The Sport Flyer

The Official Newsletter of the Georgia Sport Flyers Association, Inc.

November 2007

Hello from Neuschwanstein Castle

- **Our Next Meeting is November 10th at Etowah Bend 10:30 am for flight talk, 11:00 meeting starts.**

Greetings from Germany

by Richard Johnston

As some of you may have noticed, I was not at the last club meeting. After several years of not taking a significant vacation, I decided to go back to Germany for a long overdue vacation. Several years ago while on a long business trip in Germany, I discovered several interesting places to go and things to do on the weekends. One of the more interesting things that I had visited was the yearly wine festival in Neustadt an der WeinStrasse. This festival is the superbowl of wine festivals as each wine-producing region in Germany has their individual festivals and their own wine queen and then participates in the overall festival in Neustadt. The festival in Neustadt has wine stands where you can sample local winery products, a parade with over 300 floats and marching bands, and the election of the years wine queen.

So with revisiting the wine festival in mind, Martha and I decided to go this year despite significantly higher airfares and an unfavorable exchange rate. We did manage to book a relatively low fare and off we went to Frankfurt then a short drive to Heidelberg. The flight was rather uneventful except for some turbulence for a good portion of the flight. As others seemed a bit nervous during some moderate bumps, it made me smile thinking that these bumps were nothing compared to flying my Phantom on a gusty day!

The weather was perfect for the wine festival and for most of our trip. A clear sunny day with temperatures in the 60's set the stage for a great festival. The city center was shut down for the parade and we found a spot as close as possible just across the street for the local television coverage of the event. The entire parade took about 2 ½ to 3 hours to complete and during that time I was able to sample more than my share of the local wines. One of the more interesting wines is the NeuesWein (New Wine), which still has yeast floating around in the glass, and is from the current year's harvest.

We also had a chance to drive down to see the Neuschwanstein castle, pictured on the cover of the newsletter. This is one of the more recent castles built in the 1800's by King Ludwig of Bavaria. Most of the castles in Germany were built in the 11th and 12th century and many are being restored. Neuschwanstein had been visited by Walt Disney and is the model for the Cinderella castle in Disneyland and the Magic Kingdom. From Heidelberg, Neuschwanstein is several hundred kilometers away and took 3 hours to drive there.

Driving on the autobahn is an experience. Although there are speed limits in metropolitan areas, out in the countryside there is a recommended 130 km/hour speed limit and many drivers greatly exceed that speed. It is amazing to be driving at 150 kph (approximately 90 mph) and have someone pass you at nearly double your speed.

While we were at Neuschwanstein, the weather must have been very good for para-sailing as there were 3-4 para-sails soaring over the castle, riding the thermals of the valley and upsloping winds from the light breeze encountering the mountain ridge. I bet the view was great up there. Perhaps they were members of the "Deutsche Sport Flieger" Klub!

From The Safety Officer
Load Factor & Stall Speed

A good article resubmitted, by Michael "Budman" Prosser, as a reminder - enjoy.

SAFETY LINES by Ben Cole

Add weight to an aircraft, and you will need a higher angle of attach to generate the life to support that extra weight. As weight increases, stall speed increases. According to "Aerodynamics for Naval Aviators", a rule of thumb is that a 2% change in weight causes a 1% change in stall speed.
As Center of Gravity moves aft, the elevator control force becomes lighter, and less of a pull on the stick is needed to increase the angle of attack. In addition, the plane may reach a higher angle of attack after the stall and spin recovery will be more difficult.

"Load Factor" is a term pilots don't think of every day. It's a fancy term for "G" forces. Normally, when flying straight and level or in an unaccelerated climb or decent, the airplane is pulling one G. (Lift equals weight and the load factor is one.) But in level turns, the plane has to pull a little more G to boost the total lift vector enough so that the vertical component will be sufficient to support the plane's weight. In doing so, however, the stall speed increases in proportion to the square root of the load factor. In a coordinated level turn, with 30 degrees of bank, the plane will pull about 1.15 g's. With 45 degrees of bank, it will pull about 1.4 g's and with 60 degrees of bank, 2 g's. At 70 degrees of bank, about 3 g's will be pulled. Therefore, a plane with a VSO (stall speed) of 50 (indicated airspeed) will stall at 59 in a 45 degree banked turn. Tighten the bank to 60 degrees and the airplane will stall at 71.
It's a classic stall/spin accident. It may occur when a pilot sees that he will overshoot on his turn to final, and then pulls a high-G turn to get lined up correctly. (During the turn, the airplane stalls, a wing drops, and the plane heads straight to the ground.) Or, the stall/spin may occur if the pilot skids into the turn to line up with the runway. Or, in distress on takeoff, the pilot does a sharp 180 degree turn to return to that smooth landing strip. Thanks to Tim Cunningham, Lite Blue News, Lite Blue Angels of Pensacola, FL for the article.

Editor's Note: To avoid the stall/spin accident:

- Maintain adequate airspeed at all times.
- Don't make high-G turns in the pattern or at any time without sufficient altitude for stall/spin recovery.
- Perform coordinated turns (use the rudder correctly).
- Avoid turning back to the airport if there's a problem on climb-out. A better choice is usually to land straight ahead, with only minor turns as needed.

Yep, something to think about.
Budman

Safety Tip for the Month

Buy & use products that you can trust. Support our Sponsor(s).

Buy Pennzoil Products

Submitted by Michael "Budman" Prosser

More Simple Maintenance
Gotta love Those Tires - We Can't Go Without Them

An item often forgotten, until it shows its ugly face, is a flat tire. A flat tire can ruin your whole day (or trip), especially if it happens away from your home airport, unless you planned for such a contingency. From a big picture perspective, somehow the air got let out. There are so many ways for that to happen. Why do tires go flat anyway? Well, after all, a child might say that it's only flat on the bottom…ha ha. Let's look at a few examples tire & wheel assemblies from a more simple perspective - the culprit.

There are multiple types of tire and wheel assemblies. Which type does your aircraft/vehicle have? You should know. Most of our tire & wheel assemblies are pneumatic tires; that's right, they rely on compressed air to inflate them and keep them inflated. You should know your tire inflation pressures for both the nose wheel, main wheels and/or tail wheel, as appropriate. The standard is the basic wheel (rim assembly), inner tube and tire assembly. The next most popular configuration is the tubeless tire and wheel, which incorporates an independently sealed valve stem. If you have a tail wheel, it may be solid rubber a pneumatic tire.

How does a flat tire happen (the culprit)? It's "Murphy's Law" remember…of course!!! Murphy is still alive & well. Sometimes it's a puncture ; other times the tire may spin on the wheel (rim) and tear the tube at the valve stem or if it's a tubeless tire , a sideways landing may break the bead of the tire and wheel, causing the air to escape. A hard landing may bend the wheel, causing air to escape and other physical damage. Sometimes, it's just a matter of time if the flat is caused by a "pinched tube". It is way too easy to pinch an inner-tube when reassembling a wheel & tire. A most subtle cause of a flat tire and/or tire failure is "dry rot". This affects both the tire and the tube! Tires and tubes definitely have a shelf-life. The clock starts ticking when they are exposed to the environment. Dry rot happens gradually over time and sneaks up on you that way. Your wheel and tire assemblies should most certainly be part of your pre-flight. When performing maintenance, a simple water test or soapy water test can reveal any leakage.

How often do you have to re-inflate your wheels? Having to do it very often may indicate a problem. Over inflation and under inflation are also problematic and may lead to premature tire replacement or failure. The problem with wheels are that they are sort of "out of sight & out of mind". More often than not, the nose wheel is the one that gets overlooked the most because it is under the pod or cabin. Tires that are inside of wheel pants are also often overlooked due to the same reason. Another item often overlooked is the valve stem itself. It has a valve that threads into the top of the valve stem and once in a while it leaks. It is o-ring or gasket sealed. A simple water test will reveal any leaks here. It takes a special tool to install tighten or remove the valve stem valve.

If you agree that tires and tubes have a shelf-life, then you will also agree that it is not the "tread life" that necessarily determines when the tire &tube is worn out and/or should be replaced. Dry rot causes a tire or tube to lose elasticity, becomes harder and eventually cracks appear in stress areas. Keep an eye out for those tell-tale marks. Tubes are harder to detect, because they are inside the tire & wheel assembly. Tubes can suffer a malady of problems, besides the common torn valve stem or leaking valve stem valve. Tubes can chaff inside the tire, and they can stick to the inside of the tire, or get "pinched" by the wheel halves. Check the juncture of the wheel halves and remove any burrs or raised metal that make chaff or cut the tube over time. Do not however, remove the ridges that engage the tire to prevent it from slipping on the wheel. Make sure that you are using the right size inner-tube for the wheel. One of the easiest ways to ensure that you have a good tube in there is to change it each time you change or replace a tire. After all, it's real cheap insurance too. Changing a tire without replacing the inner-tube is just asking for trouble, in my opinion.

I also recommend that when you remove a wheel and inspect it, please do not forget to inspect the wheel bearings. The bearing inspection & test is both a visual test/inspection to check the bearing seals - seals should

be intact and no loss of lubricant and "spin test" for smooth operation. The bearing should spin freely without any grinding or binding. I wrote an article in the October newsletter, concerning wheel bearings; please refer to that article also.

Now, do the right thing and check your tires before you go flying again.
Be safe out there.

Michael "Budman" Prosser

To Pulse or Not to Pulse, That is The Question

Rotax Engines. Great power plant. No battery needed. Self contained Electrical system and even a pulse driven fuel pump. All is well when everything stays connected properly. But if that thick colored hose that is supposed to deliver that engine pulse to the fuel pump Comes Loose? Then No pulse – dead fuel pump – carbs run dry – and then Instant Silence. Nothing but the clouds above and the Ground below.

NO Off Field Landing Practice This Time. It's the Real Thing.

Remember the odyssey of Ben and Wayne's Opps in the Bean Field a couple of years ago? And then, just a few days ago, Ben was performing another test flight with Dan's plane and had an engine out. He was fortunately still over the runway and was able to make a Great low altitude landing. The definite culprit in the Bean Field Failure and the suspected cause in Ben's latest event was the fuel pump pulse hose coming loose at the engine block.

So why does this pulse hose come loose? Well. unlike the hose fittings and couplers in our fuel systems that have 2, 3 or even 4 pointed bumps, or barbs, that grip and hold the fuel line – the pulse line fitting at the engine block has on ONE barb, and it is Smooth with a Very Short shank.

One sure grip hose clamp used a great deal is the small metal screw type like that used on car hoses. Even the smallest clamp of this type has a width slightly larger than the length of the engine block pulse line hose fitting. This fitting also comes out of the block at an angle – not at a true right angle. This means that, once placed over the pulse hose, the block edge of metal screw clamp must literally be forced against the block. First adjust the clamp to the smallest diameter without gripping the pulse hose. Then use a long, large flat ended screw driver resting it against the pulse hose and the outer edge of clamp. Tap the screw driver with a small hammer forcing the clamp against the block. Be careful not to let the flat end of the screw driver damage the pulse hose. While continuing to push the clamp against the block with the screw driver, tighten the clamp firmly. Once the clamp is tightened, make certain that the outer edge of the hose clamp is BEHIND the one and only barb on the engine block pulse line fitting.

The hose clamp must NOT be tightened on TOP of this barb for it will almost certainly Loosen up over time, especially with some hose aging and compression. If done properly, a tug on the pulse hose during Prefight Inspection will NOT loosen the hose.

If a tug Does Loosen the hose – Better to find it On The Ground and NOT in the Air.

Any other approaches that can keep this from ever happening again would be greatly appreciated by all.

Two times of having this happen is enough. A third time should Not an option.

Ben there, done that – W. Evans

Nominations for Club Officers For 2008
From the October Meeting

President: Michael Miller, Jr.
Vice President: Phil Jouanet
Sec./Treasurer: Kim Arrowood
Newsletter Editor: Ken Adams
Website Officer: Richard Johnston: Richard was not present for the nomination
Safety Officer: Michael W. Prosser

Honorable Mention: Steve Ahouse has graciously agreed to continue to perform the duties as Club Chef!!!

Note: Individuals may still volunteer for officer positions, prior to the November vote. If interested, be prepared to throw your hat into the ring prior to the "closing of nominations". The Club elections will be at the November meeting; please be there.

Thanks
Budman

Tax Time – You just can't run from it!!!

Just a reminder: It's time to pay your **2007 UL Advalorem Tax**.
I received my tax bill notice this month, from the Bartow County Tax Assessors Office, did you??????????????
If you didn't, please contact the Tax Assessors Office in your county to keep from getting into trouble. If they have your national registration number (N number), then they know where you live. My tax bill is due December 15th this year; at least we have a little time to save up the money.
Do the right thing.
Michael "**Budman"** Prosser

Aviation History: The Besler Steam Plane

A Travel Air 2000 biplane made the world's first piloted flight under steam power over Oakland, California, on 12 April 1933. The strangest feature of the flight was its relative silence; spectators on the ground could hear the pilot when he called to them from mid-air.

The aircraft, piloted by William Besler, had been fitted with a two-cylinder, 150 hp reciprocating engine. An important contribution to its design was made by Nathan C. Price, a former Doble Steam Motors engineer. Price was working on high pressure compact engines for rail and road transport; the purpose of the flight was to obtain publicity for this work.

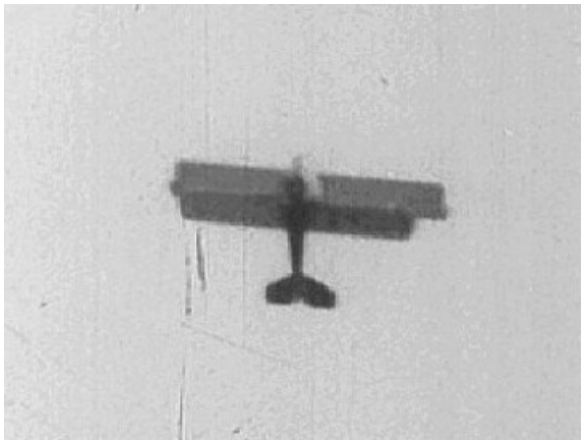
Following its unexpectedly favorable reception Price went to Boeing and worked on various aviation projects, but Boeing dropped the idea of a steam aeroengine in 1936. Price later worked for Lockheed where his experience with developing compact burners for steam boilers helped to design Lockheed's first jet engine.

William Besler in front of the Airspeed 2000

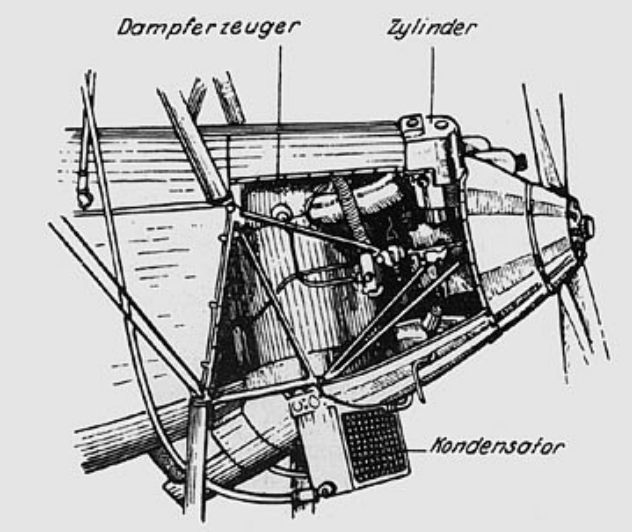
Besler Steam Plane in Flight

The advantages of the "Besler System" that were claimed at the time included the elimination of audible noise and destructive vibration; greater efficiency at low engine speeds and also at high altitudes where lower air temperatures assisted condensation; reduced likelihood of engine failure; reduced maintenance costs; reduced fuel costs, since fuel oil was used in place of petrol; reduced fire hazard since the fuel was less volatile and operating temperatures were lower; and a lack of need for radio shielding. For capacities in excess of 1000 horsepower a turbine captures the energy released by the expansion of steam more efficiently than a piston. Thus, the steam reciprocating engine turned out to be unsuitable for scaling up to the needs of large aircraft.

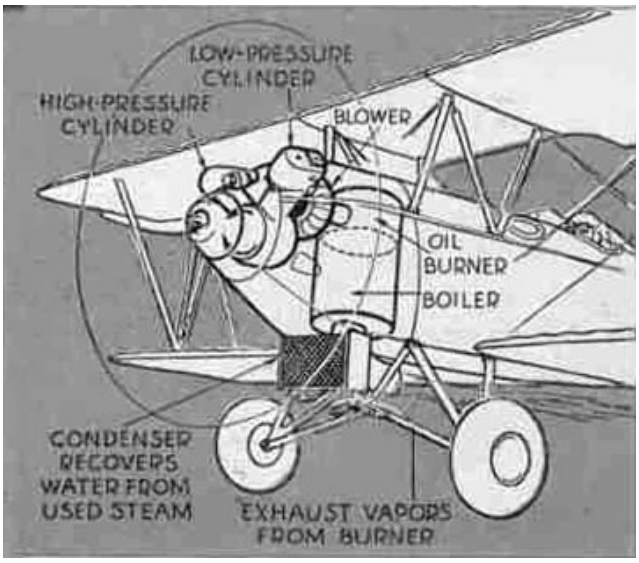
Approaching under steam



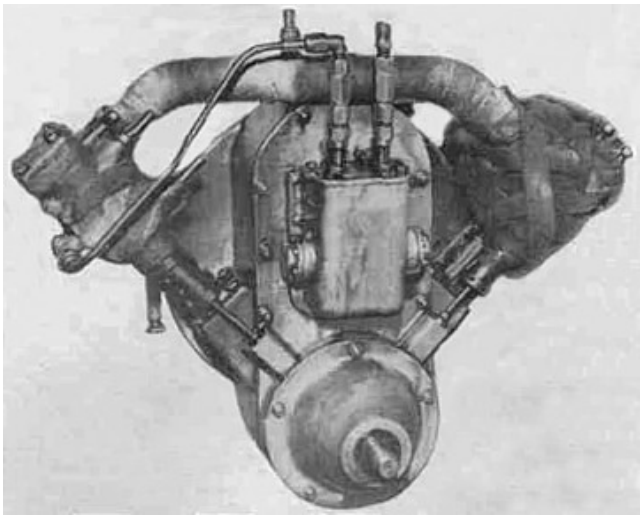
A very rare shot of the Airspeed 2000



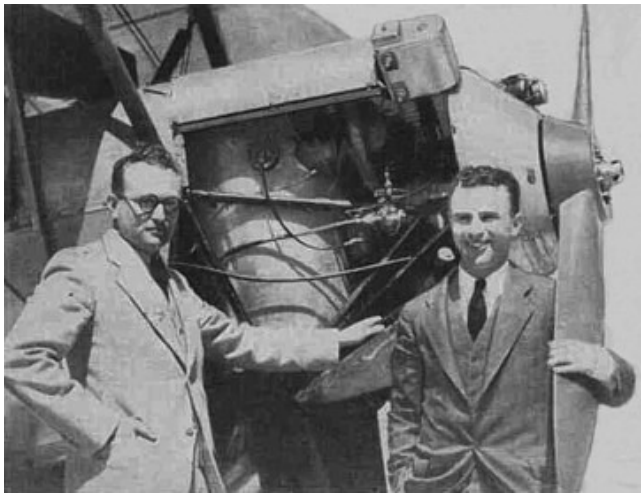
Engine layout as published in "Luftwissen"/Germany 1941



Concept of the Besler steam plane demonstrator



Besler steam aero engine



The Besler brothers proudly posing in front of their design

From The Safety Officer

Hello GSFA Members:
Below is the latest change to the VPC airport traffic pattern. Also, please note that a NOTAM dated Oct. 17, 2007 has been issued for VPC.
Michael “Budman” Prosser

The Cartersville-Bartow County Airport Authority

P. O. Box 323
Cartersville, GA 30120

The VPC Airport Authority has received complaints of recent increased intensity of helicopter training at VPC, with concerns about the conflicts with fixed-wing aircraft. Specifically, the helicopters were not flying the mandated VPC traffic pattern, i.e., they were using right-hand traffic patterns.

The FAR provides very little guidance on helicopter operations, with the exception of paragraph 91.126(b)(2) which states "Each pilot of a helicopter must avoid the flow of fixed-wing aircraft." That restriction has been the basis for the helicopter community's procedure of using right-hand traffic at non-controlled airports with normal left-hand traffic, and the FAA concurs in that rationale as one way to avoid the flow of fixed-wing aircraft.

This issue has been discussed with both the FBO and the FAA, and to preclude any misunderstandings about proper helicopter operations at VPC, the FAA recommended that the VPC Airport Authority establish and publish right-hand traffic patterns for helicopters.

Establishment of the right-hand traffic pattern in no way relieves helicopter pilots of their FAR requirement to "avoid the flow of fixed-wing aircraft;" it just formalizes accepted helicopter traffic pattern procedures of avoiding the normal traffic pattern and advises the fixed-wing users of where to expect to see helicopter traffic.

A NOTAM was issued Oct 17, 2007 establishing the above policy, and the Airport Facility Directory, Southeast, will be updated to reflect the above change.

The high volume and mix of aircraft at VPC, from ultra-lights/LSA through corporate jets with a wide range of operational capabilities, creates a great potential for traffic conflicts and/or accidents. It is imperative that all users adhere to all published procedures, make the recommended radio calls, and be especially vigilant in the "See and avoid" mandate of AlM 5-5-
8, which charges pilots with the responsibility to see and avoid other traffic, when meteorological conditions permit, regardless of the type of flight plan.

The VPC Airport Authority is committed to doing everything in its power to make the airport the safest in the State of Georgia, and we ask your help in achieving this goal. Any comments or suggestions on this or any other issues would be appreciated.

Robert E. Hite, JR.
Member, VPC Airport Authority

Great Truths

GREAT TRUTHS THAT LITTLE CHILDREN HAVE LEARNED:

1) No matter how hard you try, you can't baptize cats.
2) When your Mom is mad at your Dad, don't let her brush your hair.
3) If your sister hits you, don't hit her back. They always catch the second person.
4) Never ask your 3-year old brother to hold a tomato.
5) You can't trust dogs to watch your food.
6) Don't sneeze when someone is cutting your hair.
7) Never hold a Dust-Buster and a cat at the same time.
8) You can't hide a piece of broccoli in a glass of milk.
9) Don't wear polka-dot underwear under white shorts.
10) The best place to be when you're sad is Grandpa's lap.

GREAT TRUTHS THAT ADULTS HAVE LEARNED:

1) Raising teenagers is like nailing Jell-O to a tree.
2) Wrinkles don't hurt.
3) Families are like fudge...mostly sweet, with a few nuts.
4) Today's mighty oak is just yesterday's nut that held its ground.
5) Laughing is good exercise. It's like jogging on the inside.
6) Middle age is when you choose your cereal for the fiber, not the toy.

GREAT TRUTHS ABOUT GROWING OLD

1) Growing old is mandatory; growing up is optional.
2) Forget the health food. I need all the preservatives I can get.
3) When you fall down, you wonder what else you can do while you're down there.
4) You're getting old when you get the same sensation from a rocking chair that you once got from a roller coaster.
5) It's frustrating when you know all the answers but nobody bothers to ask you the questions.
6) Time may be a great healer, but it's a lousy beautician..
7) Wisdom comes with age, but sometimes age comes alone.

THE FOUR STAGES OF LIFE:

1) You believe in Santa Claus.
2) You don't believe in Santa Claus.
3) You are Santa Claus.
4) You look like Santa Claus.

SUCCESS:

At age 4 success is . . not peeing in your pants.
At age 12 success is . having friends.
At age 16 success is . . . having a drivers license.
At age 35 success is . having money.
At age 50 success is . . . having money.
At age 70 success is . . . having a drivers license.
At age 75 success is . having friends.
At age 80 success is . not peeing in your pants.

Thanks to Dave Evans, Wayne’s Son

Your Flight Instructors:

Ben Methvin - BFI, AFI,
BFI-SP, DPE (770) 509-6753
Training Field - Cartersville (KVPC)

Bob Smedberg - BFI (706) 235-2147
Training Field - Cartersville (KVPC)

Kim Arrowood – BFI, CFI (770) 547-3622
Training Field - Cartersville (KVPC)

Gleim Sport Pilot Starter Kits available from Kim Arrowood (770) 547-3622

Another New Sport Pilot FAQ site: http://www.all-about-sport-pilot.com/faq.htm

You might want to Check It Out.

Super Training Tips: Worth Repeating

AOPA Cross Country Introduction.
http://flighttraining.aopa.org/members/get_help/articles/3535.cfm

Sport Pilot Check Ride Guide: (courtesy of AOPA) Worth Repeating

One of the key elements that FAA Inspectors and Designated Pilot Examiners (DPE), such as Ben Methvin, uses for Sport Pilot flight Instruction and Practical Test is the FAA Practical Test Standards (PTS) FAA -S-8081-29 effective December 2004.

This PTS can be downloaded from the FAA web site:
http://www.faa.gov/licenses_certificates/airmen_certification/sport_pilot/

After taking many inputs from its members and others, the AOPA has also created a 31-page document covering the PTS in a more straightforward form called the "Sport Pilot Checkride Guide". This guide can be downloaded from the following AOPA web site link:
http://www.aopa.org/asf/publications/sport_pilot_check.html

Good Luck with your Flight Test Preparation- Ed

Any Accidental Oversights
Anything you Don't Like
Anything you would like more of
Suggestions for Improvements
Email to mailto:ra_johnston@yahoo.com
Use "Club Member Feedback" on the Title Line

Hot Web Links:

Georgia Sport Flyers: www.georgiasportflyers.com
Atlanta Ultralights - http://atlantaultralights.com/
USUA - http://usua.org/
EAA - http://eaa.org/
AOPA - http://aopa.org/

AOPA Flight Training - http://flighttraining.aopa.org/
FAA Written Test Questions: http://www.faa.gov/education_research/
FAA Test Question Answers from Ed. Send Request to mailto:ra_johnston@yahoo.com
See Preceding "Note from Wayne Evans" or Adobe Reader Download - All versions

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Title 14: Aeronautics and Space -

PART 61—CERTIFICATION: PILOTS, FLIGHT INSTRUCTORS,AND GROUND INSTRUCTORS:
http://www.aopa.org/members/files/fars/far-61.html - 14:2.0.1.1.2.3.1.4 (Tons of Info)
*****FAA NOTAMS - http://www.faa.gov/pilots/flt_plan/notams/ (Read, Read, Read)