar of Events:

Not much happening again guys. My sources had nothing listed other than EAA chapter meetings.

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The Fly - By

Date Dec, 2008

Emails for the Newsletter

A Quiz from Bill

FLIGHT SAFETY

Propeller safety is focus of new quiz

At high power settings, propeller tips can approach the speed of sound. The hazard this presents to anyone who gets too close is obvious. A woman was injured at Frederick Municipal Airport in Frederick, Md., after she walked into a propeller. Test your knowledge of propeller safety with the foundation's [latest safety quiz](#). Then, learn more from a pilot who describes a different propeller accident caused by hand-propping in this [Real Pilot Story](#)

Propeller Safety

At high power settings, propeller tips can approach the speed of sound. The hazard this presents to anyone wandering nearby is obvious. But propeller safety goes beyond avoiding bystander injury. This ASF Safety Quiz will also help you understand design characteristics, preflight considerations, and key maintenance issues—all with the goal of keeping your prop in top shape.

1. Most propeller-strike injuries are the result of an inexperienced person attempting to hand-prop an airplane.
True
False
2. Over a recent 10-year period, propeller failure played a role in approximately ____ general aviation accidents.
20
40
80
120
3. A propeller nick or scratch that is less than 1/32-inch deep is not significant enough to weaken the blade and maintenance can usually be deferred.
True
False
4. A constant-speed propeller:
Decreases the blade's angle of attack as the engine accelerates, reducing the likelihood of overspeed
Automatically adjusts the propeller blade angle to maintain the rpm selected by the pilot
Uses a fixed manifold pressure-to-rpm ratio to accelerate the propeller at the same rate as the aircraft
5. For a constant-speed propeller, the temperature of the oil at takeoff can affect how well the propeller governor performs.
True
False
6. In the unfortunate event of a gear-up landing, at the first sound of the prop hitting the runway, the pilot should:
Immediately add full power and execute a go-around

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Add partial power to determine prop damage, and if able, go around

Leave power at idle and ride the belly landing to a stop

7. On the ground, the best way to reposition the airplane is to place your hands on ____.

The base of the propeller blades

The spinner

A towbar

8. The lowest blade angle of the propeller is near the blade ____.

Tip

Midsection

Hub

9. Propeller ____ is the difference between the geometric pitch of the propeller and its effective pitch.

Thrust

Drag

Slip

10. Manufacturers recommend rechecking propeller balance every ____ hours.

400 to 600

600 to 800

800 to 1,000

Propeller Safety - Score 100%

You got 10 out of 10

William Rohland AOPA Member 05803232

1. Most propeller-strike injuries are the result of an inexperienced person attempting to hand-prop an airplane

False

While hand-propping mishaps account for a portion of propeller injuries, **inadvertent contact with a spinning propeller by an individual in the ramp area accounts for a greater number of these accidents.** The four propeller-strike injuries that occurred in 2006, two were the result of hand-propping (one fatal), while the other two (both fatal) involved inadvertent contact on the ramp. In the two years prior, all of the propeller-strike injuries fell into the latter category.

Although the number of propeller-strike injuries is relatively low, these accidents are preventable. If possible, never attempt to load or unload an airplane with the engine running. If you must allow passengers or crew to board or otherwise approach the airplane, be certain that they understand the areas to avoid. Keep your hand on the mixture control and monitor their movement. If someone begins to walk in the direction of a spinning prop, kill the engine immediately. Remember that passengers are unlikely to hear your cautionary shouts over the engine.

2. Over a recent 10-year period, propeller failure played a role in approximately ____ general aviation accidents

The Fly - By

Date Dec, 2008

80

These mishaps typically involve propeller blade or hub fatigue, failure, or separation. In nearly all cases, proper inspection and maintenance could have prevented the accidents.

3. A propeller nick or scratch that is less than 1/32-inch deep is not significant enough to weaken the blade and maintenance can usually be deferred.

True

A thorough preflight inspection should include closely examining the propeller for nicks, scratches, or other signs of wear. **Generally, a nick that is less than 1/32-inch wide or deep can be deferred to the next maintenance cycle, but anything larger (or if there are numerous nicks, say from a recent departure from a gravel strip) should be dressed out immediately by an A&P mechanic.**" These larger nicks and scratches act as stress risers when the propeller is in motion, which can weaken the blade enough to eventually cause it to fail.

4. A constant-speed propeller

Automatically adjusts the propeller blade angle to maintain the rpm selected by the pilot.

A constant-speed propeller uses a propeller governor to automatically adjust the propeller blade angle to maintain the rpm selected by the pilot. While a fixed-pitch propeller is designed for best efficiency at one rotation and forward speed (usually somewhere between climb and cruise, but optimal for neither), a constant-speed propeller can increase or decrease its pitch to be efficient in a variety of flight conditions.

5. For a constant-speed propeller, the temperature of the oil at takeoff can affect how well the propeller governor performs.

True

Because the constant-speed prop needs both good oil pressure to do its job and oil thin enough to be pumped through the smaller passages of the prop, it's important to keep these parameters in mind, particularly for cold-weather departures. **A takeoff with cold oil will result in a poorly governed prop and a possible overspeed event.** In subfreezing conditions, it could take 15 to 30 minutes to get minimum oil temperature. Storing the airplane overnight in a heated hangar or calling for an engine preheat will help greatly."

6. In the unfortunate event of a gear-up landing, at the first sound of the prop hitting the runway, the pilot should:

Leave power at idle and ride the belly landing to a stop

Once the propeller strikes the ground during gear-up landing, do not attempt a go-around. Fatalities and injuries from inadvertent wheels-up landings are extremely rare. However, executing a go-around with damaged blades is very risky. As soon as the first blade tip hits the concrete, the prop is ruined and likely unable to carry the aerodynamic and structural loads imposed by the go-around. Even if the propeller stays sufficiently intact to prevent serious vibration, damage could be so severe that climb-out is impossible. The best choice is to keep the throttle at idle and ride the belly landing to a stop.

7. On the ground, the best way to reposition the airplane is to place your hands on ____.

A tow-bar

When repositioning an airplane, use a tow-bar. Avoid pulling or pushing the airplane around by the propeller because it could cause problems with both the propeller and the engine. Additionally, because the spinner is built to be light, it is too fragile to be used for repositioning. Pushing on the spinner can damage the backing plate that is also part of the propeller assembly. An airplane's POH may offer information on areas of the aircraft that can withstand push/pull pressure—but it's hard to go wrong with a tow-bar.

8. The lowest blade angle of the propeller is near the blade ____.

Tip

The propeller blade is designed with a "twist" so that **the lowest blade angle of the propeller is near the tip** and the highest blade angle is near the hub. The change in blade pitch is designed to accommodate the different speeds at which various sections of the blades are moving. For example, the tips of a standard propeller turning at 2,400 rpm are moving through the air at nearly 800 feet per second—three times faster than the portion of the blade nearest the hub. Because of this increase in speed, the blade angle decreases as the diameter increases in an attempt to provide for an even thrust loading across the entire length of the prop.

9. Propeller ____ is the difference between the geometric pitch of the propeller and its effective pitch.

Slip

Propeller slip is the difference between the geometric pitch of the propeller and its effective pitch. Geometric pitch is the distance a propeller should advance in one revolution; however, effective pitch is the distance it actually advances. Propeller efficiency (the ratio of thrust horsepower to brake horsepower) decreases as slip increases.

The Fly - By

Date Dec, 2008

10. Manufacturers recommend rechecking propeller balance every ____ hours.

400 to 600

Manufacturers of balance equipment recommend that airplane owners have their propeller balance inspected every 400 to 600 hours. A balanced propeller reduces stress and vibration and can create a smoother ride in your airplane.

The Fly - By

Date Dec, 2008

For Sale

2" Plastic root tube end caps \$2.00 each
Gray Tire with tube 4"W X 5" DIA 12.75 OD \$3.00 each
Call Ed Hase 314-787-8183

For sale Magellan GPS 2000 with manual W/ coordinates
It'll will get you there. Price \$80
Rich Brannam (618)466-7156

BRS-5 Model 750
Canister model
Serial # 16211
Built June of 2006

Was originally installed and has all the connections for an
Eipper Quicksilver. Can not use on my Kitfox, but would
consider taking a 500# soft pack in trade, for my aircraft. Asking
\$1525. If you have any questions or concerns about it! Call me
... **Roger Olsen (636) 391-1338**

From: "Bert Hampton" <stkbull@charter.net>

Quicksilver MX (N - numbered, Light Sport legal), Has full front fairing with windshield, independent brakes, dual strobe lights, tail wires replaced with down tubes, a rare twin carbureted Cuyuna 440 HP (high performance) engine with only 12 hours since professional rebuild, six gallon gas tank, 3-blade composite prop, new tires, new paint, Halls airspeed, altimeter, engine monitor, compass, wheel pants, currently equipped with Qualifier style sails, original single surface sails included, stalls under 27 MPH, cruises near fifty, very gentle, forgiving, easy to fly machine. The fabric is slightly soiled but passes punch test. She is currently at Jerseyville. I only fly her irregularly as I spend most of my flight time in the Ercoupe. I have always enjoyed flying my Quicksilvers. I have had four of them over the years. This one is perhaps the best mannered and easiest to fly machine I have owned. But, besides the Coupe, I have two planes under construction that will soon need the hangar space. Something has to go. Asking \$3,700 as an E-SLA OR - \$3,200 parts only with out placard and airworthiness certificate if you would prefer ultralight flying . (Note: if you have a place to hangar it in the local area, I'd sell a 1/2 interest for \$1,600) Call Bert at 618-236-1312

If anybody in the GAUA has items they would like to put in the for sales page send an email to billbuch01@yahoo.com having the contact info, description, price and have the subject line read GAUA FOR SALE.
