



NEWSLETTER

Carb Heat

Hot Air and Flying Rumours

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Next Meeting:

Thursday, March 15, 2001 8:00 PM
Canadian Aviation Museum

Featuring:

Cozy IV with Subaru SVX by Phil Johnson

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President's Page
by Gary Palmer

Spring is only three weeks away according to the calendar, but you wouldn't know it based on the weather. Winter still has a firm grip on us and doesn't want to let go. This will likely mean a late start to the flying season; particularly for those tied down in the grass. Just a reminder to be wary of soft ground as things start to thaw later this month or next. Every year it seems someone gets stuck on the access road or leaves huge ruts on the apron for others to fill in after their stealth departure. Don't let it be you!

Beautiful Hatz ready to fly this spring

Many of our members will remember the beautiful Hatz biplane that Bob Crook was building at Smiths Falls, that we were fortunate to see a couple of years ago. Well, during my most recent visit a couple of weeks ago, Bob was truly on the last mile. All systems installation, paint, and upholstery is complete. I helped Bob with installation of the belly panels. About all that is left is rigging the wings, final inspection, and the inevitable wait for the wheels of bureaucracy. Hopefully Bob gets clearance to fly before Spring has departed; his goal is to fly to Oshkosh this summer. I expect Bob will pick up an award for his workmanship; it is truly inspiring.

Glasair III a continuing labour of love

Not satisfied with the successful first flights of his awesome Glasair III; **Stan Ironstone** has been spending the last while adding extended wingtips to increase fuel capacity and rate of climb; as usual, a homebuilt is never done. Stan also plans to fly his bird to Oshkosh to keep Bob company; however I imagine he will be spending a lot of time on the ground waiting for Bob to catch up. There just won't be any living with these two guys after they have spent a few days wallowing in the admiration of fellow homebuilders at Osh!

February Meeting

Our February 15th meeting featured our very own **Curtis Hillier** who gave a fascinating overview of the technology behind a patented technique known as D-Sight used to detect minute surface defects on metal panels. He also demonstrated a simple low cost technique for home workshop use, being brave enough to subject a Davis aileron to the ultra critical eye of D-Sight. Thanks Curtis, for sharing your knowledge and enthusiasm!

Workshop Musings

It is always more than a little disappointing to visit the chapter workshop and discover that we still seem to have members that never learned the meaning of respect for shared club property. Dick and I found this past weekend that sockets and a quarter inch drive from Our socket set have disappeared. We also found the lathe in need of repair again. It also seems strange that while members are happy to fill the garbage cans, somehow it is always a chapter executive member that has to empty them. Come on guys, it really isn't that hard to live up to the EAA ideal that "EAAers Don't Litter".

March 15th meeting @ NAM: Cozy IV with Subaru SVX by Phil Johnson

Our March 15th meeting will feature one of our new chapter members, but an old friend, **Phil Johnson** who will share the trials and tribulations of a true homebuilt project. The Cozy IV is a plans built, side by side canard design that Phil has been working steadily on for several years. Some of you will recall a presentation he gave a few years back. To top it off, Phil is equipping his bird with a high tech Subaru SVX 6 cylinder engine of 230 HP.

Phil has also volunteered to host a show and tell of his project at his home workshop on Saturday March 17th at 10:00 AM. Phil is located off of Hwy 7 in the estates adjacent to the Canadian golf club; maps will be available at the next meeting for those interested in attending.

I am sure you won't want to miss this one! Meeting time as always will be 8:00 PM start.

See you there. **Gary**

Pilot's Eyes
Submitted by George Elliott

This article appeared originally in the Medical section of Wings Magazine (Issue 6, 2000)

At least once a week, a pilot will call me and say, "I don't want to wear glasses any more but can I still fly after having my vision corrected with laser surgery?" The answer is generally yes, as long as your surgery is a success.

There are at least 18 different variations on the theme of refractive eye surgery to improve vision and techniques continue to be developed and refined. The three most common types are: Radial keratotomy (RK, which is no longer recommended); Photorefractive keratotomy (PRK); Laser in situ keratomileusis (LASIK). Each of these techniques changes the shape of the cornea, the clear part of your eye in front of the pupil.

Your cornea acts just like the lens on an 'instamatic' type of no-focus camera – it can provide clear images over certain distances. A cornea gets some extra help from the lens inside your eye and this help is mainly used for close-up work (e.g. reading); it's like adding a 'macro' lens to your camera. If your camera (or eye) has a design error such as the lens (cornea) not matching the size of the camera, the images will be out of focus. In myopia (nearsightedness), the eye is too long for the shape of the cornea and light rays for the shape of the cornea and light rays for a crisp image converge in front of the retina (your eye's version of the film in the camera), so the image is blurry. You can see things better when they are closer. In hyperopia (farsightedness), your 'camera' is too small so the cornea's best focus of the image would be behind the eye. Hyperopic eyes can see objects clearly in the distance, but have trouble up close. If the curve of your cornea is also out of alignment, then you have astigmatism too. The best way to describe this is to imagine looking at a basketball from the side: it has a nice spherical shape. Now look at a football from the side – it's not spherical, and that will give you an idea of what an astigmatic cornea looks like.

Through careful calculations, your eye surgeon can plan the technique that should improve your vision, ideally to about 20/20. Keep in mind that these types of eye surgeries do not correct the need for glasses when it's due to presbyopia. This is a normal, age-related change which usually starts in your forties and is due to the lens inside your eye naturally getting thicker and less able to focus on near objects.

RK was the first widespread method, in which a sharp blade made deep cuts to the cornea to change its contour. Imagine a peeled orange it's quite round, but if you start peeling the segments apart it will flatten out. With RK, it was found that the cuts had to be so deep that the cornea had trouble keeping stable in day-to-day conditions, kind of like the orange being very floppy if you pull the segments apart too far. As a result, too many RK patients had problems with variable vision and this procedure has been largely abandoned.

PRK uses a laser to resurface the cornea, like a super-accurate polishing machine. LASIK is a little bit different, in that the cornea is cut at the edge, lifted as a flap, and then the central part underneath is scooped out to change the shape. The experience with both of these so far has been much more favourable. Whether your eye surgeon recommends PRK or LASIK will depend on several factors, such as the type of eye problem you have and the amount of refractive error to be corrected.

If you aren't sure about having eye surgery, you can keep using glasses or contacts. Canadian Aviation Regulations stipulate certain parameters for the refractive error your eyes should have (i.e. how strong your glasses can be). However, if your eye specialist can document otherwise healthy eyes, Civil Aviation Medicine (CAM) can often apply flexibility to your case, even if you wear thick glasses. So, from a medical certification point of view, refractive eye surgery is not considered medically necessary and is a personal decision on the part of the pilot.

You may have some practical reasons for considering eye surgery, such as convenience, improved vision when playing sports, and less hassle with foggy or rainy weather. The large majority of people are pleased with their decision and surgery improves their vision satisfactorily (though sometimes a second 'touch-up' procedure is necessary to achieve the best correction). However, a few people don't get the results they were hoping for and this can have important consequences when it comes to flying or even driving. Worsening vision, especially contrast vision at night, is a complication that is hard to predict, as are haze/glare/starburst patterns, which can be like looking through a dirty windshield. Sometimes these complications improve with time, but not always. Refractive surgery hasn't been around for many years, and long-term effects may not be completely known for a generation.

If you do opt for surgery, discuss your situation with your eye specialists, and specifically tell them you are a pilot. Eye surgery will automatically ground you until cleared to fly again by CAM at Transport Canada. Don't plan on soloing for at least three months if you are having up to six diopters of corrections, and six months if more correction is necessary. To get back flying again, you will need to arrange for eye check-ups at three, six and 12 months. Your eye specialist will need to forward a special questionnaire to CAM and typically you will get the all-clear quite quickly. If you need a copy of the questionnaire, contact CAM or your aviation medical examiner.

A special note of caution is for those pilots who are hoping for a military career. Laser eye surgery is not permitted and will disqualify you from any operational military air crew position. A regular eye exam may not pick it up, but all air crew selection candidates undergo special corneal mapping which will detect it anyway. However, if you plan on a civilian flying career, the good news is that there are currently no restrictions other than showing that your eyes are functioning normally after your surgery.

Update On Category 3 Medicals

There is some good news for most Category 3 (private) pilots. There will be a few exceptions, usually for medical reasons, but most pilots who hold a medical certificate that was valid as of July 15 are eligible.

So, a pilot who is under 40 can now have a medical certificate with a total validity period of five years, and a pilot who is over 40 may have a certificate that is good for up to two years. However, medical certificates beyond 24 months are valid inside Canada only.

Although the validity period for commercial and air transport pilots (Category 1) hasn't changed, there are Category 1 pilots who do let their privileges 'dropdown' to Category 3 validation periods as well.

Dr. Cervenko is the Civil Aviation Medical Officer for Transport Canada's Pacific Region. He is also a flight surgeon in Canada's military reserve. The opinions expressed here are the author's and not necessarily those of Transport Canada or the Department of National Defence.

Why Men Need a GPS Submitted by Irving Slone

Taken from the February 3, 2001 Citizen (written by Dave Barry)

I'm a big fan of technology. Most guys are. This is why all important inventions were invented by guys.

For example, millions of years ago, there was no such thing as the wheel. One day, some primitive guys were watching their wives drag a dead mastodon to the food-preparation area. It was exhausting work; the guys were getting tired just WATCHING. Then they noticed some large, smooth, rounded boulders, and they had an idea: They could sit on the boulders and watch! This was the first in a series of breakthroughs that ultimately led to television.

So, we see there are vital reasons why guys are interested in technology, and why women should not give them a hard time about always wanting to have the "latest gadget." And when I say "women", I mean "my wife".

For example, as a guy, I feel I need a new computer every time a new model comes out, which is every 15 minutes. This baffles my wife, who has had the same computer since the Civil War and refuses to get a new one because – get THIS for an excuse – the one she has works fine. I try to explain that, when you get a new computer, you get exciting new features. My new computer has a truly fascinating feature: Whenever I try to turn it off, the following message, which I am not making up, appears on the screen:

"An exception oE has occurred at 0028:F000F841 in VxD-- -. This was called from 0028:C001D324 in VxD NDIS (01) + 0000%AA0. It may be possible to continue normally."

Clearly, this message is not of human origin. Clearly, my new computer is receiving this message from space aliens. I don't understand all of it, but apparently there has been some kind of intergalactic problem the aliens want to warn us about. What concerns me is the last sentence, because if the aliens are telling us that "it may be possible to continue normally", they are clearly implying that it may NOT be possible to continue normally. In other words, Earth may be doomed, and the aliens have chosen ME to receive this message. If I can figure out exactly what they're saying, I might be able to save humanity!

Unfortunately, I don't have time, because I'm busy using my new GPS device. This is an extremely important gadget that every guy in the world needs. It receives signals from orbiting satellites, and somehow it figures out exactly where on the earth you are. My wife argues that it's easier to just ASK somebody, but of course you cannot do that, if you truly are a guy.

I became aware of how useful a GPS can be when I was on a plane trip with a literary rock band I belong to called the Rock Bottom Reminders, which has been hailed by critics as having one of the world's highest ratios of noise to talent.

We were flying from Chicago to Boston, and while everybody else was reading or sleeping, "Roger" and "Steve," who are both fully grown men, were staring at their GPS devices and periodically informing each other how far we were from the Boston airport. My wife, who was confident the airplane pilot did not need help locating Boston, thought this was the silliest thing she had ever seen. Whereas I thought: I NEED one of those.

So I got a GPS for Christmas, and I spent the entire day sitting on a couch, putting it to good use. Like, I figured out exactly where our house is. My wife told me this was exciting news. I think she was being sarcastic, but I couldn't be sure, because I had to keep watching the GPS screen, in case our house moved. I also used my GPS to figure out exactly how far my couch is from LaGuardia airport (1,103) miles. There is NO END to the usefulness of this device! If you're a guy, you need to get one NOW, so you can locate yourself on the planet. While we still have one.

Dave Barry is a humour columnist for the Miami Herald

New Clubhouse Keys by Dick Moore

Due to technical reasons, It has become necessary to change the lock at the EAA Clubhouse and therefore we will need to issue new keys. If you are a full member be sure to collect a key at the next meeting. In addition I will also be issuing keys for our machine shop for those that qualify. All full members have a right to have full access to all facilities; however, because of the nature of a machine shop it can be inherently dangerous for the uninitiated. There are two main reasons for becoming qualified 1. So you that you won't damage the machines. and 2. So that you won't hurt yourself or at least, if you do, its because you did something dumb and not because you didn't know better. You can then screw up your own material all you want. You can become qualified if you take or have taken any machine shop program at any high school or you have extensive previous experience with other machine equipment or you receive personal instruction from someone in the club that is qualified and can demonstrate to a member of the executive that you know the rudiments of safe machine handling and can point out the location of the first aid kit. There will be \$2.50 charge per key to cover the cost of duplication

Machine Shop and Tool Room Woes by Dick Moore

Everyone knows the expression that it only takes one bad apple. Well it only takes one person in the club to destroy everything that your executive has tried to do on behalf of the entire membership. i.e. to provided the basic machining facility, metal working equipment, diagnostic and repair tools as well as some basic tools to be used if you didn't remember to bring your own. I take it as personal defeat when I find, as I have on a number of occasions, things like the lathe covered in some ones debris from their last job that they uncaringly left for the next person. Things like a box of sockets that was put back with a number of missing sockets and accessories. Things like carbide lathe tool bits chipped and broken left as though the next person can make use of this garbage. When these things happen it is not in the nature of what EAAers promote or portray to the world. I'm sure we can do much better.

Come on, if you have been using the equipment and something needs replacing because you broke it or lost it, break down and replace it or at least put some money in an envelope and deposit it and let us know what needs replacing. While you are at it, put in a couple of extra bucks and maybe we can afford to buy some extras and begin to build up our facilities. If you plan to use the lathe, you had better purchase a belt because this has become a high use item and the club will no longer supply them. Check with Irving Slone or Gary Palmer for a source. The facilities belong to everyone as much as anyone so if something needs to be done or repaired, it's as much your responsibility to see that it gets done as anyone else's.

Classifieds

Place your ads by phone with Charles Gregoire @ 828-7493 or e-mail to cbgregoire@sympatico.ca
Deadline is first of the month. Ads will run for three months with a renewal option of two more months.

Looking for a Drum Buffer to Buff aluminum. Looking to buy, rent or borrow. Anyone with information contact:
Irving Slone 613-722-0359 11/2000

Articles Wanted

I am always interested in receiving submissions for this, your Newsletter. You may bring articles to the monthly meetings, or mail information to the post office box, or send me an e-mail attachment to:

cbgregoire@sympatico.ca



EAA Chapter 245 Membership Application

NEW:___ RENEWAL:___ DATE:___/___/___
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Annual Dues: January 1st to December 31st. (porated after March31st for new members/subscribers).
Associate Member ___: \$30.00 Newsletter plus Chapter facilities
Full Member: ___: \$55.00 Newsletter, hangar, workshop, tiedowns.
(Note: there is a one time \$200 initiation fee when you become a Full Member)
Newsletter subscriber ___: \$30.00 Newsletter
Note Associate and full members must also be members of EAA's parent body in Oshkosh WI, USA

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