EAA Chapter 1410 High River Newsletter

EAA 05007 OCTOBER, 2005

This Month:

Next Meeting
Greisdale/Dueck Hangar
2nd one in on south side of road
Nov 3, 1900 h
Speaker: Hal Rainforth

Chapter Meetings: A Monthly Celebration of Aviation

"But it's really about the People" …(Paul Poberezny)

Many years ago, Paul expressed this simple compelling vision that continues to ground EAA after fifty three dynamic years. As '1410 High River' navigates the early stages of inception and growth we can affirm that we still love to fly and build, but as Paul said 'It is really about the people'. The people of this chapter continue to guide its activities and projects and to some extent this changes as the people come and go, work hard and rest; but the early vision of the chapter has been focused on education.

Ken Grandia, Meteorologist

learning and sharing knowledge of home-building.

So, it seemed to be a easy and well marked path for this new chapter to follow and this month, a good time to thank the speakers who have shared their 'time and treasure' with their friends here at 1410 High River.

In May, Troy Branch shared his love of aviation and highlights of his flying.

As we formed up in the spring of 2005, education was a prominent voice. Preparations for SportAir were winding up with fifty five students and four workshops on the airport 'campus'. The airport itself has, for several years been identified with homebuilding and there continues to be a vibrant community of people

Troy Branch celebrates "tipping the canoe" on his RV9.

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Quotable Quotes

If helicopters are so safe, how come there are no vintage/classic helicopter fly-ins?

Jim Travenner

If we were in the funeral business, people would stop dying.

Marint R Shugrue, Vice-Chairman of Pan Am.

Someday I would like to stand on the moon, look down through a quarter of a million miles of space and say "There certainly is a beautiful earth out tonight"

Lt. Colonel William H Rankin The Man Who Rode the Thunder

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In June, Rob Greisdale described the journey to airport renewal for the High River Regional Airport.

In July, Rob & Eileen showcased the airport and homebuilding with a hangar tour.

In August, Jack presented Oshkosh, 2005

In September, Ken Grandia presented the "Alberta Hail Project" and, in the Newsletter, Lionel wrote fondly about his Cardinal.

Ken sent us this shot of the Conquest C-GRSL that was configured for thunderstorm research. Note the gust boom on the nose and the sensor pod under the fuselage.

In October, Hal Rainforth presented Part I of his fascinating career in aviation, and at the November meeting, Hal will conclude this series. You don't want to miss it!

Typical Destination for Hal Rainforth, Commercial Pilot, flying 'the north.

Another voice heard at that early meeting clearly said that sometimes we just need to have fun. That mission will soon be accomplished with Lionel, Neil and Cindy taking on the lead for a 'good time' and a raffle of the Young Eagles jacket organized by Paul Campbell.

So we are now writing a new page in the development of the chapter. We know we can sponsor fly-ins, large and small, we can organize and fly Young Eagles, we can assist members flying and building, we can share knowledge and experience.

Now we need to know if we can just 'get down and have fun'. Good luck to all of you!.

Most Pilots are happy people. They Like Fun

Lauren Paine

President's Message

Goderich and EAA Workshops in Ontario:

Since our last newsletter, we have 're-introduced' EAA to Central Canada. Specifically, our efforts were directed to three venues: The first was the 50th Anniversary of Homebuilt Aircraft in Canada, held at Goderich on August 24th thru 28th. The second was our EAA SportAir Workshop held at EAA Chapter 245 at the Carp airport (Ottawa) on September 17th and 18th. The third was again, our EAA SportAir Workshop at Kit-Plane Builders Inc. at Mississauga (Toronto). Both workshops returned a profit, but not sufficient to cover our Goderich investment in promoting EAA's presence in Canada.

50th Anniversary of Homebuilt Aircraft in Canada, Goderich, Ontario:

Jim and Val Gunnlaugsen loaded up the truck with a crate containing our sheet metal tools, as well as door prizes, give-aways, hand-outs, and EAA literature, and left for Ontario on Thursday, Aug. 18. Jean and I left in Jean's RV-9A on Saturday, August 20. We all arrived at Goderich for the set-up day, Aug. 24. By nightfall we were ready. Thursday morning arrived, but sans participants or aircraft. Not to be deterred, we struggled with a continuing line of interested (although few) people who came to see what the EAA banner and activity was all about. The attendees grew steadily and although much less that expected, we did get to talk to many interested individuals, we sold memberships in EAA, and we advertised our upcoming EAA SportAir Workshops.

On Thursday morning, together with Wayne Juniper of Transport Canada, we put on a forum for interested spectators, entitled: "What's involved in Homebuilding". I spoke about the practical aspects, kits, quick-build, etc. and Wayne covered the legal aspects of building, inspecting, and licensing your homebuilt. I thank Wayne for his input and his power-point slides.

Friday and Saturday, the crowd increased and Jim, Val, and Jean continued massaging the crowd with their enthusiasm and cheer. There is no doubt — everyone enjoyed their visits to our booth. We certainly won the 'dead-grass' award over other vendors.

Saturday night was the awards banquet. Paul Poberezny was unable to attend, and Vern Jobst stood in for Paul with a power-point presentation of the growth of homebuilt aircraft from the Wright Brothers at Kitty Hawk to Burt Rutan's epic space flight and the receipt of the $10 million dollar Ansari X prize. (You will remember Vern for his cross- the country tour with the replica Spirit of St. Louis, a few years back.) In addition to our group, Joe Norris, chief technical spokesperson for EAA, Oshkosh, was also in attendance, and brought in-depth technical knowledge and enthusiasm to all that he visited with. The MD-RA bussed in all of the inspectors with wives and partners to attend the banquet.

All in all, with lower than expected attendance, the Goderich effort was very positive and certainly enjoyed by everyone.

EAA SportAir Workshop, Carp, (Ottawa), Ontario:

We held the first ever EAA SportAir Workshop in Central Canada at Carp, on Sept 17 and 18. It was hosted by EAA Chapter 245 and held in the members' hanger.

Attendance did not meet expectations. We had hoped for 20 students, and we ended up with only 11. The students enjoyed the course of studies in 'Sheet Metal Basics', and without exception, asked that the course, together with additional courses be considered in the future.

This EAA Chapter charges its members various fees depending on their chapter needs. 'Social' membership fees are set at $35.00 per year, and members wishing to use the hanger during the year are accessed an initial joining fee of $250.00, and then $55.00 annually. This entitles them to book and use the hanger free of charge. The hanger is not heated, but does come with a very complete set of tools, including a metal lathe, an English wheel, shear, brake, drill press, etc.

My absolute highlight at Carp was the unexpected fly-over of the Wartime Heritage Museum's Lancaster. We heard an aircraft that sounded distinctly different, and all of us rushed out of the hanger to see this magnificent sight. Will we ever see it again? There is some interest in seeing it at Oshkosh, flying in formation with the B-17, and escorted by a P-51 and a Spitfire.

EAA SportAir Workshop, Mississauga (Toronto), Ontario:

The following weekend, September 24 and 25, saw us at our second EAA SportAir Workshop held at Kitplane Builders Inc., at their site in Mississauga.

Again, attendance was down to only nine students. (We had four 'no-shows', who were going to pay at registration.) The students were enthused about the workshop, and again reflected the hope that it would be repeated and additional workshops could be added.

In evaluating the two workshops, I believe our efforts at registering students lacked in several areas:

- We didn't start early enough with advertising through EAA.
- I don't know how aggressively EAA Chapter 245 or Kitbuilders promoted the workshops.
- These workshops were addressed through our Chapter, rather than EAA Oshkosh. This created a certain amount of confusion and miss-communication.

Charlie Becker of EAA says that promotion of an EAA workshop

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Featured Article: Corrosion Protection

From the Tech' Desk . . .

EAA'S HOMEBUILT AIRCRAFT COUNCIL REPORT, Nov., 2005

CORROSION PROTECTION

"Corrode: *1. to eat away gradually as if by gnawing, especially by chemical action; 2. to impair, deteriorate; . . . 3. gnaw, eat, consume, erode; canker, rust, crumble."*

"Corrosion: *1. the act or process of corroding; condition of being corroded; 2. a product of corroding, as rust."*

The above definitions are as listed in the Randon House Dictionary. I like to think of the process of corrosion as nature's way of returning a metal or an alloy to its original state as found in ore.

To ensure a long life to your aircraft project, as well as to ensure ongoing airworthiness and safety, corrosion protection is an issue you will want to explore. This topic has many varying proponents, and each approach has its own supporters. When I built my RV4 back in the late 90's, Van's instructed builders to pay a great deal of attention to corrosion protection. We were encouraged to apply a good corrosion protective substance to each mating part of an assembly, and there was even talk about submersing solid rivets in this substance before driving them.

Today, the emphasis has shifted almost 180 degrees, and builders are saying that their aircraft have been flying in the Northwest USA for over ten years, without any corrosion protection and without any problems. Sonex is using a 6061 alloy, and is suggesting that no additional corrosion protection is needed.

I have restored a pre-war Luscombe 8C that never had any corrosion protection applied during manufacture, and today little signs of corrosion are visible. However!

A Caveat:

Be aware that under the Canadian MD-RA Inspections Checklist, Question #6, 'Sub-assembly Inspections' asks: "Are interiors of box sections treated against deterioration (eg. Zinc-chromate, varnish, etc.)?" And this same question is repeated for the fuselage, wings, control surfaces, and empennage. How you would square having no corrosion treatment with your airworthiness inspector, is open to question.

My Approach:

Being from the old school, I know that if you place any two dissimilar metals together, and introduce an electrolyte such as salt water to come into contact between them, you have an effective battery with chemical action taking place. Even if you place two similar sheets of aluminum together in the presence of moisture, you will see oxidization and deterioration of the metal. Consequently, I want a protective coating between any assembled pieces of my homebuilt aircraft.

Which Product or Process to Use?

Let's examine the various products and processes that are available. Each builder can then select his/her appropriate choice.

Alodine: is an electro/chemical conversion coating that leaves a conductive aluminum/chromium phosphate coating on the aluminum. It is actually a proprietary process, but because of its use in industrial and military applications, specifications; MIL-A-8625 and MIL-C-5541, have been developed covering its use and application. Both are informative. Alodine provides an excellent base for painting.

Anodize: is an acid treatment that forms a nonconductive aluminum oxide layer on the part. The anodizing process causes the part to grow, and if dimensional tolerances are important, they need to be taken into consideration. It can be done by yourself in your own shop.

Both alodining an alodizing add a degree of hardness to the base metal. This will increase its susceptibility to fatigue, but reports that I have seen suggest that the life cycle reduction of such treatment would not effect the normal life span for a homebuilt aircraft.

Zinc Chromate Primer: A long-time standard in the aircraft industry, Zinc Chromate has come into disuse because of its health hazard. It is still used commercially under controlled conditions including ventilated spray booths and operator respiratory gear. It is virtually impossible to purchase this primer in the familiar spray-can form in retail outlets. If you choose to use this product be aware of its chemical hazards to your health and follow proper safety procedures.

Urethane Paints: A good one-part primer with excellent results. Again follow the manufacturer's safety instructions in its application.

Two-part Epoxy Primers: probably offer the best corrosion protection you can achieve. Very dangerous to use, and proper use of equipment with outside respiratory air is an absolute requirement. Do not rely on charcoal masks for protection. This stuff will kill you if you don't observe safety precautions.

Fig. 1
A Typical HVLP Paint Spraying System includes Dual Compressor with Ventilation Air to the Operator's Face Mask. The Compressor is located outside of the building thereby ensuring only fresh air to the operator.

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President's Message Continued...

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should start about three months prior to the dates held. In conversation with Charlie this last week, he suggested that future Canadian workshops be administered through EAA, Oshkosh, with EAA simply forwarding the revenues to our Chapter. This would allow the administration to be handled in an existing and proven structure. Our chapter would still be in the loop with the revenues and expenses, but EAA would look after administration, credit card charges, advertising and promotion, etc. Seems pretty good to me! I'm particularly grateful that EAA is allowing our Chapter to continue to operate these workshops in Canada.

Summary:

Our objective was to promote EAA's presence in Canada. We hoped to finance this through the EAA SportAir Workshops. In reality, the workshops returned $7367.20 in revenues, at a total cost of $6214.43. This left a profit of $1152.77. If our attendance had been to expectations, our profit would have been in the order of $8137.00. Would have, could have, should have!

In contrast, our investment in Goderich cost us $6050.26. This then leaves a deficit of $4897.44. I will cover this personally, to be recovered from profits at future workshop/s.

Although we have been asked to hold workshops in Edmonton, Regina, and Nanaimo, our next scheduled workshops are here in High River, April 1 and 2, 2006. At the present time we are looking at holding two; 'sheet metal basics', and 'fabric covering' here. Both can be offered with very little expense, and if we work on attendance, we will do well.

Conclusion:

Our summer foray into Ontario resulted in an excellent, unobtrusive entry to re-establish EAA's presence in Central Canada. As you may be aware, EAA Chapters were taken over in large by RAA in the 1988 split, when EAA Chapters went from 25 down to 8. Concurrently, however, EAA membership in Canada has continued to grow steadily, to about double it was at the time of the split. Our friends in Ontario support EAA but are inclined not to show this support publicly. Continued efforts will pay off.

EAA continues to be the single international organization dedicated to the support, promotion, and government advocacy, for all aviation enthusiasts. It enjoys an excellent relationship with both Transport Canada and the FAA, promoting and protecting our freedoms to fly and to build. It has over 100 Regional Fly-ins throughout the USA each year, many attended by Canadian enthusiasts. EAA Chapter 1410, together with the High River Regional Airport are in an excellent position to make our venue the first Canadian EAA Regional Airshow and Fly-in.

Jack Dueck

Kitplane Builders Inc. is a pro-builder company, where homebuilders can get help to build their aircraft under the Canadian Rules for amateur-built aircraft. It is owned and operated by Paul and Sean Fleming. Currently they are helping builders build a Van's RV7, a Glastar, and a Zenith 200.

From the Tech' Desk . . . Corrosion Protection - *con't*

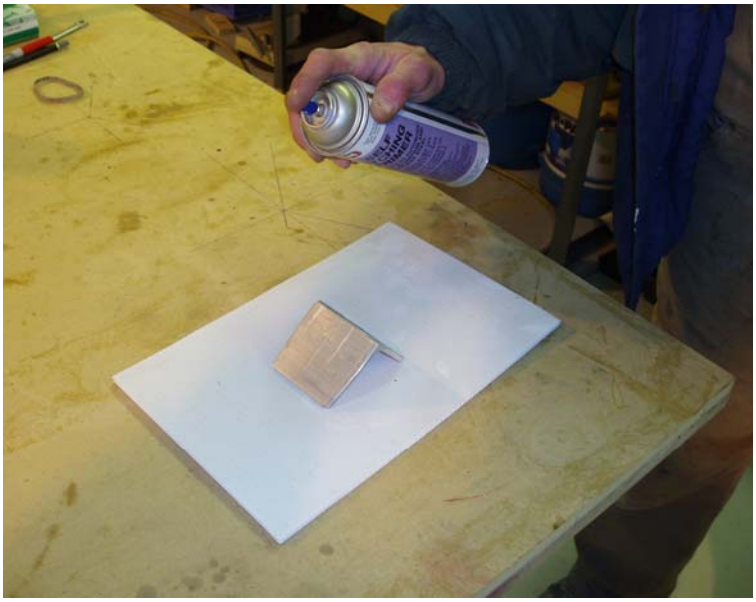

Fig. 2. One-part Self Etching Primer being applied to a Component

One-part Self Etching Primer: I have used two different products that fall into this category:

Marhyde, Single-stage Self Etching Primer
Bond Corporation (An RPM Company)
3700 Atlanta Industrial Parkway NW
Atlanta, Georgia 30331
www.bondo.com

and

ESM, Self Etching Primer
(Steel, Aluminum, and Stainless Steel)
SEM Products Inc.
Charlotte, NC 28217-1546

Both of these products are available in a grey colour, (but they do not match, so stay with whichever one you choose). Both are also available in a good quality 15 oz. Spray can.

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EAA 05007

Chapter memberships are $25 for singles and $35 for families, along with current membership in EAA. Contact Jessica Pugh or any "Chapter Volunteer"

Attn: Jessica Pugh
Box 6084
High River, AB, T1V 1P7
Ph: 403-601-6406
Fax: 403-652-1085

Chapter Pres: Jack Dueck
Vice President: Jum Gunnlaugsen
Secretary/Treasurer: Brain Jones /Jessica Pugh
Young Eagles: Jessica Pugh
Community Outreach: Rob Gresdale & Eileen Bahlsen
Neewsletter: Jean Dueck

1410 aeromart

Prop" for Sale: 1976 Cessna 172

The prop' has never been shortened (it still is 75 inches long!) and has never been filed due to leading edge damage. The engineer on my last 100 hour inspection spotted a slight misalignment of the holes in the hub in relation to the outside edges. He contacted MaCauley and they admitted it was a manufacturing defect, but they would not do anything to accommodate the replacement. This prop' has functioned well for nearly thirty years and I see no reason for it not to do the same for another thirty—but my engineer said I would have to buy another certified one for him to complete the 100 hour - so if anyone wants a good prop' for a homebuilt (150 horsepower Lycoming) please call me, Gordon Lennon, at 403-249-5032 (Calgary) or at my email grlennon@telus.net

Aircraft Weight & Balance Scales: One set of 3 aircraft beam scales. Rent them for a weekend for a $25.00 donation to the Chapter. Call 403-652-7333.

From the Tech' Desk . . . Corrosion Protection - *con't*

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So where does this leave us?

If you choose to use some form of corrosion protection in the assembly of your aircraft components, you have the above choices available. Your considerations might be:

- If I use a specific product, do I have the appropriate equipment and facilities available, especially with regards to my safety in its application?
- How much financial and human resources am I prepared to give?
- How much time am I prepared to allot to this process?
- How much weight does this add to my project?

I use the self etching primer for several reasons: I want to have good corrosion protection, and this product satisfies this requirement. I like the ease of a spray-can application; its simple, fast, and no clean-up is required. I like its coverage; it gives a pleasing 'finished' look to components. It dries fast, within seconds, if you apply a little heat with a heat gun, thereby allowing me to assemble parts immediately. It is almost odor free, and I don't have any after effects from its use.

I prime all component parts before assembly. I also prime the entire inside of my aircraft, tail surfaces, wings, fuselage, and control surfaces. This requires about a dozen 15 oz spray cans, and if the actual paint component in a can represents 50% of its weight, this would add less than 6 pounds of weight in total.

I do not prime any of the outside surfaces, however, some primer will be visible, where skin components overlap. My final priming and sealing prior to painting the aircraft, will depend on the paint and scheme chosen, appropriate to the product used.

A final word of caution: Always follow the manufacturer's guidelines and instructions for safety in the use of their product. Safety is not accidental. It is an attitudinal commitment to be followed religiously.

Jack Dueck, EAAHAC

Available for Members & non-members at www.**eaa**.org/desktop_**wallpaper**.html or Search **EAA** Wallpaper at www.google.com