September - October 2006

RECREATIONAL FLYER

Recreational Aircraft Association Canada www.raa.ca
The Voice of Canadian Amateur Aircraft Builders $6.95

Beat Meyer's Seafire

RAA
RECREATIONAL AIRCRAFT ASSOCIATION
RÉSEAU AÉRONEFS AMATEUR CANADA

from the president's desk

Gary Wolf

Transport and Industry Meetings - Progress Report

June saw the last of the monthly Transport Working Group meetings that began early this year. The purpose of the June meeting was to produce the final report that would be sent to the Technical Committee for critique at its January meeting. The Amateur-Built category emerged unscathed except for one small side deal. Transport had already decided to allow one manufacturer an exemption to produce "amateur-built" aircraft that gross at some 7000 pounds and have seven or eight seats. Our current limit is four seats and 5000 pounds. Further, their original intent was to require that the manufacturer build the planes in their entirety. RAA objected strenuously to this exemption because these aircraft certainly did not meet the 51% requirement, nor did they meet the intent of the category, namely recreation and education. Subsequently Transport amended their recommendation to require that the aircraft be built at the factory under a builder assist program. The FAA was represented at many of the meetings, and they will shortly be having their own discussions on the 51% rule. Many companies in the US appear to be ignoring that requirement, and the FAA would like to tighten up their regs.

Transport Canada will have a representative at the FAA meetings, and the rep has asked me if Canadians would accept a "Repairman's Certificate" as the price for Canadian amateur-built aircraft to continue to be able to fly into US airspace. In the American system, only the builder of an amateur-built may sign off its maintenance. Subsequent owners must go to an A&P (similar to our AME) for maintenance signoff. In the Canadian system, the owner of an amateur-built has the privilege of performing the maintenance and signing it off. The Canadian system has worked well for some fifty years, but we are now being asked to give up this privilege.

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What is your response to this request? Please email your opinions to garywolf@rogers.com, and the Board will use your responses as the basis of our reply to Transport.

Zenith 601 Wing Kit

In the July/August issue there was a notice to say that a member had donated a complete Zenith 601 HD wing kit, and that we would be selling it to the highest bidder. The wing and associated parts have now been sold to a member from Montreal, and the $3150 sale price will be used for upgrades and repairs to the office computers. If there is enough left, we are considering purchasing another set of weight and balance scales.

Materials Concerns

Carbon Fibre appears to be in short supply these days. If you are considering putting a deposit on a plane that uses much of this material, perhaps you should confirm that the company has enough inventory to supply your parts.

6061T6 aluminum bears some looking into, if it has been manufactured in one of the emerging Asian countries. Although standards are supposed to be uniform, I have personally run into some questionable material from China. For many years I have been die-forming a particular aluminum part and have used materials from many North American and European mills, without any problem. This batch of material from China spalled severely on the outside of the bend and then cracked. All of the correct information is roll-printed on the material but it certainly will not take much deformation without failing. Now imagine if the wing spar of your aircraft were made from this batch. How do you protect yourself from a situation like this? One way is to ask your kit manufacturer if he has done any actual testing of each incoming batch of materials. If he says that he relies on the manufacturer's certification sheet, you could be in the same situation as I was.

An email with photos was sent to the manufacturer's North American representative for comment, but at this

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features

George Gregory

Beat Meyer's
Seafire
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On the Cover: *Beat Meyer's exquisite (and rare) Seafire, one of 3 in the west and the only Canadian example. Washington State's majestic Mt. Baker in the background. Mark Munzel photo*

George Gregory

The Vampire BITES

ISN'T IT STRANGE how fate sometimes brings us something most unexpected? During my visit to England for my annual visit to take in the PFA annual rally at Kemble airport (another story) in the magnificent Cotswolds district west of London I did extensive travelling.

By Bill Tee

Three days before returning home and only five days after flying a DH82A Tiger Moth with instructor Andy Stibbs at Barton Manchester airfield I headed south from Lincolnshire to be near our departure point of Gatwick Airport. An overnight stay with friends in Harlow was pre planned. Our arrival in the area was somewhat early and we had time to put in before knocking on their door.

What to do? Since I am an aviator of sorts and an aviation enthusiast the natural thing for me to do was to visit the local airfield, North Weald, to see what was going on and grab a bite to eat at 'the Squadron', a quaint facility on the field that I have visited many times before.

While driving across the ramp to the parking area [standard practice] I spied the most magnificent Mk 9 Spitfire, one of three Spits [that I know of] based there. One keeps company in a hangar [locked] with a P51 and a P40. Forgetting about food at a time like this I parked the car and returned for a very close look at this great bird, no barriers or anything to keep me at a distance.

While I was busy admiring this dream machine the sound of an arriving jet plane caught my attention. It soon got closer and louder, much louder until I was only about 6 feet from where it parked. The whine declined as the fuel was shut off, I uncovered my ears, and two folks eventually exited from the cockpit of a 1952 deHavilland DH100 Vampire T11 trainer registered G-YTII.

Soon a person standing near me mentioned that rides could be had on this rare bird for fuel cost only. I was also informed that it burned 1000 litres per hour of jet A1! I raised my eye brows and expressed a slight interest in a flight in this craft. Soon one of the owners, Boeing 757 / 767 captain Matt Hampton, was at my side saying that a little birdie told him that I might be interested in a ride. I said that my arm could be very easily twisted and a price was settled on. The price? If you have to ask you can't... not really. The cost approximates 15 hours in the back of an Airbus 310 two ways across the Atlantic Ocean but is more than 30 times more fun.

After a quick mental auditing of my aviation bank account back home I said 'yes'. When would I ever get another chance like this?

Soon the fuel was paid for by my long suffering VISA card and I was ascending the entry ladder and lowering myself into the cockpit. Then the procedure starts. First was a briefing on the operation of the ejection seat, a similar model that I used to deal with long ago when involved

Soon a person standing near me mentioned that rides could be had on this rare bird for fuel cost only. I was also informed that it burned 1000 litres per hour of jet A1

with the design of the CF100 during my AVRO Canada days. Except this one was not fully automatic.

First lanyards were attached to the straps already wrapped around my legs just below the knees. These lanyards were to pull my legs back to the seat from under the instrument panel in order that they do not get knocked off during my being rocketed out during a necessary ejection. I was happy to know that in the case of an emergency exit from the aircraft I would not suddenly become some two and a half or three feet shorter.

Next was the doing up of the 5 point harness that attached me to the seat which also contained the parachute. Parachute straps were then added along with instructions for emergency action if required.

Those instructions brought my attention to the big D ring over the left side of my chest that when pulled after ejection has taken place releases the seat stabilizing parachute. Subsequently the release of the centre harness buckle would disconnect me from the seat and set me free to plunge earthward at some 100 miles per hour or so. The second D ring, located initially under the larger one is then pulled which releases the main parachute and settles you gently to earth, or so they say. I was warned that this second very important D ring, when needed, could be floating anywhere and would in all probability have to be looked for and located before pulling. Got all that? It would be a great challenge in a moment of panic! All this is predicated on having sufficient altitude to perform these activities. Without altitude there is no need to bother. Zero zero ejection? Forget it! It is truly wonderful that all this new found knowledge did not have to be put to use! After all, it is a very rare aeroplane!

Finally came the typical jet helmet with oxygen mask and ear phones.. The only reason for the mask was for the microphone. We did not fly high enough to warrant oxygen. Eventually I got it adjusted so that it did not hurt my face. Must have been a small face that preceded me. All the com plugs were also now in place.

Soon I was going through engine start procedures with my instructor Mark Hooton, a 757 pilot in real life, who also pointed out the canopy

Oh the glamour of it all! Spitfires, a Vampire and even a beautiful Fiat G46 done up in Italian camouflage. What a place to be!

release handle, just in case. He stated that being ejected from the aircraft without first releasing the canopy could very definitely compromise your chances of survival.

Before long we were at the end of the runway and mark did the take-off. We lifted off sooner that I expected at just over 120 but then Mark held it down to build up speed for the typical jet zoom climb and 180 degree turn by the edge of the airfield. Fantastic!

Quickly I had the stick and power lever in my hands with Mark's instructions to try a roll. However I chose to get a little more familiar with the aircraft handling before embarking on such antics. I tried some turns to right and left with increasing steepness and found that no matter how quickly I rolled into a turn or how steep the turn the slip ball stayed glued to the centre of its little tube. This is a feet on the floor aeroplane except for take off and landing. I felt at home with the aircraft immediately and at no time did it feel ahead of me like my brief time at the controls of a Dash 8. It is a bird such that you really feel a part of it.

Two rolls were done with no rudder input at all. Mark said just move the stick sideways and it rolls straight ahead. It did.

Next came a loop. Mark said "increase speed to 300 [from 280] and set the G meter needle on the four G mark and keep it there until you return to level flight again". It started out OK but my unfamiliarity with g's of this nature soon had me disoriented and I asked Mark to take over and he completed the maneuver. My empty stomach [food was forgotten, remember] was not too happy at these strange G forces. However with the controls back in my hands I soon felt better and I flew the jet back to North Weald airport where Mark did the landing. The roll-out was extremely long and I think Mark was trying to save the brakes for which I do not blame him one little bit. Our landing was slightly delayed by a Spitfire [not the one I was looking at earlier] that just landed and suffered a flat tyre [English you know]. It was soon cleared off the runway with no further damage and down we went in a right hand curving approach to a beautiful touchdown. Oh the glamour of it all! Spitfires, a Vampire and even a beautiful Fiat G46 done up in Italian camouflage. What a place to be!

What a great experience! The control of the aircraft was easier than many much lighter and smaller aircraft that I have flown. Stability was great and control balance was ideal with elevators being quite firm and ailerons being not quite so firm but with lots of feel. I did not use the rudder so I cannot comment on that. I can see that when airmen were transitioning from the big prop fighters that they would have found jets a piece of cake, as long as they realized that they no longer have instant power when opening the throttle [oops, power lever]. I found it interesting that the RPM gauge read in actual RPM and not the % reading that present day turbines have. Like me, this is a true antique.

For anyone wanting more information on this enterprise just punch into your computer "WZ507", the aircraft ident, and all the information will be at your hands. You too can fly a Vampire if you wish. To you military guys, ex and others, it's old hat but to a yokel like me -- pure excitement!

The Vampire bit me but only my bank account bled!

Sixty Evo Hours

I have just passed the sixty flight hour mark with my new aircraft and it has met all of my expectations. This plane is a F1 Rocket with the addition of the EVO tapered wing. It is the first EVO wing to fly in Canada and the third in the world. There are currently six flying at this time.

by Tom Martin

My background is agriculture and I am currently farming a 450 acre cash crop farm in southern Ontario. This leaves my winters open and in December of 1993 I started a RV4 project. It's first flight was in May of 1995 and I flew all over the place with that delightful aircraft. After a year, the building itch settled in, and there were a few things that I felt the RV4 needed. More cabin room, more passenger and baggage capability, and of course more power. This was the time when the RV8 was introduced, but there were none yet flying. My friend Gord Baxter pushed me to build a Harmon Rocket. I had never heard of this California based plane but after reading a couple of articles it certainly seemed to satisfy all of the things that I found lacking in my RV4. There were 11 Harmon Rockets flying at that time and no RV8s. I took a chance and went with the Rocket and started building late in '96. It first flew in the spring of 1998. My Rocket was the first one that I had actually seen. There were no websites or email lists and it was a bit of a challenge to build but that just added to the fun. I won a workmanship award at AirVenture 99 with that aircraft. I flew it for a year and the building itch struck again and I started another Harmon. It's first flight was in 2001, and two months later I was building again; this time two F1 Rockets. One for myself and I was assisting another builder with his F1 at the same time. After that I assisted another F1 builder finish his plane. It flew in the spring of 2005. With six planes under my belt I was looking for something a little different.

The F1 is marketed by Team Rocket, Taylor Texas. While it looks very similar to a Harmon Rocket all of the parts are completely different with the whole aircraft being engineered for the increased speeds and loads. There are numerous parts that have been strengthened in different areas of the aircraft. With few exceptions the plane is only offered as a quick build. Two years ago

Another benefit is that with the tapered wing it is no longer called, by default, an RV something. Although I have nothing but good things to say about the RV product line it is nice to not be just another one of 5000 flying aircraft.

another wing was offered for sale. This is the EVO wing, with a name that reflects the evolution of the aircraft type. The wing is tapered in both directions and has a wing span, depending on tips, of 26 feet vs. the 22 feet for the standard wing. The wing area has remained the same but the wing loading is higher as the new wing is about 65lbs heavier. It is designed for much higher speeds and as such heavier skins and internal parts were used. The wing, as supplied, comes closed, top and bottom, with the control surfaces ready to mount. The leading edge needs to be installed as well as bell cranks, flap bay ribs and inspection covers. The 26 gallon per side fuel tanks are sealed and installed. This wing has a very commercial/military look to it and is much stronger than anything else I have worked on to date. The Vne has been increased from 235 knots for the standard wing, to 250 knots for the EVO tapered wing.

One of the really nice things about the new computer cut parts is that the main spars stubs of both the standard wing and the new tapered wing are exactly the same. This means that not only can a standard wing aircraft be retrofitted but that damaged wings may be replaced with new factory parts. This was not possible with the old RV type spars used in the Harmon Rockets. The new wing has a repositioned rear spar which is forward of the old location. It is possible with the addition of some interior parts to retrofit a standard wing fuselage. My plane was originally a standard wing model so I had to make this modification. It was not that difficult to do and the supplied parts riveted right in place. There are new wing to fuselage intersection farings that are supplied and in general I found that the fibreglass parts are getting better and better.

One of the reasons I chose this wing was the challenge of doing something different. I have made numerous changes to this aircraft to reflect what I have learned from previous projects and also to make it a bit more personal. Starting with the wings I have replaced the supplied flat wing tips with a more rounded tip that, in my opinion, add to the pleasing lines of the tapered wing. The under wing intersection farings have been changed to smooth the transition from the wing to the fuselage. On the interior I have increased the size of the passenger foot wells, added an upper rear baggage compartment, totally reworked the pilot seat, added forward storage lockers, fabricated a custom engine control quadrant and installed a two axis auto pilot. I also used a unique single canopy track and although it works ok it needs a bit of refining before I would recommend this modification to other builders.

On the engine side of the firewall I modified the I0-540 Lycoming engine with 10 to 1 pistons and replaced one magneto with an electronic Lightspeed Engineering ignition. In testing on previous aircraft I found that speed and cooling gains could be enhanced with work around the cowling inlets and I totally reworked this area, which has resulted in very cool engine temperatures. The engine was rebuilt by ATC in Orillia, Ont., with the addition of many new parts including brand new ECI cylinders. One of the really nice features of these cylinders is a five year guarantee against corrosion. This is very welcome new technology for me as my airplane can sit idle for a few months in the winter.

The lower landing gear stubs were changed to end up with a zero camber and zero toe in when the aircraft is in the three point attitude. This has resulted in very little tire wear and nice ground handling. The tail weights are a bit heavier with this wing, at about 65 lbs., and I can feel this extra weight in the rudder pedals. One of my American friends has come up with a redesigned tail fork and I am going to install and test this product.

From the cockpit seat, the first thing you notice is the extra wing length. The tapered look is quite evident and the lines are well proportioned with the fuselage. Although the main spar is in the same location the average chord of the wing has moved forward. This

wing is an almost laminar flow wing, and the center of lift of the wing is further aft. The forward move of the wing almost balances the aft move of the centre of lift to the point that the wing is very close to the standard wing in regards to passenger and baggage loads.

On take off the wing will provide more lift earlier than a standard wing and breaks the ground earlier. The climb to altitude will be similar to a standard wing. Speeds at lower altitudes are the equal to the standard wing but it is faster at higher altitudes. I do not yet have all of the flap hinge fairing installed , but I do believe the plane will be at least five knots faster at high altitude cruise speeds. The stall speed is where this wing really shines, in that it is between five and ten knots lower than with the standard wing. Not only that, but the wing has noticeable ground effect after the flare and this allows more consistent landings and much shorter landing rolls. On my grass strip this is a most welcome improvement.

The roll feel is a bit heavier and the rate of roll is also reduced due to the increased wing span. The wing has neutral stability in the roll axis and the plane will stay in the roll attitude that it is left at. The wing is much more stable in roll than is the standard wing, so much so that my wife is enjoying the ride. She suffers from nausea and with this airplane I find her looking for places that we can go together. This greatly increases the value of the aircraft from our family's perspective! Aileron trim is not required with this wing and a curious feature is that you do not notice fuel imbalances in the wings the same as you do with the standard wing. This is apparently due to the increased stability of tapered wings in general. Pitch forces are perfect for the aircraft and tend to lighten up considerably with aft loading. From a pilots perspective the flight "feel" is not better or worse than the standard wing, just different.

To date I have been all over southern Ontario, the Geneseo Airshow, AirVenture and a trip to Chesapeake Bay in Maryland and I can say that this wing offers a definite advantage for cross country flying. The increase in roll stability, even in rough air, greatly reduces the fatigue of longer flights.

I have enjoyed the building process with this new wing and the flight characteristics have made it a good choice for this fuselage. Another benefit is that with the tapered wing it is no longer called, by default, an RV something. Although I have nothing but good things to say about the RV product line it is nice to not be just another one of 5000 flying aircraft. RAA

Pilot: "... request heading to avoid."
Controller: "To avoid what?"
Pilot: "To avoid further delay."

RIDING A Cyclone

"Cyclone 180, you have traffic at 12 o'clock, three quarters of a mile and closing. It will be turning final for Duluth International. Do you have the traffic?" asked the terminal controller. Sure enough, out of the mist appeared our traffic turning in front of us onto final for the runway. "Duluth Arrival, we have the traffic in sight," I replied while changing our course sufficiently to avoid a near incident.

by August Lehmann

WE WERE ONLY 1 MILE to the north of Duluth International and about 650 feet above ground in near minimal VFR. We were transiting through the area on our way east around the south of Lake Superior, trying to catch up with the CAVOK weather up ahead. Having missed this year's Oshkosh, Bonnie and I decided to fly our recently completed Cyclone 180 from Dawson Creek to her family roots in the Ottawa River valley.

We left Dawson Creek (Flying L Ranch), identifier CDC3 in the VFR Supplement, on Tuesday, Aug. 8, late afternoon under the leading edge of an advancing low pressure system. We caught up with the good weather before we were halfway across Alberta on our way to our friend Herb Spicer's airstrip at Dewberry, near Lloydminster, AB, where we stayed overnight.

Wednesday, Aug. 9, we departed Lloydminster area to reach Yorkton, Saskatchewan, riding our Cyclone at 5500 feet in smooth air and 24 degrees Celsius. The $1.55 a liter for 100LL at Yorkton was offset by the courtesy vehicle which we used to ride into town for a quick lunch at Tim Horton's.

The afternoon flight saw us arrive at Morden, Manitoba. The friendly people at Morden airport were very helpful with fuel and border crossing information recommending we use Piney Pine Creek, just an hour's flight to the south east from Morden. Piney Pine Creek has a paved north-south runway across the 49th parallel, with both Canadian and US customs available. We also discovered a self-serve credit card 100LL fuel system there, at only US$4.28 per US gallon, with full flight planning access. In a very friendly and professional manner, we cleared US Customs and shortly were on our way to Grand Rapids, Minnesota.

Our arrival at Grand Rapids marked the end of our first full day of riding the Cyclone, from northeastern part of Alberta, across Saskatchewan, Manitoba, and halfway across Minnesota. We felt still fresh and no "piston fatigue" at all, which we credit to the articulating front seats in our Cyclone.

Thursday morning we woke up to find ourselves in minimum VFR weather, but the flight planning specialist informed us we could catch up with the good weather as we were eastbound. The Duluth Approach Control were kind enough to vector us through their arriving, departing and transiting traffic. One hour after getting through the Duluth traffic we caught up with the warm and clear weather again and later in the day cleared Canadian Cus-

Top down:
The Cyclone at Herb Spicer' s airstrip at Dewberry, Alberta;
Piney Creek Airport straddles the 49th parallel and boasts both Canadian and American customs;
In the circuit at Grand Rapids, Minnesota.
Opposite: the author and company at Cobden.

toms at Sault Ste. Marie.

Our friends Pentti and Penny Palonen on Manitoulin Island were only one hour of flight time away from the 'Sault', where we ended our first full day of flying at the Gore Bay airport.

Friday morning we were grounded 'til noon by the weather system that had chased us the previous two days. By 13:00h our flight path to the Ottawa River valley had cleared and two hours later we landed at Bruce McPhail Memorial airfield, near Cobden, Ontario.

During the voyage so far, the second most important item after watching for other aircraft were the engine's oil pressure and temperature. Even though the engine had nearly forty hours since its overhaul, the rings were still in need of seating properly. For that reason, we packed enough mineral oil for the engine to keep it topped up at every refueling stop. To our surprise, nearly all those places also were well stocked with Aeroshell Mineral oil, and our worry about not finding any enroute proved groundless.

What roomy comfort in the Cyclone compared to our previous 2 seater homebuilt aircraft. We affectionately had called it the "meat wagon" because of the number of successful hunting and fishing expeditions in northeastern BC. While it could carry a payload of over 700 lb., it was short of space and after 1.5h on the bench seat we were always looking in near desperation for a place to land in order to stretch our legs. Perhaps flying the meat wagon for nearly 15 years is what motivated me to look at building a more spacious and comfortable aircraft such as our Cyclone.

During our visit in the Ottawa Valley, we were fortunate enough to attend Carp's EAAC fly-in breakfast with our Cyclone. Also to make sure the return west would also be as uneventful maintenance wise, I decided to take the Cyclone for a thorough inspection under the engine cowling by the expert maintenance personnel of John Chapman Aircraft Service in Arnprior, ON. After changing the oil and filter, three pairs of eyes scrutinized the filter's paper, but none could spot anything metallic in it.

More than ten days or so later, we started carefully watching the weather systems around the Great Lakes in preparations for the journey home. A low pressure system had nestled itself over the Great Lakes region and appeared in no hurry to move out of the way. Being now retired and thus

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Les Faucheurs de Marguerites 2006

Sherbrooke, Qc

par/by Serge Ballard, membre # 5591

Le rendez-vous aérien annuel des Faucheurs de Marguerites qui s'est déroulé à Sherbrooke les 1 et 2 juillet derniers a une fois de plus été un grand succès. Le site a été installé par les bénévoles du CAES (Club d'Aéronefs Expérimentals de Sherbrooke) le vendredi en après-midi. Déjà en ce jour de congé de la Fête du Canada on pouvait croire au succès attendu alors que de nombreux pilotes installaient leur campement sous l'aile de leur avion.

Les festivités ont débuté le 30 juin au soir par une partie 'Bière et sandwich' pour tous les bénévoles présents. Nombreux sont les aviateurs qui sont venus nous visiter dès l'aube le samedi 1 juillet, sans doute avaient-ils entendu parler du déjeuner offert gratuitement aux pilotes arrivant par voie aérienne avant 10 :00 am. En tout près de 50 pilotes auront mérité ce privilège au cours du weekend. Le salon commercial faisait salle comble avec plus de 20 commerçants.

Au cours du week-end nous avons accueilli au-delà de 150 personnes venues en aéronef et près de 1 500 personnes venues par les voies terrestres. La soirée du samedi s'est soldée par le souper habituel. Environ 80 personnes y ont participé. Nous avions environ 10 campeurs installés sous l'aile de leur avion et près de trente visiteurs sur le terrain de camping.

Aucun accident ou incident. Que de sourires sur tous les visages et des yeux ébahis des jeunes enfants devant ces engins de rêve. Le bilan est donc encore une fois très positif.

Vers 13 :30 dimanche s'est tenue la très attendu remise des Marguerites aux gagnants du concours annuel de jugement de construction et de restauration d'aéronefs. Notre grand gagnant cette année est Fred Bruinsma pour son magnifique Cavalier C-FGOC. Les gagnants pour les diverses catégories sont identifiés dans le tableau. Les photos des gagnants sont identifiées par les lettres d'enregistrement des aéronefs.

Top: Neil Biledeau and his Pitts
Below: a beautiful Piel Diamant owned by J.C Meunier

Catégorie Category	Nom Owner's name	Provenance From	Marque- Modèle Make-Model	Enregistrement Registration
Trophée Lucien Beaulieu	Fred Bruinsma	Goderich, Ont	Cavalier	C-FGOC
Marguerite 1 Plan	Fred Bruinsma	Goderich, Ont	Cavalier	C-FGOC
Marguerite 2 Plan	Claude Elie	St-Basile le Grand, Qc	Mustang	C-FCKM
Marguerite 3 Plan	J.C. Meunier	St-Tite, Qc	Piel Diamant	C-GUMM
Marguerite 1 Kit	Pierre Huneault	Valleyfield, Qc	Glassair	C-FMTV
Marguerite 2 Kit	Gilles Trahan	Ste-Julie, Qc	RV-6	C-FTVO
Marguerite Contemporain	Neil Bilodeau	Chambly, Qc	Pitts Special	C-GNWF
Marguerite Classique	Michel Langlois	Boucherville, Qc	Piper Arrow	C-FKKB
Marguerite Ultra-Léger	Hervé Martin	Ste-Cécile de Milton, Qc	Rider MD-3	C-IFHK

Les Faucheurs de Marguerites du Québec annual Fly-In at the Sherbrooke airport was once again very successful. The weather was bad all week with the exception of Friday and Saturday so aircrafts from outside Québec could not make it.

More than 100 aircraft (150 people) came during the weekend. 50 pilots came in early for a free breakfast. More than 20 commercial kiosks and more than 15 people representing recreational aircraft clubs were well set in the hangar for approximately 60 people. 45 volunteers and approximately 1500 participants enjoyed the Fly-In. No incident and no accident. A very good Saturday night diner at the airport restaurant. A very very nice weekend with only smiling faces.

At this event we have seen all you would expect to see at a larger size Fly-In with the exception of WW airplanes and stunts. So we had planes of all kinds, commercial booths, a fly-market, conferences, plane judging, aviators and friendly chats and fun. Awards were given to the winners in the Amateur Built aircraft and Aircraft Restoration categories. This year Grand Champion is Fred Bruinsma for his magnificient plans built Cavalier C-FGOC. The table provides details on this year winners. Pictures of the winners are identified by the aircraft's registration letters. RAA

More pictures on page 14-15

Grand Champion Fred Bruinsma and his retractable Cavalier.

Les Faucheurs de Marguerites 2006

Flying the airplane is more important than radioing your plight to a person on the ground incapable of understanding it or doing anything about it.

Los Angeles Center reported receiving a request for clearance to FL 600 (60,000 ft). The incredulous controller, with some disdain in his voice, asked, "How do you plan to get up to 60,000 feet?
The pilot (obviously an SR-71 driver), responded, "We don't plan to go up to it, we plan to go down to it."
He was cleared.

The pilot was sitting in his seat and pulled out a .38 revolver. He placed it on top of the instrument panel, and then asked the navigator, "Do you know what I use this for?"
The navigator replied timidly, "No, what's it for?"
The pilot responded, "I use this on navigators who get me lost!"
The navigator proceeded to pull out a .45 and place it on his chart table.
The pilot asked, "What's that for?"
"To be honest sir," the navigator replied, "I'll know we're lost before you will."

Airspeed, altitude or brains. Two are always needed to successfully complete the flight.

More Les Fauchers:
Left, Claude Elle's exquisite Midget Mustang
Centre, Herve Martin's ultralight Rider MD-3;

Right, Gilles Trahan's RV-6.
Below, Pierre Huneault's Glasair RG.

Niels Koehncke

Canada Remembers

Canada Remembers Airshow 2006
Saskatoon International Airport CYXE
by Marc DeGirolamo

This year marked the 11th year of the Canada Remembers Airshow and the 10th year that RAA Saskatoon has participated in the Airshow. The club started out in the first few years by working 'Static Line Security'. The organizers of the airshow felt that it was better to have people that were familiar with aircraft when time came to move them in and out of the static area. We then started to display our own aircraft in the static display area and it has evolved into a display of many club members aircraft along with certified aircraft and some which are still in the project building stages.

This year we featured amateur built aircraft such as Norbert Glatts' "Homade 183" on amphib floats, not something you see at many airshows, Marc DeGirolamo and Lowell Johnsons' RV-4, Ron Peters Zenair 601, Dwight Youngs' Baby Ace, Ed Zelko and Jack Easts' Fly Baby, Norm Sparrow and Ron Barcys' Murphy Rebel and Dave Gillespies' Christian Eagle. Certified aircraft also were shown, Ken Mossings' Mooney, Murray McArthurs' Champ, Len and Larry Neufelds' Citabria, Dr. Frank Scotts' Super Cub, Don Nafes' Luscombe, Sylvia Stebanuks' Warrior, Luc Provenchers' 172 and Ken Gulikers Piper Charger 235. Builder Brad Hewlett dragged his Rebel fuselage out of the garage and parked it next to Norm Sparrows completed Rebel to give onlookers a unique look at a 'before and after' display.

The Canada Remembers Airshow commemorates our veterans who fought in past conflicts, many of which who paid the ultimate sacrifice. Each day's events begin with opening ceremonies and a parade of veterans led by a

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Marc DeGirolamo

Marc DeGirolamo

Marc DeGirolamo

Niels Koehncke

Marc DeGirolamo

Top down: Marc DeGirolamo and Lowell Johnsons' RV-4 parked beside the Snowbirds after a 6:30 am flight; Saskatoon International, location of the Canada Remembers event; Dave Gillespie(L) and Bruce Peters stand beside Dave's Christian Eagle; A wonderfully restored B-25 was on display and participated in the flying activities. Opposite left: Ron Peters beaufiful Subaru powered 601. Opposite, right: Chapter members pose before the show gets underway in from of Norbert Glatts' "Homade 183".

Niels Koehncke

Canada Remembers

Continued from page 16

pipes and drums band. An announcer pays tribute to Canada's veterans and the need to remember those who paid the ultimate sacrifice. A military padre delivers a prayer of remembrance, followed by a two-minute silence, a 21-gun salute and a ceremonial flypast of WW II-era aircraft, this year a B25 Mitchell and a P-51 Mustang.

These fellas fought so that we could have a country, free of tyranny. Because of them, we get the opportunity to be able to build and fly our own airplanes, something which many countries today are not able to do. Our display shows the community that there is another side to aviation - other than the 737's and F-18's - one that many are not aware even exists, that of the Amateur Built and Ultralight Recreational Aircraft.

Marc DeGirolamo


Marc DeGirolamo

Marc DeGirolamo

For the tenth year in a row, RAA members participated in the event. Top down: Len Neufeld puts some finishing touches on his Citabria; Norm Sparrows' Murphy Rebel and to the left Brad Hewletts' Rebel fuselage show a "before and after"; Norbert Glatts' Cessna 183 on amphib floats. Norm's excellent airplane was the subject of an article a few issues back.

Across Canada

RAA Chapters in Action

RAA Toronto Region Hosts 6th Annual Sonex Builder's BBQ

The 6th annual Ontario Region Sonex BBQ was hosted by RAA Toronto Region on Saturday August 19th in the RAA hangar at the Brampton, ON (CNC3) hangar. Attending were 10 Sonex builders, a few spouses and friends, and 15 or 20 RAA members. The lunch-time BBQ left no one hungry and the cash in the donations cup and left-over non-perishables will be given to the Toronto chapter. Attached is group pic of the Sonex clan, left to right, Dick Fisher (all the way from Franklin, PA), J. Davis (and Jaye), Graham Luckhurst, Terry Holek (and Dianne), James Neeley, Colin Bird, Mike Green, Lach MacLean, Fritz Deininger, Brian Heinmiller (and Nancy). Colin and Fritz brought some of their parts and assemblies to show and tell and the work-

Left: lining up for chow at Toronto's Sonex BBQ. Below, left, Ed Johancsik's Tailwind gets the once-over at the Wiarton Fly-In.
Below, right, a Mustang II. an excellent example of a truly crafted flying machine.
Opposite page: a few of the airplanes at Chapter 85's BBQ shindig

manship here is just superb. There are a couple of award winners being built here for sure. Graham described his arbor-press spar-riveting technique that was the subject of a recent Recreational Flyer article. Everybody brought their pictures and and there was a lot of idea sharing and builder encouragement going on.

Weather was marginal so there were no fly-ins and light rain in the afternoon put an end to Brian Heinmiller's plans to fly a few demo rides in his Sonex. That will happen on an individual basis later.

This was RAA at its best - providing the forum, facilities, publicity and support for an event that furthers the educational, safety and social objectives that benefit our members.

Brian Heinmiller
Sonex 0134 C-GSBH

Chris Gardiner

RAA Chapter 51 (Wiarton) Annual Fly in

Nothing beats those cool summer mornings for a great smooth flight and what better destination than Wiarton's Annual Festival of Flight gathering on August 12 at Wiarton, Ontario.

Chris Gardiner

Departing Oshawa CYOO in the KR2S along with RAA member Wayne McCarron, we headed northwest into the morning sunshine and climbed to 4500 feet where we could see Collingwood shortly after takeoff. The day was just starting but it promised to be glorious weather for our 1:10 minute flight to Wiarton. The old VW 2180 was humming right along as we trued out to 120 mph with a slight headwind. And surprisingly, there was little traffic along the way which made me wonder why more pilots don't get up early and enjoy the majesty of flight in smooth morning air.

The 4th Annual Bruce Peninsula Festival of Flight, sponsored by RAA Chapter 51 , hosted by Brian Reis at Wiarton-Keppel Airport was the place to be on this CAVU day as aviators and antique motorcycle enthusiasts rallied at The Roof Top Cafe for breakfast. The local café served Canadian back bacon, scrambled eggs, toast to a crowd of approximately 50 visitors. Lunch was also provided later that day for the visitors and their guests.

Among the aircraft on display was an immaculate Mustang II , Murphy Rebel, Wittman Tailwind, Van's RV4, Van's RV7 , Tiger Moth and a classic Emeraude to name but a few. All were fine examples of the homebuilder's craft and garnered a lot of attention by the attendees of the fun rally.

"Hi Brian:

As you know, I have been attempting to complete 1000 hours in my Champ .....preferably on skis so have delivered a lot of pizzas this winter....in fact as of Sunday afternoon I have 59.6 hours this winter on skis and more landings than I can count! It was a bit turbulent Sunday so I stayed over the lake to put in the last 3.8 hours that I needed for the 1000 hours. As I was doing my downwind for 17 my tac read 999.9 and when I stopped at the club house it read 1000! Needless to say, the " hot stove league" had to come out to verify my reading! Enclosed are several photos taken of a very proud youngster with his 1000-hour sign which was taken last sunday after landing!!!!

Guess what? After I get the bi-wing back to Lyncrest I start all over....WOW!

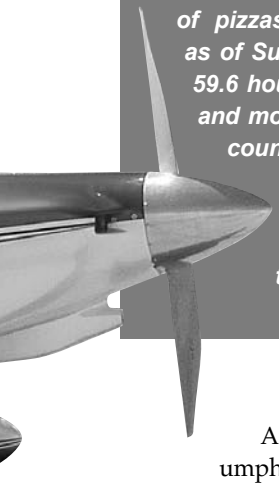
Take care Cheers Cam"

ON HIS 40TH BIRTHDAY Cam's wife Doreen bought him a box full of aircraft parts, from which, he resurrected the little Aeronca Champion Aircraft CF-KBQ that he wears like a favourite old sweater. Now, with close to 40 years of flying and exactly 1000 hours in the cockpit of this little plane, Cam has reached his goal. But it won't be his last, for he's bringing another bi-plane into his hanger in May with his sights set on his next 1000 hours of flight.

Cam Jay, a retired U of M Entomology Prof, who at close to 78 has the energy and enthusiasm of many half his age. Truly an inspiration, Cam keeps all in fine humour with his anecdotes, flying pizza delivery and truly amazing accomplishments.

Congratulations Cam, you are a true inspiration.

-Brian Koldyk



Antique motorcycles in attendance were Triumphs, BMW, Honda, and Ducati's and many more, all polished to perfection and restored to their original splendour.

Departing Wiarton in the afternoon sun, we once again slowly climbed outbound to our cruise altitude to the southeast and begin to take a pounding from the convective thermal activity that had started around noon.

In spite of a bumpy ride home, it was truly a great event to attend and is on the calendar for next year.

If summer flyin's like this are of interest to you , don't miss the RAA Oshawa's Barnyard Flyin at Hawkefield , Orono Ontario on September 10,2006.

By Chris Gardiner, RAA National Executive

Chapter 85 Vancouver

Nothing can beat a day at the Airpark. Chapter 85's August monthly meeting was replaced with a Barbeque. Tenant of the Delta Heritage AirPark were also invited to join club members to drag, push, taxi or fly their airplane to the roundhouse for show and tell and share a burger/hotdog and stories. On display for all to see included a Navion (Ted McHenry), Aeronca Champ (Chris Cox), Emeraude (Colin Walker), Tiger Moth (Terry Elgood), & a RV-9A (Vern Little). Tie-down visitors from Switzerland Paul and Paula Abenteuer with their SeaRay and many stories of visiting the Canadian Rockies and Mary and Tony Swain (thecopaguy) were also on hand to enjoy the great munchies. Turn & Bank editor Joan Cox was parked by the grill flipping patties, thinking she has found her true calling. A Short Order Cook! Standing at 5'1" if the shoe fits, she'll wear it. It was a great way to spend an evening. The club has at least half a dozen members at various stages of building a Van's kit. Joining the RV band wagon are new members Judy & Jim Brenneman with their Quick-built RV-7, in model terms an ARF – almost ready to fly! They have lots of mentors as Rob Prior, Chris Cox, Mike Neff and José Lins are also building RV-7's though they all have standard kits. Mike Neff with the help of Chris Cox put the final panel on his wings, they are now ready for the spare (parts) bedroom (that what it's for, isn't it?). Chris Cox and wife Joan drove up to Kamloops recently to pick-up their new baby, a Bart

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Joan Cox

In the early 70's

the folks who made the Lake Buccaneer were looking for a new design. They turned to David Thurston, already the designer of a number of successful amphibians, and the TA-16 Seafire/Trojan was the result.

George Gregory

Rob Prior

Beat Meyer's Seafire

by George Gregory

Before the company could produce the new aircraft, however, times got hard, and a boardroom decision was made to instead upgrade the Buccaneer, which became the Lake Renegade. The Seafire was abandoned.

The plans were made available to homebuilders in the mid-70's; the homebuilt version was also called a Trojan. A number of projects were started; in Canada, two projects were begun - one in Kitimat, and the other in Vancouver. The latter is Beat Meyer's TA-16 Seafire.

Beat Meyer was born in Switzerland, and received mechanical and flight training while serving in the Swiss Air Force. He came to Canada in 1968, and eventually ended up working as a scientific technologist for the Physics and Astronomy department of the University of British Columbia. He is a longtime member of Vancouver's RAA Chapter 85, and has been an inspector with the MD-RA program since its inception - and before that as an AIR-ABA inspector, all under the auspices of the RAA.

The Seafire is not Beat's first aircraft: his first project was a Bakeng Duce, which is still flying in Moncton. He subsequently rebuilt a Champ, Musketeer and a SeaBee, which was his ride during the Seafire's 20 year gestation.

I had first noticed the design at the Arlington fly-in in Washington state a few years ago; a pair reside in the Northwest and were both present. One is was built and is owned by a Seattle dentist; the other, the V.P. of Boeing. Beat became friends with both during the construction of his ride.

I was impressed by the aircraft's good looks and obvious utility. As I was to find out later, its beauty is far more than skin deep. The Seafire improves on its ancestors in most respects - Its linage would include the various Lake aircraft - all designed by David Thurston.

Beat's Seafire is almost entirely scratch-built. He was able to find some preformed ribs from a fellow who owned a jig, and the inboard leading edge skins were rolled at McDonnell Douglas when they were in Long Beach, California. Other than that, the aircraft is virtually hand-made. Colin Walker, of prop-making renown (and fellow Chapter 85 member), helped with the canopy and fibreglass molds, and wife Marilyn was complicit in setting the aircraft's thousands of rivets; in fact, Marilyn has helped in all of Beat's aircraft projects, and she's not just a good riv-

George Gregory

Beat's front office is clean and functional. A special set of indicator lights (located just above the radio stack) helps the pilot keep track of what position he has the landing gear at for each particular landing - a consideration that might not occur to a landplane pilot. One wouldn't want to land on a lake with your wheels down...

eter - she also does upholstery and soldering of delicate wiring harnesses.

I asked Beat how he managed to raise a family while building such a complex aircraft: he laughed and pointed out that they rebuilt a couple other aircraft during the same period, did some flying, built and designed a house, while holding down a full time job. And raised a family.

The nosecone is constructed of Kevlar and provides a crush zone, further enhanced by the front wheel when it is retracted in its well. Separate compartments are accessible from outside the aircraft; on the starboard side there is a door for the anchor, and on the port side there are access panels for the hydraulics and instruments.

The blown canopy is divided in half and opens into two enormous gull-wing openings, providing easy access for all concerned. The cockpit is roomy, and visibility is remarkable as all four occupants sit forward of the leading edge. 4 point harnesses grace the structural seats. Beat's upholstery is tasteful and functional, and the dash features full gyro and a stack of late-model Narco radios. One interesting detail is his "manual hydraulic" flap system: the plans called for a manual Johnson-bar system, but Beat found to be too heavy for his liking. He devised a setup featuring a wobble pump mounted between the front seats; a selector on the console is mounted just in front of it. To actuate the flaps, 8 or 9 strokes of the pump are required, then you move the selector to the desired position. A row of LED lights on the centre console confirm degree of extension.

The gear is a electro-hydraulic affair with a nitrogen bottle for backup which is good for a number of cycles before it is depleted. The beefy undercarriage is stressed to accept skis, so they are more

George Gregory

Left: The water rudder retracts electrically into the bottom of the air rudder.
Left, bottom: the Seafire's trailing link nosewheel makes taxiing onto sandy or gravel beaches a snap.
Below: Custom-designed sponsons were developed by a Seattle racing-boat company and exhibit better hydrodynamic behavior than the ones specified in the plans.

rugged than otherwise, and all three wheels are trailing link suspension. This is significant: unlike the Buccaneer and Renegade, there is no tendency for the nosewheel to dig in when driving the aircraft up onto a sandy or gravel beach.

The aircraft is divided into three separate water-tight compartments to reduce the chances of the aircraft being swamped.

Just aft of the cockpit, a modified Lycoming 0-540 (290 hp at 2700 rpm) sits atop the pylon, and unlike its Lake ancestors, is installed prop forward, in a tractor position. Beat says this helps significantly in the handling department. A two-bladed Hartzell constant-speed propeller completes the assembly.

The wings are of the Hershey-bar variety, and Beat has installed vortex generators along the span. 90 US gallons of fuel (340 Litres) are carried in the inboard portions of the wings. They are attached with a set of bolts from a 747 engine pylon.

The sponsons as called for in the plans were similar to those found on the Lake aircraft, unattractive metal appendages that thrust downward like thick knives from the wings. Beat deemed them inadequate, and started shopping around for something better. The answer was found when he and two other Seafire builders, Bob Hammer and Dave Woodcock of Seattle approached a company there that specialized in racing boat design. The result was a pair of attractive, low-profile composite sponsons with markedly better hydrodynamic characteristics: there is no tendency for the float to pull the wing down should it become submerged during turns in the water.

The sturdy, rectangular elevator sits high, maybe 8 feet off the ground atop a swept vertical stabilizer. Beat designed a dual electric trim system similar to that found in Boeing's 767, and the air rudder has an electrically retractable water rudder that pops out of the bottom.

Flying Characteristics

We strapped in and were soon blasting down Boundary Bay's runway 12. Acceleration was solid and the noise level not bad at all with ordinary noise attenuating David

Clarks.

With the two of us and full fuel and an OAT of 18 degrees, we climbed at about 800 fpm, but due to the area's complex airspace, we limited our altitude to 1000 asl and headed south towards Point Roberts. I'm not rated for amphibious aircraft, and found it refreshing to gaze down on the water with rather less apprehension than I would if I was in my Cessna.

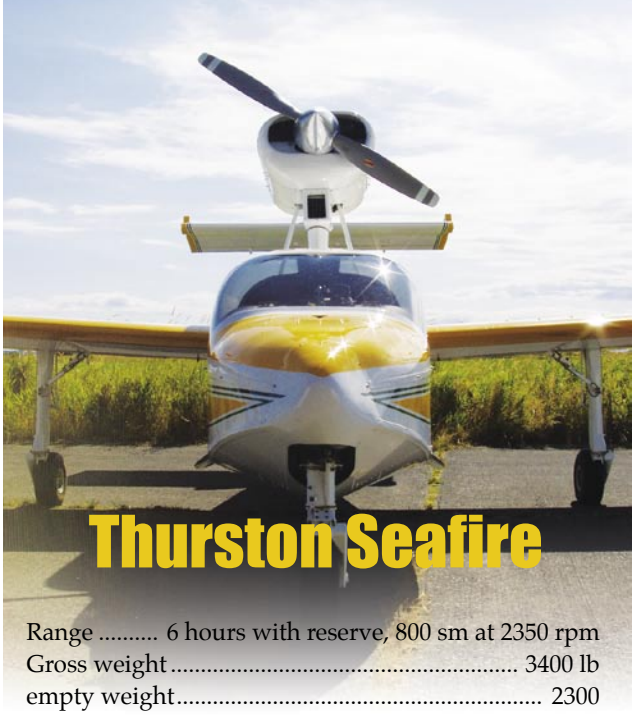
Beat relinquished the controls and I executed a few gentle turns back towards White Rock. For an aircraft this size, the controls are responsive and quite easy to handle; lighter and more precise than my 172. Not used to the view over the nose, I found I had to pay attention to the attitude of the aircraft - it was easy to gain or lose a few hundred feet, but after a few minutes I had it nailed.

Though not small for a homebuilt, the Seafire has a sporty, capable feel to it. It's not an RV or a Tailwind, but I found the controls pleasant and balanced. Beat says the handling is superior to the Lake in all respects. He demonstrated some power changes and although there is the inevitable negative pitch couple that occurs with all pylon mounted engines, no unusual amount of trim was required once an attitude was established. He pointed the trim tabs out to me after we landed - they were in a practically neutral position.

Beat typically cruises at 2350 rpm, getting a cruise of 120 knots indicated and a fuel burn of about 13 gph. This would give a bladder-busting range of 6 hours with reserve - about 800 miles.

Conclusion

The Seafire is not a simple aircraft, but for those who



Thurston Seafire

Range ..... 6 hours with reserve, 800 sm at 2350 rpm
Gross weight ..... 3400 lb
empty weight 2300
fuel ..... 340 litres (90 US Gal) - 170 per side
liftoff ..... 60-65 kts
Climb ..... 80 kts
Cruise 123 kts @2350 rpm and 23.5 Hg Manifold Press.
max flap extension 87
max gear extension 100
Fuel consumption ..... 50 litres/hr (13gph) @ 2350 rpm
Rate of Climb ..... 790 fpm at MTOW, standard day
Approach ..... 80 kt
Short final ..... 70 kt
touch down ..... 60-65 kt
Stall ..... 60 kts

For more information, Beat can be reached at: *seafire@telus.net*

Mark Munzel

Right: two doors forward of the cockpit open to reveal the hydraulics for the landing gear on the port side, and the storage for the sea-anchor on the starboard side.
Below: Beat and his masterpiece. An aircraft of this quality and complexity can be regarded as a life work.

are up to the task, it would seem an exceedingly rewarding project, if you can find a set of plans - and that's a big "if": plans are not being presently offered. However, there are more plans out there than completed aircraft. There are rumours of a Russian factory undertaking the construction of production aircraft in Moscow, at the Mir (yes, the space station people) factory. I googled the term, however, and found nothing. With so few around, there's no type club, but given the aircraft's heritage, I imagine there's a lot of common ground (water?) with Lake owners. If I were looking for plans, I'd look there first.

The Seafire is one of the most highly engineered homebuilts I've ever seen, and Beat's example is clean enough to eat off of. Especially in a country like Canada, I cannot envisage a more useful or attractive aircraft for those who want to see parts of the country not accessible by other means. Simply beautiful! RAA

Chapter News (continued from page 21)

Lalonde rebuilt Lycoming 0360 engine beautifully painted antique gold and black. They will be spending the winter wiring, having been told to have their airplane ready to fly to Oshkosk in 2008.

Kitchener/Waterloo

KW-RAA has been busy this summer with a June fly-in at the rural home of John and Linda Kunz. Forty members and guests attended and partook of the gourmet barbecue that featured chicken breasts and Oktoberfest sausages. In July we met at Pat and Mac McCulloch,s strip near Arthur for another barbecue. The weather was dodgy that day so the only pilots who made it in were Tom Manning in his Challenger, and Tom Mills and Paul Bevilacqua in Paul,s Zenith 701. In August Clare Snyder took a group of members for a midweek tour of the Diamond Katana factory in London. The members were very impressed by the factory - it was spotless, and despite that the planes are

composite, there was no smell of resin at all.

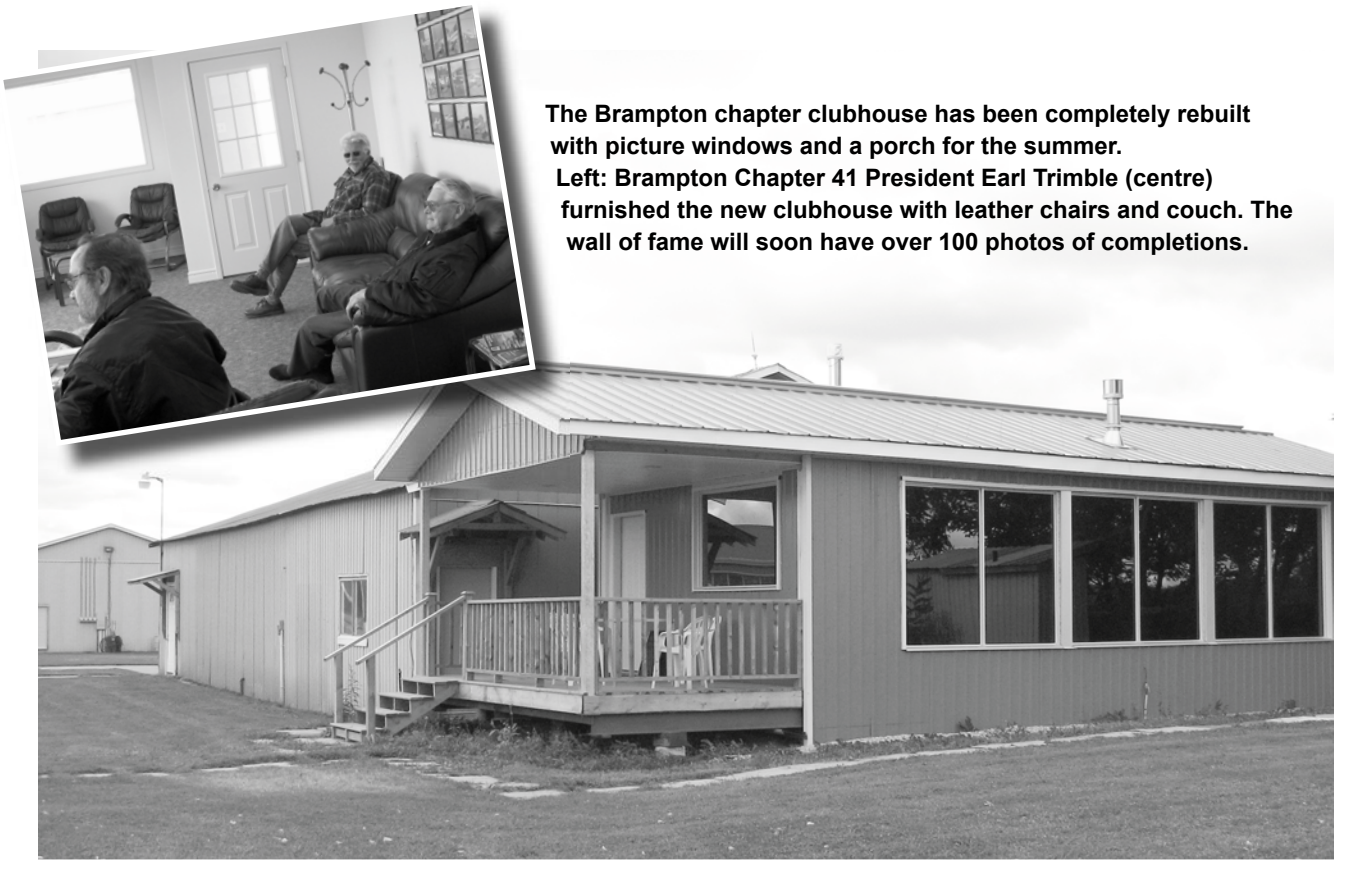
The September meeting marked the return to indoor events at the Cadet building at CYKF. Brian Kenney, Senior Advisor Fuels and Additives at Petro Canada addressed thirty RAA members and guests on the topic of ethanol in auto fuel. Brian has been flying his self-built Pietenpol for twenty years and explained why we should be concerned about the effects of ethanol on aircraft that are running auto fuel. The best bet for the future appears to be an aluminum tank with all aluminum fittings and tubes. Our October meeting will have Chris Heintz as the speaker. He will be returning to Europe at the end of October, so this could be one of the last opportunities to hear him speak. Chris will be discussing the Light Sport category from the point of view of a manufacturer.

Contributions to our Chapter Activities section are encouraged. Keep your fellow members updated on what is happening across Canada! Send your reports and newsletters to :

Recreational Aircraft Association

Brampton Airport, RR#1,
Caledon ON L7C 2B2
Telephone: 905-838-1357 Fax: 905-838-1359
Member's Toll Free line: 1-800-387-1028
email: raa@zing-net.ca

Opposite: Joan and Chris Cox display their new baby, a Lalonde-rebuilt Lyc 0-360; Chris and Mike Neff work on the bottom skins of Mike's RV-7. A number of RV's have been completed or are being built by Chapter 85 people.
Right: Brian Kenney addressed the KW-RAA chapter on the subject of ethanol in fuel
Below: Wayne Hadath and his son went to the Diamond tour in the Rocket. Everyone else went with Clare Snyder



The Brampton chapter clubhouse has been completely rebuilt with picture windows and a porch for the summer. Left: Brampton Chapter 41 President Earl Trimble (centre) furnished the new clubhouse with leather chairs and couch. The wall of fame will soon have over 100 photos of completions.

Cyclone *Continued from page 11*

no longer suffering from "get-home-itis", we relaxed and visited more of the wife's relatives and friends. Especially friends like fellow COPA member and pilot Tom Prince of Tom Prince Motors, who gave us the use of a courtesy vehicle from his car lot for most of our stay in Renfrew, Ontario.

Finally a day-long gap appeared to be in the making from Sault Ste. Marie to Duluth and beyond on the satellite weather network. All we needed now was for the ceilings and visibilities to improve in the Ottawa River valley, and we finally had liftoff on Monday, August 28 at 9:41 a.m. Fog stayed in the valley along the Ottawa River as far as Mattawa, while the land on either side was totally clear. We were now underway going home!

Refueling at Sault Ste. Marie gave us the chance to grab a snack in the cafeteria, call the American side for Customs, file a flight plan and acquire a discrete transponder code for crossing international borders. As by now we had an American Customs decal on the fuselage of our Cyclone, we spent less than 10 minutes on the ground before we were on our way to Grand Rapids, Minnesota, where we spent another pleasant overnight stay.

The next morning's weather briefing indicated a high pressure system across the prairies from eastern Alberta to the Lakehead. We flight planned for Canadian Customs clearing at Piney Pine Creek and then to Saskatoon, Saskatchewan. Later that morning we were almost over Yorkton when I noticed the oil pressure needle moving an eighth of an inch towards the low pressure direction. As we were by now over 2 hours in the air, we decided to make a precautionary landing at Yorkton to investigate what possibly caused the needle to move. Shortly after leaving 8500 ft we had the opportunity to see how the Cyclone would ride in mechanical turbulence and wind sheers as Yorkton was reporting surface winds at 29 gusting to 50 knots, at almost 90 degrees across the long runway. Fortunately, Yorkton still maintains a short gravel strip which had a lesser crosswind component and the landing was a greased on wheel landing. Taxiing in was more challenging and required full attention and care! Only after the a/c was pushed inside the large WW II hangar could one relax.

After a quick lunch at Tim Hortons, thanks due to the courtesy car by the local fuel agent, we called in for weather and flight planning. How quickly the weather can change! Now the briefer cautioned us against continuing the flight to Saskatoon due to a low level jet stream crossing Saskatchewan from south to north. He seemed particularly worried about the winds where we had just landed. We assured him that this Cyclone of ours had just proved itself very steady on either its legs on the ground or on its wings while in the air. Shortly thereafter we were into the sky climbing back to 8500 feet at 110 mph. Our GPS was indicating a ground speed of 159 mph.

Flying for most of our lives (since 1957) on the leeward side of the Canadian Rockies, we had experienced stronger winds than that, the greatest headwind at one night flight

Yorkton was reporting surface winds at 29 gusting to 50 knots, at almost 90 degrees across the long runway.

near the foothills was 68 mph, right on the nose. This time it was over flat Saskatchewan, during the day, and yahoo!... a partial tailwind from the eight o'clock position of our Cyclone in only light chop! It didn't take long for us to cover lots of ground and the blue skies soon started to look gray and the forward visibility began to acquire that milky look of haze or smoke. Our noses were the ones that soon confirmed we had met a thick broad band of BC forest fire smoke, blown all the way into the central part of Saskatchewan! At 8500 ft ASL, the forward visibility was still greater than a couple of miles. With no horizon as guide for the a/c's attitude, level flight was easily maintained by diligent use of the attitude indicator.

With the increased ground speed, we now decided we had more than ample fuel for an extension of our flight plan to Lloydminster. We therefore contacted Saskatoon arrival for radar following service through their terminal area, which they obligingly provided. We were aware that a frontal system was due to arrive from the northwest into the Lloydminster area by nightfall and with the smoky haze, daylight appeared to be fading earlier than expected. Our trusty old Garmin 295 came in handy to lead us to the grass strip of Herb Spicer's, a short distance to the northwest of Lloyd. There is a warm feeling one gets when spending time with friends like the Spicer's who also fly for fun.

The next day, as the expression goes, we were socked in. This gave us a chance to visit aviation enthusiasts of the local area, such as Charlie Seville and his son who build bush airplanes out of Tripacers. Charlie is famous for always being ready to help solve a fellow aviation enthusiast's problems, so I discussed the experience of the oil pressure indicator's

Top down:
August's grandniece tries out the controls;
On final to St. Paul
Left: The Cyclone is safely ensconced in a Yorkton hangar. Given the crosswind - 29 gusting to 50 - discretion dictated the use of a shorter gravel runway.

movement that had me puzzled. He provided me with insightful information that helped me understand much better the functioning of an oil pressure relief valve which determines what is shown on the guage.

Then that same day we were honored to meet another great aviation personality of the area, now retired Airbus captain, Sam Boothman. This year Sam had recently completed a long distance flight from his home to Ellesmere Island, the most northern part of North America, and return in a beautiful Cessna 180. Now he plans to fly later this fall all the way to the most southern tip of South America and back!

Visits like that make a socked in day fly, and the next morning we set out to ride our Cyclone home, where we arrived in time for lunch. Total flying time enroute as well as several flights within Ontario was just over 40 hours. The cost of fuel, oil, and other expenses, our Visa looked after. The experience of the twenty-some days riding our Cyclone - priceless!

Product Reviews

Menno Peters (l) and Don Vanraay (r) with one of their machines

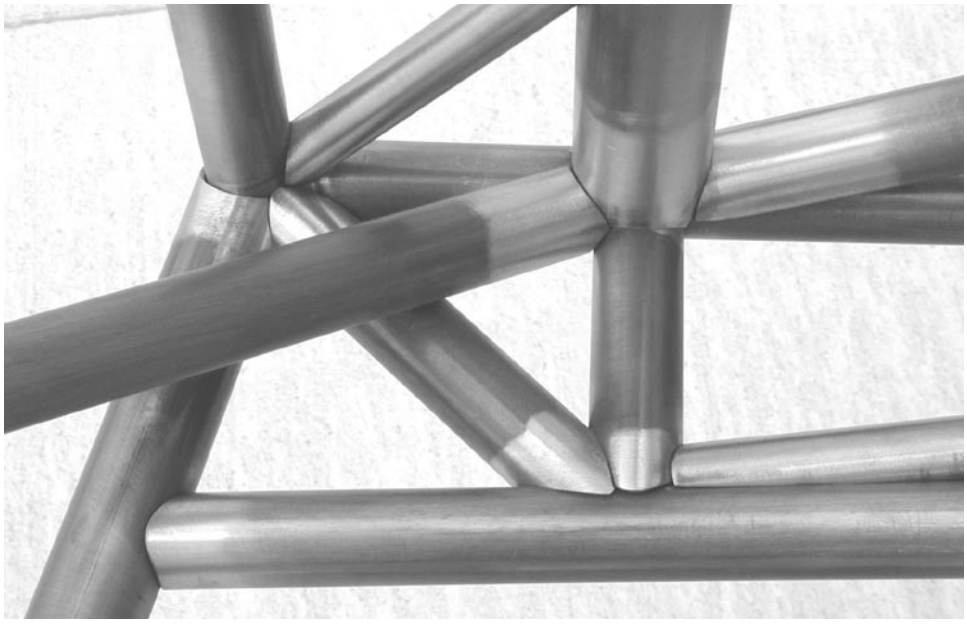
VR3 ENGINEERING PREFITTED FUSELAGE TUBING SETS

When Bill Weir told me that there is a new company in Stratford putting together packages of chrome moly tubing for homebuilders, I was only mildly interested. However when Don VanRaay of VR3 Engineering addressed the London chapter, it became apparent that this company has broken new ground and could revolutionize the fabrication of fuselages, motor mounts, and any industrial fabrications from tubing, whether round or square.

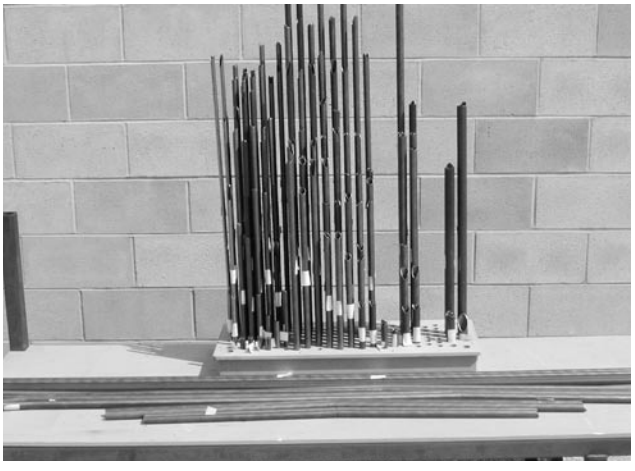
In the racing car industry there are already a number of companies selling machines that purport to profile the end of a tube so that it will make a reasonable saddle joint with another tube. Some of these machines use a holesaw for cutting; heavier duty machines use a milling cutter and have some sort of adjustable angle vise. Some have a punch and die set and nibble the end of a tube to make the fit. For light tubes my personal preference is a good pair of snips to rough the shape, and a bench grinder with a wheel dressed to the diameter of the tube to be fitted. All have their limitations, and all require a good bit of eyeballing to ensure that the angle of the joint and the clocking of the ends is correct. None of these methods provide a perfect fit and the result is usually some wasted tube and a lot of filler rod when welding. Loose gaps mean that a lot of hot metal has been poured in, so when the joint cools there will necessarily be warpage. Sometimes this can pull the fuselage out of shape, and the builder must "correct" with a dead blow hammer and a strong arm.

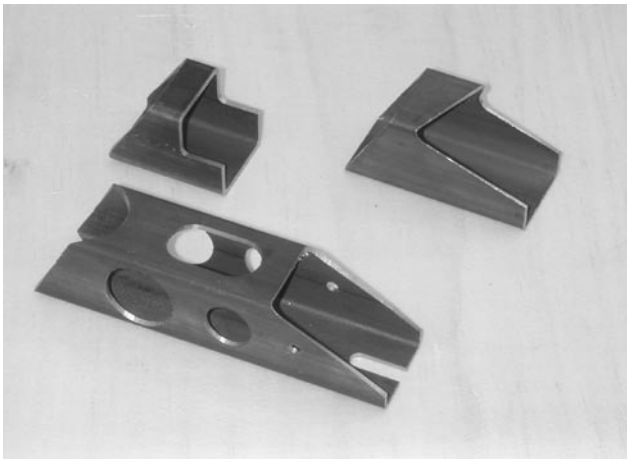
Enter VR3 Engineering. The genius of their product is the CNC machine that Don VanRaay P.Eng designed and built. Using this machine, all tubes are rotationally milled to a tolerance of .001" no matter how many tubes are fitted into a cluster. The gaps between tubes will never be more than .010", something impossible to achieve by traditional methods. Up to now 1/16" has been considered pretty good, and I have seen many homebuilt fuselages that obviously had gaps of 1/8" filled with welding rod. To achieve their close tolerance requires that VR3 first model the entire fuselage drawing in their CAD program, a task that can take as much as two weeks at the keyboard, depending on how well the designer has drawn his plans. Once the model is complete, the program calculates the end profiles and lengths for every tube of the fuselage. From here on it is the work of their in-house built special purpose CNC milling machine to cut and label each tube, ready for packaging and shipping.

There has to be a cost for all of this, but it is reasonable. The typical set of tubes for a fuselage is $34-3600 CDN including shipping. As soon as the builder receives his package he can lay it out and begin tack welding. Because of the accuracy of cuts, there is very little jigging required. Contrast this with the typical 2 place high wing fuselage that requires nearly $2000 worth of raw material. To this must be added the cost of packaging, brokerage, and ship-



Left: Complex clusters are no more difficult than a simple saddle joint. All joints are watertight. Below, left: A typical kit ready for packaging. Below, right: Imagine producing these parts with a drill press and saw. Then make the mirror images for the other side of the fuselage.





ping (most material comes from US warehouses). A prudent builder orders 20% extra material to allow for shipping damage and the learning curve that goes with tube fitting. All of the messy import work, and the cutting and grinding are eliminated when VR3 supplies the fuselage package. Most of the tubes can be shipped in mailing tubes, with the longerons going into 3" tubes 10 ft long.

American manufacturers have already recognized the savings that can be made by buying their tubes already profiled. Don VanRaay of VR3 says that he is supplying complete packages to Cub Crafters and the orders are very steady. Several other manufacturers have sent plans sets for quotation. Menno Peters of VR3 does the CAD work and he is regularly adding more fuselage packages to the list. Builders wishing a Cub type plane may order a set of tubes from VR3, and then get plans for the Barrows Bearhawk Patrol. VR3's current inventory of tube sets includes the One Design, Breezy, Barrows Bearhawk, Barrows Patrol, and Tailwind. Don and Menno will consider any aircraft for which there is enough market to justify the CAD work. Keep an eye on these fellows - they know airplanes and they make a good product. RAA

Gary Wolf

For more information:
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45 Dunlop Place
Stratford Ontario
N5A 2E9
ph 519-273-6660 , fax 519-271-6888
website: www.vr3.ca , email: info@vr3.ca

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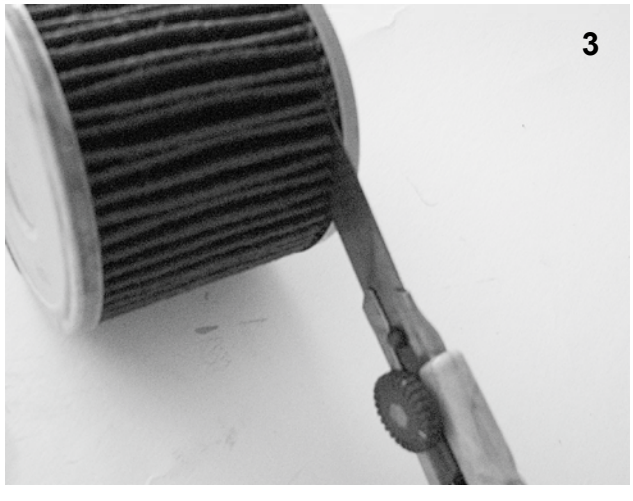
Oil Filter Cutters

Wayne Hadath / RAA Canada

EVERYONE WHO HAS AN OIL FILTER should have his own filter cutter so that he can inspect to see whether the engine is "making metal." Deal Associates made the one that I bought at Sun n Fun, and another good unit is made by Airwolf and marketed by ATS. Each costs $90 and the peace of mind is worth the money. The object of the game is to to cut the metal filter housing without covering the engine compartment with oil and to remove the paper filter element. Oil filter cutters work like a pipe cutter but they are designed to hold the filter square to the sealing face while the roller does the cutting. One or two turns will cut through the thin metal oil filter housing. Slice through the edges of the paper element with a sharp knife and nip the metal bar to free the ends. Then squeeze all the oil from the filter paper, lay it out under a good light, and inspect for tiny flecks of metal that have come from bearings, camshafts etc. If you see even a few tiny flecks, take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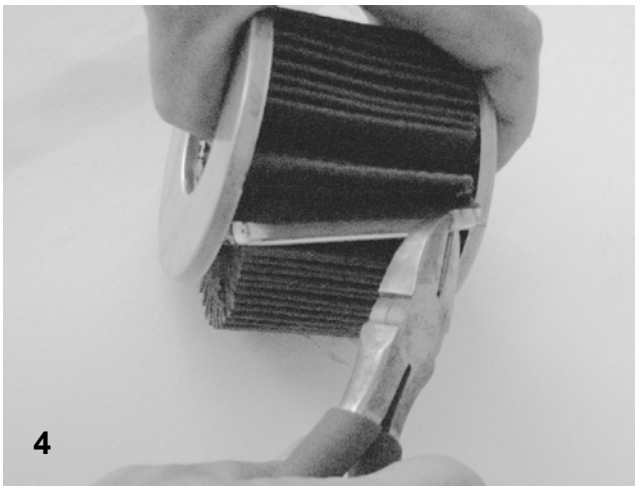

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Using an Oil Filter Cutter:

1: Open a plastic bag and surround the filter to catch any oil spills

2:The filter gasket surface is placed square against the cutter frame. The cutter wheel must not be allowed to drop into the groove machined into the filter housing, because that part is solid metal. You want to cut the thin stuff next to it. Wind the cutter knob in half a turn and rotate the filter. Give it another half turn of the knob and rotate again. The thin filter housing will then separate.

3: Cut the edges of the paper element with a razor knife

4: Nip the metal that clamps the end of the element

5: After squeezing out all the oil, lay the paper out and inspect every inch for metal flecks. These came from your engine. Your local AME can tell you which ones are a concern.

the filter element to your local AME for his opinion whether it is a concern. Afterwards, save the filter element in a glass or tupperware container and write on it the date of inspection. That way if the subsequent oil filter shows more metal you can compare.

The Deal Associates cutter is sold by Aircraft Spruce, and the Airwolf is from Leavens. RAA

The Impossible Turn

In a 1982 paper presented to the AIAA 20th Aerospace Sciences Meeting in Orlando. Florida, Mr. David Rogers contended that the turn-back manoeuvre can be successfully completed provided that you are expecting the failure and have received training in the correct flight profile. He conducted a series of simulator and airborne trials to prove the point. Using 20 pilots of varying experience, he conducted a series of tests from a 3000 foot runway, both in a simulator and airborne.

During the first series, the pilots were not prewarned that the engine would fail at 500 feet. Eightyfive percent successfully landed straight ahead. Of the three who attempted the 180, two "died" in the classic stall/spin. One reportedly was successful.

Trials were then conducted with the pilots prewarned of the impending engine failure and using either 30 degree or 45 degree bank turns for a 210 degree heading change to return to the departure runway.

The trial contended that a 45 degree bank turn, just barely above the stall, is the most efficent manoeuvre. However, it is also a very high risk that leaves little room for error. A light wind-gust could easily result in the fatal stall/spin at an altitude from which there is no time to recover (the simulator and limited airborne tests were conducted under calm conditions - not all that common in real life). In addition, the simulator tests provided data only for airspeeds, altitude and bank angle. No data was provided for distances covered over the ground during the manoeuvre, either for the simulator tests or for the tests at altitude.

Nevertheless, with prewarning and training provided to the pilots, the 30 degree bank simulator tests were claimed "successful", as were the tests at altitude. But the low level airborne trials were not. The results revealed that the "test" pilots had to add power the the "failed" engine, or else they would have touched down 200 to 300 feet short of the runway.

The 45 degree bank trials were also claimed as "successful" both in the simulator and at altitude. But again, no ground distance data was provided, and therefore, this data is suspect. No 45 degree low level airborne tests were attempted, or if attempted they were not documented in the presentation. Perhaps no pilot was brave enough to try.

There are many options in dealing with an engine failure after takeoff, depending on the length of the departure runway, the surrounding terrain, and the altitude at which the failure occurs:

-landing straight ahead on the remaining runway available;

-landing on a crossing runway, if one is available;

-landing straight ahead, if the terrain is suitable;

-turning in either direction, altitude permitting, if the terrain left or right is more suitable for a forced landing; or

-attempting the 180 back to land downwind on the departure runway.

If you are operating from a longer runway, and if your engine fails at higher altitude, you may be able to successfully trade that altitude for the turn-around manoeuvre. However, many private pilots operate from small strips in the 1500 to 3000 foot range. These are often grass or gravel surfaces, and aircraft performance will not match that shown in the aircraft operating manual. Hence, the original ASL article calculated from the starting point of 50 feet, over the end of the runway, and at the specified climb speed.

The accident files are replete with occurrences whether on wheels, skis or floats, in which the pilot at low level (below 1000 feet) attempted the impossible 180-turn, and unfortunately there were rarely any survivors.

In Mr. Rogers' study, 100 percent of the pilots who elected to land straght ahead did so successfully, and in real life, landing straight ahead seldom results in serious injuries. It's hard to argue with success.

writing there has been no response. The next step will be to cut coupons from the material and have test bars pulled to determine whether the material meets the ASTM standard for 6061T6.

New in Canadian Skies, the 2006 on-line way

Member Camille Villeneuve from Kamloops has been flying a Beaver ultralight for many years and he is committed to light aviation. Camille is also the editor of his chapter's newsletter, and his on-line version is the best that I have ever seen. You may see it at http://www.ocis.net/tvsac/newsletter.html This newsletter is full of chapter news, in flight photographs, and members, buy and sell photo ads.

For the past few years Camille has been designing and building his own ultralight, powered by a Rotax 447. The cockpit has a passing resemblance to a Beaver 550, but it is unique in having two tailbooms with twin vertical fins and rudders. The plane is so clean that it will do over 90 mph, a great improvement on the Beaver 550. Camille has sent a link to a video of his new "Proton" untralight in flight. http://www.ocis.net/tvsac/Proton.MOV Congratulations Camille on a job well done, on both your Proton and your chapter newsletter!

Keep in Touch With Your Board of Directors!

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The Recreational Flyer is pleased to offer you colour advertising within the magazine. Previously limited to the back cover, we have added 4 new colour pages which will be available with limited space for your advertising needs. Our rates for both black and white and colour ads remain very competitive and you reach a captive and qualified audience.

Ads can be emailed to :raac@inforamp.net
Deadline for submissions is the first of the month preceding date of issue.
Artwork: Rates apply to camera ready artwork. Digital files are preferred and should be sent as email and in .txt format, PDF, JPEG, MS WORD, Photoshop or other common file types. Advertising is payable prior to printing of magazine unless other arrangements have been made. Payment is in Canadian funds. 10% Discount applies to one year (6 issues) insertion paid in advance. Commercial Classified ad rates 1/8 page minimum.

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Please note: Ads running more than 3 issues must be renewed to guarantee continued display in the magazine.

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The Recreational Flyer is devoted to the aerospace sciences. The intention of the magazine is to promote education and safety through its members to the general public. Material in the Flyer is contributed by aerospace engineers, designers, builders and restorers of aviation devices and vehicles, used in an amateur capacity, as well as by other interested persons, publications and organizations. Contributions to the Recreational Flyer are voluntary and without remuneration. Opinions expressed in articles and letters do not necessarily reflect those of the Recreational Aircraft Association Canada. Accuracy of the material presented is solely the responsibility of the author or contributor. The Recreational Aircraft Association Canada does not guarantee or endorse any product offered through articles or advertising. The Flyer and its publisher welcomes constructive criticism and reports of inferior merchandise or services offered through advertising in the publication.

For Sale

McCauley IC160/CTM7557 , with logs - $1,000 . Prop bushings set Lycoming O320 diameter 5/8" drilled 7/16" - $150 Bill Smith evergreeninternational@sympatico.ca 705 526 9279

SPACEWALKER 2 : 38 Hrs. Engine and airframe. Lycoming 0-290-D2 135 HP. Full Flow Oil Filter Cyl. Head Temp. Gauge Oil Pressure and Temp Gauge Electric fuel gauge all tanks Electric start Val Comm 760 radio Narco Transponder mode C ELT Fitted Intercomm Fitted 18 Gal Main tank 2 - 5 Gal wing tanks Polished prop and Spinner Absolutely outstanding aircraft. $23,000.00 CDN. O.B.O. George 403-931-3449 George@ace-aero.com e-mail for pictures

For Sale - one three blade 68" warp drive prop for Rotax 582 engine, one blade missing Contact Don (519) 372-1383 or kinger@bmts.com.

For Sale: Zenair Zodiac 1996. Cont. 0-200 125 hrs. A/F 340 hrs. Beautiful flyer. Photos available on request. Must sell, bought RV. Asking $34,000 CDN. 519-442-2962 dorothybenton@hotmail.com

For sale: 3 sets of axles, 1 π" x .120" 4130 steel tube. Mains are 8" long, nose is 9" long. No fittings cut or welded, no holes drilled, just the plain tube. Offers on one or more sets. Proceeds to RAA-Toronto Region. Ken Yates, 905-857-3218, kennan@rogers.com.

Stolp Starduster II, 200 HP, C/S, Inverted, Canopy, 300 TT, $35,000, PA22/20 Super Pacer project, wings ready for inspection, fuselage lengthened & painted, every thing here to complete, 200 HP, 3 pld C/S McCauley, 2400 Floats $40,000. Buy both, fly the Starduster finish the Pacer, good deal for both. 1-250-785-6789 Jim. Central Time.

Air Strip, new 42'x40' hanger, trout stream, trout ponds, sugar bush, fruit, newly renovated bungalow, 61 acres. Mt Forest

Scales Available to RAA members

RAAC has sets of electronic scales that are available to members across the country for doing the weight and balance calculations on their aircraft. Here Member Gary Walsh uses the scales to verify the C of G on his amphib Kitfox. Only $30 for weighing. Contact the RAA office at 1-800-387-1028 to reserve a set.

$359,000 e-mail pennantmanor@hotmail.com

For Sale: Hush-A-Com 2-place intercom with 2 headsets and boom mics. Voice-activated, operates on 9V or acft power. Has its own PTT switch. Exclnt cond; no tears, breaks, or corrosion. $250 or B.O. Ken Yates 905-857-3218, kennan@rogers.com

Rotax 912 80 hp rebuilt from a Diamond Katana core, by a fully qualified Rotax factory trained technician. $10,000. Please call Jake at 519-648-2044

McCauley fixed pitch prop 1C1601 CTM 7553, from a 150 hp C-172, 75" pitched to 53". Included prop logbook. Asking $900. Contact Adler Aviation 51-648-3886

2006 Challenger 2. 15 TTSN Rotax 503 elec. start, full enclosure and most options. All flight and dual Engine instruments. Priced well below replacement cost. Great fun flyer. Built by experienced builder. Why wait - fly now. $25,000 Cdn. Call 905 892 9649 or rjohnson18@cogeco.ca for additional information or pictures.

1 Set of Zodiac 601 Wings HD complete with wing lockers and joiner plates. Total time 450 HRS. No damage. Asking $1950.00 CN. 2 New Zodiac series Canopies grey tinted, still with flanges and paper covered. Asking $ 550.00 CN each. Please contact Erwin Hornemann @ 905 457 3716, ore Email me @ erwin.hornemann@sympatico.ca

CF-VML (Classed as "Amateur built") 1968 Taylor Mono Plane Aircraft legal to return to flight. 150 hours TTAF (flown with VW engine), One owner ago removed VW engine. A75 with very low time slick mag's 150hours SMOH added and current owner and signed off by Ministry. Currently based at CYKF (Waterloo)Too many projects on the go this one needs a new home. Willing to part out. Call Darren Pond 519-651-2522 or pilotpond@rogers.com for details.Asking $4000 for engine and $3000 for fuselage or best offer. I have over $12k invested.

EA81 subaru engine by NSI, 110 hp. model .complete firewall forward. Presently flying on a kitfox model 5 ,includes a in-flight adjustable propeller,(model cap 140). Total time since new 70 hrs. Asking $ 14500 or best offer.call yvon at 1-705-967-5311 after 6 pm. or at work 1-705-897-3333

continues

EA-81 by Reductions, 105 hp at 4500 rpm. Holley carb and stainless exhaust, chrome valve covers and oil pan.Unit comes with a new 72 inch Warp Drive prop. Engine has run up time only due to a change of plans. Paid $6000:: Picture available∑MAKE ME AN OFFER. bwkirk@mts.net or 204 488 0829

Warp Drive 72 in , 3 blade RH prop.,"HPL" hub good for 912/914 or Subaru. New in box. New price $675 US , Sell for $450 Can. OBO bwkirk@mts.net or 204-488 0829

Avid Catalina complete kit. Purchased in 1999 for $22,900, will sell in a weak moment for $15,000CDN. 613-756-3815 or 613-281-7027

1995 Buzzard Special, registered in ultralight category extremely stable performer 80 hp Rotax 912 with 200 hrs 80 mph cruise at 75% power, 6 month written warranty, $32,900 or $9,900 less engine and equipment, also has mount for Rotax 582. Call Mac at Macpat Rotac Service Center 519 848 3392 or macpat@bellnet.ca

AIRSTRIP, new 42X40 hangers, trout stream, stocked trout ponds, sugar bush (with marketable timber)
Fruit trees for U-pick, newly renovated bungalow with gorgeous views of the ponds, bush and runway, 61 Acres, $359.000.00 Ayton On. 519--665--2496

1 Pair of Zenith CH-200/300 wheel pants. Ken Yates 905-857-3218; kennan@rogers com

Wanted

Wanting to buy a 150 hp Piper Pacer. 604 536 5155, or email ddanylyshyn@hotmail. com
Wanted to purchase good or rebuild able IO 540 for Steen Sky bolt project, also any airframe or parts for the same. Wanted to purchase FLYING OR PROJECT DR1 Fokker Tri Plane. OFFICE 1-705-653-4525 or davidcarlaw@prototyperesearch. com
Ads run for a maximum three issues depending on space available. Please direct all classified inquiries and ad cancellations to wolfpack@sentex.net

Rollout of the Avro Arrow replica at the former DeHavilland building in Toronto, now the Toronto Aerospace Museum. RAA life member Bill Tee was part of the original production team, and he is also part of the team that worked for eight years to produce this outstanding replica.

On The Internet:
http://www.ocis.net/tvsac/buyandsell.html -more ads from our Kamloops chapter
http://www.lyncrest.org/sfcclassifieds.html -more ads from our Winnipeg chapter

New In Canadian Skies

Camille Villeneive's
Proton

Late in 2002, I started working on the design for a basic ultralight, a twin-tailboom with a pusher engine. At first it was only doodlings on paper, followed by work with TurboCAD, then experiments with X-Plane. The actual construction on C-IGNW began in December 2004, on and off in my spare time.

Finally the Proton had its maiden flight on August 13th, in front of my wife Judy and my old friend Tony Bellos.

Wingspan is 26 feet, take-off weight at 570 pounds. So far I have flown it for only five hours, taking it a few times to 95mph, but it cruises best at 75. Landing is just below 45, so it is a hot plane compared to my old Beaver single-seater. It is now powered by a Rotax 447, but I plan on replacing that with a 503 later.

RAA Chapters and Meetings Across Canada

The following is a list of active RAA Chapters. New members and other interested people are encouraged to contact chapter presidents to confirm meetings as places and times may vary.

ATLANTIC REGION

HAVELOCK NB: Weekly Sunday morning get together year round, all aviation enthusiasts welcome. Havelock Flying Club - 25 mi west of Moncton. Contact Sterling Goddard 506-856-2211 sterling_goddard@hotmail.com

QUEBEC REGION

COTE NORD (BAIE COMEAU): Meeting times to be advised. Contact Pres. Gabriel Chouinard, 418-296-6180.

LES AILES FERMONTOISES (FERMONT): First Sunday 7:30 pm at 24 Iberville, Fermont. Contact Pres. Serge Mihelic, 418-287-3340.

MONTREAL (LONGUEUIL): Chapter 415, Meeting in French second Wednesday at 8 pm, at CEGEP Edouard Montpetit 5555 Place de la Savane, St. Hubert, PQ. President Jacques Genest president@raa415.qc.ca (450) 447-9042

OUATOUAIS/GATINEAU: Every Saturday 9:00 am to noon at the restaurant l9Aileron in the airport terminal. Contact Ms N.C. Kroft, Gatineau Airport, 819-669-0164.

ASSOC DES CONSTRUCTUERS D'AVIONS EXPERIMENTAUX DE QUEBEC (QUEBEC): Third Monday 7:30 pm at Les Ailes Quebecoises, Quebec City Airport. Contact Pres. Ray Fiset, 418-871-3781. rayfiset@qc.aira.com

ASSOC AEROSPORTIVE DE RIMOUSKI: First Saturday at 9:00 am, La Cage aux Sports, Rimouski. Contact Pres. Bruno Albert, 418-735-5324.

ASSOC DES PILOTES ET CONSTRUCTEURS DU SAGUENAY-LAC ST JEAN: Third Wednesday 7:00 pm at Exact Air, St Honore Airport, CYRC. Contact Marc Tremblay, 418-548-3660

SHERBROOKE LES FAUCHEURS de MARGUERITES. Contact Real Paquette 819-878-3998 lesfaucheurs@hotmail.com

ONTARIO

BARRIE/ORILLIA: Fourth Monday 7:30 pm, Lake Simcoe Regional Airport. Contact Treas.Gene Bemus 705-325-7585 gene@encode.com

COBDEN: Third Thursday 8:30 pm at Club House, Cobden Airport. Contact Pres. Clare Strutt, 819-647-5651.

COLLINGWOOD AND DISTRICT: The Collingwood and District RAA, Chapter 4904, meets the first Thursday of every month, at 7:30 p.m. except July and August, at the Collingwood Airport or at off-site locations as projects dictate. For more information, contact Keith Weston, 705-444-1422 or e-mail at kcweston@sympatico.ca

EXETER: Second Monday 7:30 pm at Summers-Sexsmith Airfield, Winters-Exeter Legion. Contact Pres. Ron Helm, ron.helm@sympatico.ca 519 235-2644

FLAMBOROUGH: Second Thursday 8:00 pm at Flamborough Airpark. Contact Editor Frank Ball fdnmeball@sympatico.ca 905 822-5371

HAMILTON: Second Friday 8:00 pm Months of Feb, April, June, Aug, Oct, Dec, at Hamilton Airport. Contact Pres. Brian Kenney, 905-336-5190

KENT FLYING MACHINES: First Tuesday 7:30 pm at various locations. Contact President , Mac Mazurek 519-692-5309 macmaz@mnsi.net

KITCHENER-WATERLOO: Meets the third Monday of each month in the upstairs meeting room of the cadet building at CYKF, except during the summer months when we have fly-ins instead. Please contact arankaddd@rogers.com for information, or call 519-885-1155.

LONDON-ST. THOMAS: First Tuesday 7:30 pm. At the Air Force Association Building, London Airport. Contact President Angus McKenzie 519-652-2734 angus@lweb.net

MIDLAND-HURONIA: First Tuesday 7:30 pm Huronia Airport. Contact Secretary, Ted Aldred 705-526-4909 wings@csolve.net

NIAGARA REGION: Second Monday 7:30 pm at Niagara District Airport. Contact Pres. Len Pettersen swedishcowboy29@aol.com

OSHAWA DISTRICT: Last Monday at 7:30 pm at Oshawa Airport, 420 Wing RCAF Assoc. Contact President Chris Gardiner 905-668-5703 cgardn628@rogers.com

OWEN SOUND Contact President Roger Foster 519-923-5183 rpfoster@bmts.com

OTTAWA/RIDEAU: Kars, Ont. 1st Tuesday. Contact: Secretary, Bill Reed 613-831-8762 bill@ncf.ca

SAUGEEN: Third Saturday for breakfast at Hanover Airport. Contact: Ed Melanson 519-665-2161 meled@wightman.ca

YQG AMATEUR AVIATION GROUP (WINDSOR): Forth Monday, 7:30 pm Windsor Flying Club, Airport Road, Contact: Kris Browne e_kris_browne@hotmail.com

SCARBOROUGH/MARKHAM: Third Thursday 7:30 pm Buttonville Airport, Buttonville Flying Clubhouse. Contact Bob Stobie 416-497-2808 bstobie@pathcom.com

TORONTO: First Monday 8 pm at Ch 41 Hangar on north end of Brampton Airport Contact: President, Earl Trimble 905-787-8524 northerntailwind@aol.com

TORONTO ROTORCRAFT CLUB: Meets 3rd. Friday except July, August, December and holiday weekends at 7:30 pm Etobicoke Civic Centre, 399 The West Mall (at Burnhamthorpe), Toronto. Contact Jerry Forest, Pres. 416 244-4122 or gyro_jerry@hotmail.com.

WIARTON: Bruce Peninsula Chapter #51 breakfast meetings start at 8:30am on the second Saturday of each month in the Gallery of Early CanadianFlight/Roof Top Cafe at Wiarton-Keppel Airport. As there are sometime changes, contact Brian Reis at 519-534-4090 or earlycanflight@symptico.

MANITOBA

BRANDON: Brandon Chapter RAA meets

on the second Monday of each month at the Commonwealth Air Training Plan Museum at 7:30 PM except in the months of July and August. Contact Pres. John Robinson 204-728-1240.
WINNIPEG: Winnipeg Area Chapter: Third Thursday, 7:30 PM. Contact Jill Oakes 204-261-1007 raa_wpg_executive@yahoogroups.com

SASKATCHEWAN
NORTH SASKATCHEWAN: Third Monday 7:30 pm at Westwind, Hangar #3. Contact President Garth Pippin for info at 306-666-4476

ALBERTA
CALGARY chapter meets every 4th Monday each month with exception of holiday Mondays and July & August. Meetings from 19:00-22:00 are held at the Southern Alberta Institute of Technologies (SAIT) Training Hangar at the Calgary Airport. Join us for builder discussions, site visits, tech. tips, fly out weekends and more. Contact president Calvin Thorne at 403 932-4325 or email: cbthorne@telus.net
EDMONTON HOMEBUILT AIRCRAFT ASSOC: First Tuesday 7:30 pm EAHS boardroom. Contact President Bill Boyes 780-485-7088
GRANDE PRAIRIE: Third Tuesday, Chandelle Aviation Hangar, contact Jordie Carlson at 780-538-3800 work. or 780-538-3979 evenings. Email: jcarlson@telusplanet.net
MEDICINE HAT: Last Thursday of the month 7:30 pm RAAC Club Rooms, Airport. Contact Secretary, Boyne Lewis 403-527-9571 handblewis@thehat.ca

BRITISH COLUMBIA
ABBOTSFORD: Third Wednesday 7:30 pm Abbotsford Flying Club, Abbotsford Airport. Contact President, John Vlake 604-820-9088 email javlakeca@yahoo.ca
DUNCAN: Second Tuesday 7 pm members homes (rotating basis). Contact Pres. Howard Rolston, 250-246-3756.
OKANAGAN VALLEY: First Thursday of every month except July and August (no meetings) at the Kelowna Yacht Club. Dinner at 6:00pm, meeting at 7:30pm Contact President, Cameron Bottrill 250-558-5551 moneypit@junction.net
QUESNEL: First Monday/Month 7:00 p.m. at Old Terminal Building, CYQZ Airport. Contact President Jerry Van Halderen 250-249-5151 email: jjwvanhalderen@shaw.ca
SUNCOAST RAA CHAPTER 580: Second Sunday 13:30 pm Sechelt Airport Clubhouse, sometimes members homes. Contact Pres. Gene Hogan, 604-886-7645
CHAPTER 85 RAA (DELTA): First Tuesday 8pm, Delta Heritage Airpark RAA Clubhouse. 4103-104th Street, Delta. Contact President Gerard Van Dijk 604-319-0264, vandijkg@yahoo.ca. Website http://raa85.b4.ca.
VANCOUVER ISLAND AVIATION SOCIETY (VICTORIA): Third Monday 7:30 pm Victoria Flying Club Lounge. Contact Pres. Roger Damico, 250-744-7472.
THOMPSON VALLEY SPORT AIRCRAFT CLUB: Second Thursday of the month 7:30 pm Knutsford Club, contact President - Dick Suttie Phone 250-374-6136 e-mail - richard_suttie@telus.net
ALASKA HIGHWAY: Third Wednesday of the month (except July & August) at 7:30 PM, alternating locations: even numbered months in Fort St. John and odd months in Dawson Creek. Phone Richard Lawrence for location, details at 250-782-2421.
Chapter executives please advise of changes as they occur. For further information regarding chapter activities contact RAA Canada, Brampton Airport, 13691 McLaughlin Rd. Cheltenham, ON L0P 1C0 Tel. 905-838-1357, Fax 905-838-1359 or call toll free 1-800-387-1028