AUBURN AVIATION ASSOCIATION

propwash

Dedicated to aviation, safety, friendship, community involvement and education since 1984

www.auburnaviationassociation.org

December 2006

In This Issue:

President's Message

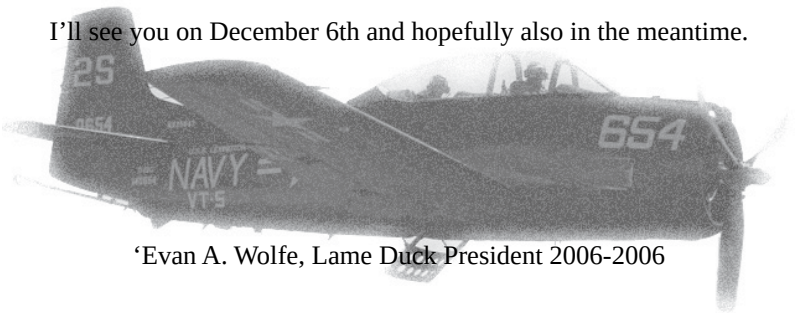
I wish that more members could have attended our November 1st meeting. We had great food and a lot of it. Nominations were discussed for the 2007 slate of officers and directors. We were privileged to have Melissa Andrzejewski (prounounced: Ann - druh - juh - ski) speak to us. Melissa is a new resident of Auburn, having moved here most recently from Lodi. She was raised in Pennsylvania but likes our winters better. She started flying five years ago at the age of seventeen. Now at just twenty-two years of age, she holds commercial, multi-engine, and instrument ratings and is a member of the U.S. Aerobatic Team. She holds a waiver to 250' for air show performances. To keep from being bored by her mundane life, she also does parachute base jumping from cliffs, towers and tall buildings. She is single and gorgeous and has a very winning personality. She owns her own Edge 540 unlimited aerobatic plane and she leaves behind her a lot of young men that are stupefied by her charms and unable to keep up with her.

We had a lot of Cal Star renewals, and while there is not a deadline for joining the group, our group coverage period is now from November 7th through November 6th of 2007. If you plan to enroll in the coverage, and you should, you might as well get the full period coverage by signing up now. The cost is just $35.00 per family, per year. At an average cost per air ambulance ride of $17,500.00, even with good health coverage, your deductible could be pretty high. Having Cal Star well funded also helps to insure that they will stay in business and still be here if we need them. Call me at (530) 885-4700 to get an application.

The main dishes for the December meeting will be ham and turkey, augmented by a selection of gourmet pot luck dishes and desserts. We have some great speakers lined up for the next few months and I hope that you will all come and bring some guests too. New, unwrapped toys for underprivileged kids from age 0 to 16 are requested.

We announced the raise in dues to $20.00 per year, per family, which is still the best bargain around. If new members join now, they will get the rest of December free. I want to thank all who participated in the meeting on November 1st and give a special thanks to those who pitched in and helped clean out the storage room.

I'll see you on December 6th and hopefully also in the meantime.



'Evan A. Wolfe, Lame Duck President 2006-2006

Old "Indian Tricks" For Pilots #12

Evan A. Wolfe, C.F.I.

The "trick" for this month is not a flying trick as such, but it is a maintenance tip that could greatly improve your flying. Most new production planes fly just about the same as any other one of the same make and model. As they get older and undergo a lot of use and service and repairs, sometimes they change a bit in the performance. Sometimes they improve, but typically they degrade a bit. Subtle little changes can occur over time that have a pronounced effect on the handling and performance of the plane. The one that I would like to discuss is the main gear wheel alignment. It is most critical on the tailwheel type of planes, but also important for tricycle gear aircraft. If you surveyed a number of A. and P. mechanics and I.A.'s, and asked them if main gear wheels should be toed in or toed out, or left neutral, you would get a lot of blank stares and/or wrong answers. To start this discussion off, I want to give you a little test.

On a tailwheel type airplane, the main gear wheels should be:

A. toed in
B. toed out
C. straight
D. I couldn't care less.

If you answered D., skip the rest of this article and go on to the next subject. If you answered A. or C., keep reading and find out where you went wrong. If you answered B., you were correct and you might want to keep reading to find out why you guessed right or to confirm why you are so smart.

In addition to being very critical in touchdown pitch attitude, directional control is a big challenge in landing or taking off in a tailwheel type plane. There is a reason why cars have front wheel steering. With rear wheel steering, the back end tries to pass the front end whenever there is any deviation from straight ahead. If the gear is toed in, whenever the plane turns, the weight will shift onto the wheel that is outside to the turn. If you turn to the right, the weight will shift toward the left wheel and increase traction on it. If that left wheel is toed in (aimed right) the plane will try to turn more to the right. That is not a good thing. It is hard enough to keep a taildragger straight without it working to compound your difficulties. If the wheels had been slightly toed out, the left wheel would be slightly aimed to the left and when it got more traction from a weight shift resulting from a turn to the right, it would tend to help you pull the plane back to the left.

Now don't get me wrong, you can't set up your gear so that it is toed out 8 or 10 degrees to make your plane automatically self straightening and foolproof. Life is not that simple and there are other considerations. Above about 2 degrees, the tires will start to fight each other and scrub. Probably the best compromise is 1 to 1.5 degrees. Although the alignment difference between 1.5 degrees toed in and 1.5 degrees toed out does not seem like much, it can make the difference between the plane being friendly and forgiving or being mean and treacherous. If you add in overall misalignment to the right or left to some toe-in, you have an invitation to a ground loop. I have the pleasure of taking care of a local

Cessna 195. A 195 is generally not the hardest to fly taildragger but they have their challenges. They are blind straight ahead because of the fat nose that houses the Jacobs radial engine so it is harder to immediately perceive slight variations in direction. So many of them were ground looped that Cessna came out with a crosswind gear that solved that problem. For many 195 pilots however, showing up with crosswind gear on their plane would be like riding a Harley-Davidson to Sturgis with training wheels on it. It just doesn't look like the manly thing to do. The 195's look kind of macho with their tail wheels and big radial engines but the pilot's ego could be threatened if it had "training wheels".

I have about 1000 hours of 195 time but this particular 195 was the meanest one that I have ever flown. Each time I flew it, I dreaded the anticipated landing. When you touched it down, it had a mind of its own. It reminded me of a very mean horse that we once owned which we had to sell after it broke both of Lorri's wrists.

Finally, I decided to check the gear alignment and see what was causing my problems with the 195. To check gear alignment, I use highly sophisticated equipment which I own. It consists of two six foot lengths of 1" square aluminum tubing, two sets of 1' x 1' aluminum

sheet grease plates, some bungee cords, some masking tape, a measuring tape and a black marker pen. I take off the wheel pants, if any, and roll the wheels onto the grease plates and wiggle the tail right and left to allow the wheels to assume their natural aim on the grease plates. I strap the square tubing onto the outside of the tires. I then sight down the tubing toward the rear and put some strips of masking tape along the leading edge of the stabilizer. Next, I measure from the outside of the front ends of the tubing and record the distance and then measure the distance between the outsides of the tubing at the back and record that number. Each variance between the two distances of an inch is about 1.3 degrees. That gives me the amount of toe in or toe out. Next, I check the overall aim for right or left variance by sighting through the tubes to the stabilizer leading edges and marking on the tape where they line up. By measuring each mark from the stabilizer ends or from the vertical stabilizer, I can see if they are matched. If they are equal, then the left - right alignment is good. If not,

some changes are in order. Planes like Cessnas bolt their axles to the spring gear leg and the alignment can be shimmed to perfect it. Most others can be adjusted but may take more resourcefulness.

Back to the case at hand. This particular 195 turned out to be perfect on the left wheel but the right wheel was canted about 3 degrees to the left of straight. By a bit of skill and a lot of luck, I hit the right shim combination on the first attempt to correct it. It is now toed out 1.3 degrees and equally aligned to the right or left. Viola! It was like the taming of the shrew. It was obedient on takeoff and didn't try anything sneaky on landing. I tried it again and had the same result. Instead of dreading the landings, I enjoyed them. I did about eight or nine landings and had so much fun that it was like being in my old 195 that I used to fly as if it were an extension of my own body. It is amazing how such a subtle change can make the difference between having a shrew or a sweetheart.

"But I own a tricycle gear Cessna, what the heck do I care?", you might ask. While tricycle gear alignment is not nearly as critical for directional control, it can make a difference. In the case of the tricycle gear, the ideal alignment would be one degree of toe-in and centered with the fuselage centerline. That way it will tend to be self correcting for directional control and yet will have minimal tire scrub, reducing wear.

If you have questions about your particular plane's alignment, feel free to ask me. I have an answer for almost any questions, and sometimes they are right.

Look for more tricks in future issues.

It's That Time of Year Again!

AAA always donates to the Community Food Bank this time of the year, and we would like to ask that you bring non-perishable food to contribute to our food baskets. Members are also requested to bring an unwrapped toy to be given to needy families in the community. Please share in the giving this holiday season!

Change of Editors

After serving as your newsletter editor for the past two years I would like to thank all of you for your welcoming, support, and friendship! I have greatly enjoyed my time working on the AAA's newsletter and have had an opportunity to give a little bit back to the aviation community.

Unfortunately, as I have become even busier over the last few months I will not be able to continue another term as the editor. I have been informed that Andy Robinson will be acting as at least an interim editor. Thank you Andy for your hard work and dedication! Also, I want to say thank you to Dick Kiger for all his hard work in helping with the newsletter and getting it out in the mail to all of us. We couldn't enjoy the newsletter with out you!

I hope that all of you continue to enjoy the newsletter and send in articles, pictures and any other information that you would like to see published for the entire association to enjoy.

Thank you again, for my last two years of service to such a wonderful group. I look forward to seeing you all at the airport and hopefully at meetings! Have a happy holiday season!

Chelsea Engberg (2005-2006 AAA Newsletter Editor)

Flying Doc

Jennifer Clothier, MD

I would like to present a new idea for our illustrious newsletter Propwash. Seeing as it was my husband, Ravi Fry, who so selflessly volunteered Andy Robinson for the job of overseeing the monthly publication I felt a sense of obligation to do what I might to help the poor bloke out. Andy made it pretty clear last meeting that he no longer had time to fulfill the duties of the vice presidency of the Auburn Aviation Association, and was actually looking for a graceful way out, instead finding himself succumbing to peer pressure and agreeing to overseeing the newsletter.

As some of you may know I am a family physician practicing here in Auburn at Sierra Doctors. I thought it would be fun and informative to start a health related column focusing on issues which are pertinent to all of us, but especially to you as pilots who, as you get older, face the dreaded loss of your medical. I focus on and preach prevention in my practice and would be happy to offer some insight, advice and suggestions, as well as answer any question you may have regarding your health, your FAA medical exam, medications, etc. I am not an FAA Medical Examiner, though I have looked into it; it seems I keep running into bureaucratic obstacles I have yet to figure out how to surmount; i.e. they don't return my calls.

Anyway, I would like to start with a relatively new diagnosis that has been getting a lot of press lately: Metabolic Syndrome. About 20 years ago doctors, cardiologists in particular, started looking at the phenomenon of the sudden MI, a.k.a. heart attack, or stroke in the otherwise seemingly healthy 50 or 60 something white male who just had a complete physical, had no warning signs or symptoms, and appeared to be doing just fine. Then out of nowhere comes this, if not fatal, life altering and potentially permanently debilitating or disabling event. What exactly happens here?

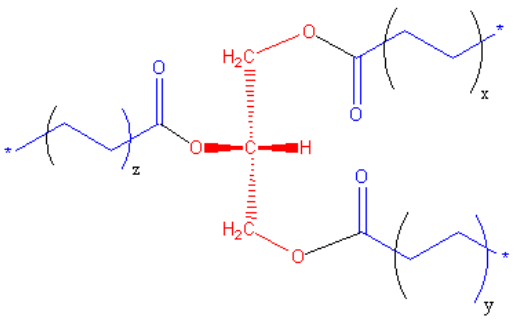
We all know about cholesterol and that it causes plaque to form in or around the arteries which carry the blood throughout the body, most importantly to our heart and brain. But there has to be more to it then that. The cholesterol plaque actually forms outside of the artery lumen within the arterial wall. The blood vessel is lined on the inside by a thin smooth tissue layer called the intima, and it appears this layer is little affected by cholesterol itself. Over the past 20 years we have discovered that it is other factors which lead to irritation and inflammation within the vessel lumen that is ultimately responsible for the unexpected acute MIs and strokes so prevalent in our society. Inflammation inside the artery damages the intima and leads to the leaking of enzymes and cellular debris, the accumulation of clotting factors, and the aggregation of platelets and blood cells, and all this forms a sort of scab or clot inside the artery, this scab then dislodges, flows downstream, and voila, a heart attack or stroke ensues.

We have determined 5 major risk factors leading to this phenomenon, if you have 3 or more of the 5 risk factors you are considered at risk and qualify for the diagnosis of metabolic syndrome. There is no specific test to identify this syndrome, and the treatment is actually really quite simple and straight forward: eat right, exercise and lose weight; if you don't it is very likely that you will develop diabetes and end up taking a handful of pills daily, and quite possibly losing your FAA medical.

The 5 risk factors are: 1) elevated triglycerides, 2) elevated fasting blood sugar, 3) trunkal obesity (that is to say a waist circumference of greater than 40 inches for men and 35 inches for women, and please note fellows, we are not talking waistline in terms of pant size, most of you wear your pants on your hips, we are talking about 2 inches above you iliac crests, we are talking your gut… women, you know where your waist is, or was, and this is where the pear vs. the apple shaped women realize their decreased risk for heart disease), 4) hypertension, and 5) a low HDL cholesterol. These 5 things all cause or contribute to the inflammatory process that can wreak havoc inside the arterial vessel.

I have decided to address each risk factor separately and then Andy can fit them into the upcoming Propwashes as I doubt you want to swallow it all in one sitting. We will address triglycerides this month.

Triglycerides are one of the circulating fats in our bloodstream; it is measured as part of our lipid profile. It is the reason we do our lipid profiles fasting as our triglyceride level will fluctuate greatly depending on what we have recently eaten. If someone eats, say,



Triglyceride

Kentucky Fried Chicken, and we were to draw their blood right after, the test results would read "the specimen is lipemic and may affect results" meaning that there is fat floating in the blood that you can see with the naked eye; yes, that's right, fat globules floating around the little vial of blood. All the fat in our diet is absorbed through the intestinal tract as triglycerides; the more fat you eat, the more triglycerides circulating through the arteries until it is processed and either stored as fat or adipose tissue, or converted into cholesterol via the liver.

Triglycerides are proinflammatory, they are irritating to the intima causing some of the changes discussed above. Our arteries don't like us eating a lot of fat. Even if our cholesterol is pretty good, if our triglycerides are high, the inside of our arteries are assaulted; we may not have a lot of plaque forming on the outside of the vessel, but it is what is going on on the inside that is critical here. Aside from the fat in our diets, there are other factors that can lead to an elevated triglyceride level; it has to do with carbohydrate metabolism. Alcoholics, diabetics and people who eat a diet high in simple carbohydrates tend to have elevated triglycerides levels as well. The connection is not as straight forward as that with the fat in our diet, and a proper explanation is beyond the scope of this fine publication; suffice it to say, those who eat a lot of breads, sweets and all things white: white bread, white rice, pasta and potatoes, and who indulge in an excess of processed foods sweetened with refined sugar are at risk for developing hypertriglyceridemia.

Moderation is the key to all things. But awareness is important. There is a lot of truth and validity to all this you hear and read concerning healthy diets. A healthy diet has less then 30% fat, ample protein, and should be rich in complex carbohydrates. It doesn't mean that you can't have a cookie or a little ice cream at your monthly AAA potluck dinner meeting, or that you can't have a glass of wine, or that pizza shall be forever banned from you cuisine. There are no cans and cannots here, we just need to take each bite seriously considering the implications and accepting the consequences. Kentucky Fried Chicken for instance, I don't think there are many things less healthy then Kentucky Fried Chicken, and if you want to argue that there are few things that taste as good I would like to stand up to that challenge and show you how healthy eating can be just as delicious. So stayed tune for heart healthy recipes in future editions of Propwash and tune in next month when we tackle fasting blood sugars and trunkal obesity.

Articles Please!

From the new editor - Andy Robinson

Thanks to previous members submitting articles, photos and content for Propwash - however, we need help. Doc. Clothier has stepped up to the plate....now I just need some other keen and able members to help too. Maybe Ravi will be writing on flying his Cessna 140, or can some of the AAA members whom have recently upgraded their aircraft with some new gadget care to share their experience with the rest of the AAA membership? Perhaps someone has just flown to an interesting airport, or a new plane? Have you recently obtained a new license or rating - Propwash would like to know.

Watch out - there's a TFR About

In recent months, there have been several TFRs in force for California. Some were for forest fires, others for Presidential and other VIP visits. The latest TFRs are related to unmanned aerial vehicles (UAV).

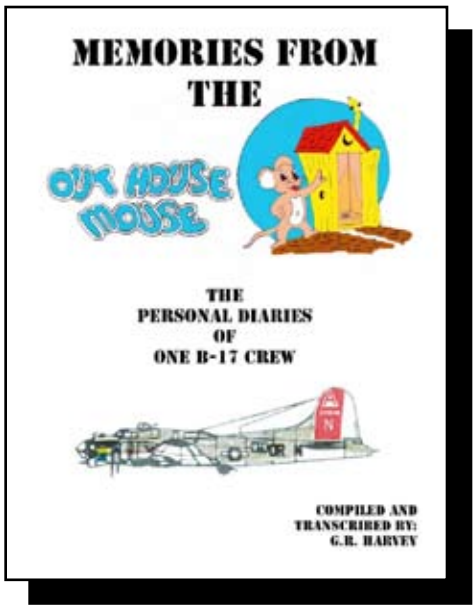
Beale Air Force Base, located a mere 19.8nm NW from Auburn, will be enforcing upcoming TFRs when they are flying UAVs.

Remember to check with the FAA and government information sources to determine if there is a TFR in effect. With respect to this Beale TFR, Northern California TRACON, (916) 366-4080, is the FAA coordination facility.

Aviation Books

October 2006's Guest Speaker

Last month's AAA meeting had Robert Harvey talking about his father's wartime diaries. In case you were unable to attend, you may not be aware that Robert published a book of these diaries, illustrated with some photos of the planes and crew. The book is available from book stores, and online merchants such as Amazon.com. (One can find the book by searching for it's ISBN number - 1553695232).



Below is summary of the book's contents:

Book Description
The following are the combined personal diaries of the last World War II combat flight crew of the Boeing B-17-F Flying Fortress named "Out House Mouse". Each of these diaries has been transcribed from the original or from a first generation copy of the original provided to me by the crewmember or his immediate family.

My father was 1Lt. E.J. ("Joe") Harvey, the pilot on this crew and it was the transcription of his diary that began this project. Lt. Harvey's notes were hand-printed in block capital letters and an effort has been made to retain that personality in this transcription. For each combat mission, Lt. Harvey also included carefully cut and folded newspaper accounts, which have also been transcribed and where possible, the source newspaper identified. An effort has been made to duplicate the newsprint type, column size and position as much as possible to retain the look of his original diary.

From his diary, I learned the names of the other members of his crew and their hometown at that time. Using that information, I've been able to locate all the members of the crew or their family. Six others have provided me with copies of their diary for which I am most grateful and I have included transcriptions of these diaries in this combined record. Because Lt. Harvey provided an entry for every day, even when not flying, and because his diary covers the greatest period of time, from the first of January through the middle of June 1945, his diary provides the date stamp and serves as the basis for all of the other records.

This combined chronological record includes the seven available records of all 9 members of this last combat crew of the "Out House Mouse". Thus, this record includes the diary of 2Lt. Phil Darby, the co-pilot, provided by Mr. Darby; the diary of 2Lt. Marty Raber, the bombardier who actually sent me his original diary and his scrapbook for my use in preparing this book; the diary of 2Lt. Paul Katz, the navigator for the crew, provided by his wife, Joan Katz; the diary of S/Sgt Niel C. Jorgenson, the crew's flight engineer, which has been provided by his daughter, Ms. Susan Lunt who also provided the computer scans of the photographs of the flight crew and their signatures at the beginning of this book. The remaining records are the "Mission Sheets" of the ball turret gunner, S/Sgt George H. Odenwaller and the diary of the tail-gunner S/Sgt Walter M. Limberger. Both of these gentlemen provided me with a hand-written reproduction of their diary. The

last record of course is that of Lt. Harvey from which all of this has grown. Following the entries of the pilot and co-pilot, the entries from the other five diaries are arranged in a nose-to-tail order of that crewmember's position aboard the "Out House Mouse".

Name That Plane!

Last month's plane:

Pitts Model 12

This month's plane:

Auburn Aviation Association			
Officers 2006			
President	Evan Wolfe	(530) 637-5107	wolfeshark@cwnet.com
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December Meeting

Wednesday December 6th, 2006
6:00pm

Annual AAA Christmas Party
Turkey, Ham, and Bread will be provided!

A-L : Side Dish
M-R: Salad
S-Z: Dessert

(Potluck information is divided by first letter of your last name)