

# 5 Kywriter.

# Monthly Newsletter of the Calgary Ultralight Flying Club

# August 2001

# From the Cockpit

bu Brian Vasseur

It's fly-in season and I've decided that there's nothing better than fly-in breakfast pancakes. Bob Kirkby had his recently with an excellent turnout, and with perfect weather. It was a great opportunity for everyone to show off their planes and just enjoy that weekend hanging out with the guys.

I came with a friend of mine and our kids. She's really interested in ultralights and this seemed like a good opportunity to show her what we do on weekends. About the same time we started to walk around checking out everyone's planes some of the guys decided to do some passes down the runway to show off their planes. For the first while it was pretty average, just takeoff, do a circuit, a pass down the runway then another circuit. It didn't take long though before the passes turned into high speed passes and steep climb-outs.

About this time Pam's looking at me with an expression of "How much testosterone do these people build up before they come out here". I'm starting to think about that line in Top Gun where Goose says over the radio "The Defence Department regrets to inform you your son's are dead because they were stupid!".

We weren't seeing anything that would have gotten anyone violated, but from 50-100 feet off the runway the climb-outs were getting steeper and you could tell that airspeed was dropping off before people leveled out. This was making me a bit uncomfortable. First, ultralights tend to have a lot smaller margin of airspeed between stall and top speed. At a low altitude it doesn't give you a lot of time to recover if you let your airspeed drop too low by holding that climb for that extra half second. Second was that along with my guests there were other non flyers and kids there. We're still carrying that myth from the 80's that ultralights are dangerous, so we owe it to ourselves to be a little more prudent about keeping an extra margin of safety.

The last pass of the day was the one that caused me the most concern. A pilot with a passenger did a steep climbout at takeoff followed by a fairly steep bank. A couple of pilots standing with us questioned whether this pilot knew Lenora Crane (Transport Licensing) was attending. While I don't think this particular maneuver was in violation, there was certainly consensus among a few of us that this was pushing it just a bit too far. Lenora or other Transport inspectors don't have a choice when they see a violation, they have to deal with it. I really like to have Transport involved in

activities where ultralights are involved and I like it best when they don't have to take remedial action with someone.

That being said, I'll be the first to admit that it feels good to do steep climbs and tight turns and to really enjoy what you can do with your plane. Nonetheless, I don't think there's any excuse at all to pull G's at low altitudes, whether in an ultralight or a certified aircraft.

One of the first things you learn during training is that altitude is life insurance. Even 500 feet buys a lot of time and kinetic energy that can help you out of a bad spot. The other thing you should have learned during training is that the slowest speed you can go while in the air is your stall speed so in a crash that's the best you can hope for. Something you may not have learned in training is that impact forces increase by a factor of 4 every time your airspeed doubles. That means that the 4G crash at 30mph that you may have walked away from becomes a 16G crash at 60mph. That's almost the limits of a TSO'd seatbelt and it's a guaranteed ambulance ride.

So far we're having great flying weather, and with 116 members our club is going to be doing a lot of flying. Let's make sure to stay focused when we're in the air, and keep the showoffitis urges out of the pattern.



**Trailer** - Custom 24 ft aluminum trailer ready to enclose. Buy for cost \$2500. And get the airplane inside for free. Russ White 350-353-2492. (8/01)

1995 TEAM Himax.- 314TT, 60hrs SMOH on Rotax 503DC, 2-blade ground adjustable prop, good panel, spinner, speed fairngs, VHF antenna, large cockpit, always hangared. Great performance and handling. Only \$9500. Call Stu at (403) 255-6998 or e-mail <a href="mailto:simpsont@cadvision.com">simpsont@cadvision.com</a> for pics and info. (6/01)

Rans S-12 - 350 hrs TT, 150 on Rotax 582 full enclosure. E-mail edantoni@hotmail.com for photos. Ed D'Antoni 403 247-6621(5/01)

Avid STOL - 250 hrs as US Experimental N17AF. 5 hrs since total rebuild and new 582 E-Box. \$18,000 or \$11,000 without engine. A 503 would be more than adequate for this aircraft. Will take new or late model Rotax 912 in trade. Ed D'Antoni 403 247-6621(5/01)

Zodiac CH601 for rent - \$65.00 per hour with instructor, or \$50.00 per hour wet. Aircraft can be kept at Indus or Springbank. Please call 40-617-1831 for more details.(5/01)

1994 Tundra - ser. #26, 503 electric start,long range tanks,trim control, new paint/fabric.(Nov./2000) TT 90hr. engine 70hr. Flys hands off. Very gentle roll rate. \$14,500 Call Garrett at 874-6447or e-mail kommair@telusplanet.net. (5/01)

1999 Chinook Plus 2 - Advanced Ultralight, always hangered, 34 hrs TTSN, Rotax 503, DCDI, electric start, oil injection, 3 blade prop, extended cabin, hydraulic brakes, tundra tires, new skis, excellent condition, \$23,000 OBO. Jim (403) 547-6714 or venturae@home.com. (4/01)

Rotax 503 - new, OTT, single carb, new muffler, \$3500 OBO. Chuck Duff 938-6157 (4/01)

Flying-Flea HM-293 - famous Mignet Aircraft redesigned by Grunberg as an ultralight. More than 100 flying. French plans and brochure with English translation, \$110.00, mailing included. Paul Pontois, 1890 Rang des Chutes, Ste-Ursule, Quebec JOK 3MO 819-228-3159 (4/01)

Super Koala - Rotax 503, DCDI, Culver wood prop. Airspeed, Altimeter, Tach, CHT, EGT, Hour meter, Fuel gauge. Heated cockpit. Less than 200 TT on new engine and airframe. This is an attractive, predictable and easy to fly taildragger. Open to any serious offers. Dale (403)293-3826. (4/01)

Renegade Spirit - TT 260, 65hp Rotax 532 70 hrs since rebuild, excellent condition, always hangared, see pictures and details at <a href="https://www.skywalker.ca">www.skywalker.ca</a>, REDUCED, \$22,000. Bob Kirkby 403-569-9541 (2/01)

1984 Chinook WT-2 - 6 hrs on Rotax 377, 10 gal tank, ICOM A4 radio, wheels, skies, floats, & more, \$5000. Don Leonzio 250-427-2046. (2/01)

Rotax 503 - DCSI, "A" box, 228 TTSN by Reg's Engine. 30 STOH. Currently on a Beaver RX 550. Well maintained, strong engine. \$2500. Call Ron at (403) 345-3013 (2/01)

Forward ads to Bob Kirkby 569-9541.

#### Ads reprinted from the St. Albert Flying Club Newsletter

ICOM A21 Transceiver - comes with car cigarette lighter adaptor, ptt, protective cover, \$425. Chris Barre 780-963-1598.

1984 Gentex heli flight helmet - has clear ratcheted visor, Sigtronics electrical with standard 2-pin connections and mike muff. In great shape. Perfect for open cockpit aircraft. \$400 OBO. Chris Barre 780-963-1598.

Magal Cuby I - 1984, 300TTSN, 3TTSNE, Rotax 503 SCDI, NDH, wings recovered Oct. 2000, heel brakes, ASI, ALT, compass, tach, CHT, dual EGT,

\$14,000 OBO, 780-459-0813,

Floats - with lockers, spray rails, water rudders and rigging. Suitable for ultralight or home built, weight 130lbs, \$3000 OBO. Reg Lukasik 780-459-0813.

Hirth F-23 - used 6 hrs, 40 Hp, \$2,800.00 Dan (780) 452-2491

#### Skywriter

Skywriter is the official newsletter of the Calgary Ultralight Flying Club and is published 12 times per year. Forward your articles and letters to:

Editor: Bob Kirkby 569-9541 e-mail: kirkby@skywalker.ca

Assistant-editor: Bernie Kespe (see below)

#### Calgary Ultralight Flying Club

Meetings of the Calgary Ultralight Flying Club are held on the second Thursday of every month, except July and August, at 7:00 pm, at the Northeast Armoury, 1227 - 38 Avenue NE.

President: Brian Vasseur 226-5281 e-mail: vasseurb@cadvision.com

Vice-President: Bob Kooyman 281-2621 e-mail: kooyman-eng@home.com

Secretary: Bernie Kespe 255-7419 e-mail: kespeb@cadvision.com

Treasurer: Carl Forman 283-3855 e-mail: formanc@cadvision.com

Director: Dan Mitchell 238-4254 e-mail: mitchell@cadvision.com

Past President: Wilf Stark 935-4248 e-mail: wstark@compuserve.com

Visit the CUFC web site: www.cadvision.com/cufc/

# **BBQ** Postponed

The CUFC BBQ was postponed from July 29 to August 12 due to forecast rain and lack of registrants

Be sure to register for August 12 by calling Bernie at 255-7419 or email to <a href="mailto:kespeb@cadvision.com">kespeb@cadvision.com</a>

# A Bushmaster Adventure

By Stu Simpson

This isn't going so well, I thought. I was rolling down Runway 07 at some grass strip I'd never heard of just west of Edmonton in an airplane I'd bought just minutes before. Only I wasn't rolling anywhere near fast enough because the engine just wasn't cranking the prop the way it should.

A few seconds later I staggered anaemically into ground effect and reluctantly realized I had to do something different if I was going to get this airplane back to Kirkby's.

I cut the throttle and trundled over to the side of the runway where everyone was watching me. Then I tried to remember how I'd gotten myself into this.

#### A Ten Year Airplane

I'd reached the point in my recreational flying career where I needed a new airplane. I'd simply outgrown my wonderful little Himax. Besides, I wanted a second seat to carry people and stuff. I've been mighty envious of Glen Bishell when he carried another pilot on the big cross-country flights we've done. My wife made it clear that my next airplane was going to have to last me 10 years. Trouble was, shopping around made me realize that either buying or building a second seat was going to be really expensive!

So following Bernie Kespe and Guy Christie's lead I started looking very seriously at building a relatively cheap Volksplane VP-2. I even acquired a set of plans.

My lovely wife, on the other hand, started looking very seriously at divorce lawyers. She's always been very supportive of my flying pursuits, but she drew the line at me constructing another plane. So, building was out of the question. I'd have to find something already built and flying. And cheap!

We decided on a fairly loose budget and I started poking around a bit more enthusiastically.

For instance, I sat in Ed D'antoni's very solidly built Avid Flyer, one of the earliest models of that line. I was definitely too big for it; the cockpit



Stu's new Bushmaster ready to head to it's new home at Kirkby Field. Photo by Chris Barre.

ceiling scrunched me over so much my neck hurt for two days afterward. I had to reach into the right seat to move the stick because there wasn't enough room on my side. It's a great plane, but not for someone built like me.

I took a day to drive to Edmonton to see a Sylvaire Bushmaster that I learned was for sale. The owner, a true gentleman

named Chris Barre, found it in a barn and with professional help from Dan Pandur's Snowbird Aviation, completely restored and rebuilt it.

Then he painted it green. Camouflage green. I loved it!

To make a long story short, I bought it. The price was very fair and it included a set of skis, a headset and an intercom.

I'm a bit embarrassed to mention the Bushmaster also came with a GPS. For years now I've pooh-poohed GPS, saying they were for girlie-baby nav-sissies. "Real men use maps," I told them all. Then someone hands me a GPS for free.

Carl and Bernie haven't let me forget it, though to be fair, I've not used it in an airplane yet.

#### Getting It Home

Bernie was kind enough to agree to drive

me to Edmonton to pick it up, then act as my ground crew on the way back. Carl, bless his heart, jumped in, Carl's too. participation means all that much more to me because he sat in the jump seat of Bernie's truck for more than half the way there. I sat there the last half and I know how sore MY butt was. Carl's

my hero forever.

We showed up at the field where Chris kept the Bushmaster at about 11:30 a.m. He was nowhere to be seen but the plane was out of the hangar with the prop off, just like I'd asked. Chris left a little note on the plane saying he'd be back shortly. The plan was to throw my Ivoprop on for the flight home because I thought I'd get



Check out the camo paint scheme. Photo by Chris Barre

better performance than the plane's wood prop would give. Wrong.

It was kind of a neat airfield, where we were. Some of the hangars looked about ready to collapse, they were so derelict. But one was about as modern as could be, being a Quonset style with fabric (continued on page 4)

#### Bushmaster - continued from page 3

tightened over a tubular aluminium frame. It had a nifty looking little biplane inside. The other planes on the field included an assortment of Spam cans, homebuilts and ultralights.

Evergreen and deciduous trees lined the taxiway and barely left enough room for a plane's wings to scrape past. The runway was also surrounded by trees. I sort of envied the guys flying from there for the constant challenges the field must offer. Without a doubt, the place had character.

Chris returned as we were attaching the Ivoprop. He and I did the deal while Carl and Bernie did the prop. I was a pleased as punch with my new plane.



Chris Barre shows Stu the finer points of operating the Bushmaster. Photo by Carl Forman

I noticed the weather was starting to close up a bit with towering cumulus building in every direction. I was anxious to get out of there.

I flew Norsemans (derived from, and nearly identical to, the Bushmaster) for a summer when I lived in Saskatoon many years ago. Nonetheless, Chris's pre-flight briefing was a nice refresher of what I remembered from those days. He showed me how to start the plane with the electric start and I discovered what a treat that was after more than 15 years of

yanking and cranking! We ran the engine up and saw we needed to back the Ivo's pitch off a bit to get the right RPM.

Bernie and Carl and I fiddled with that for a bit until we figured it was correct, then we fired it up and tried again. The tach showed we had it right.

I got all my maps and snacks ready and took another look at the sky. Things were building quicker now, it seemed. Chris guided me out to the runway so my wings wouldn't prang a tree.

And then there I was, ready to go.

To say I was nervous would be about

right. I was going to fly a new plane, from an unfamiliar field, surrounded by trees, on a 200-mile cross-country trip home. Why should I worry?

#### Try and Try Again

Taxiing out, it all started coming back to me from the Norseman days. Steering was very precise and positive, and the ride was a bit

smoother than the Himax's. I U-turned at the button, double checked everything and went ahead with full throttle.

Remember at the start of this yarn when I said it wasn't going so well? The thing wouldn't accelerate. I looked at the tach and it was barely making 6000. For some reason the engine was bogging and fighting itself. I got into ground effect about a third of the way down the trail, then pulled the power and headed back to the taxiway.

We ripped the spinner off and dialed the prop back a bit. Then I gave it another



Stu takes off on the first leg home; destination Lacombe. Photo by Carl Forman

run. Same thing happened. Looking at the sky, I knew we didn't have much time before the CBs would be upon us. We decided to throw the old prop on, the one with which Chris had been flying successfully for all his hours.

I was really nervous when I got to the end of the runway, but the 503 revved up beautifully this time. There was a noticeable increase in thrust as I started moving. After a few seconds I pushed the stick forward to get the tail up. Nothing. Then I remembered this isn't the Himax. I left the stick a little forward and about the same time the tail came up the plane felt like it was ready to fly.

I kept it on the ground a few seconds longer and then let it slip into ground effect. We stayed that way for a little while longer, building up speed to help get above the trees and their inherent mechanical turbulence.

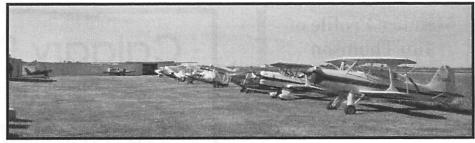
The climb rate was definitely less than the Himax, but at least it was steady and constant around 300 feet per minute. I saw the high-tension lines off to my right and knew I could clear them with no problem. I turned south and into the wind, slowly clawing my way upward. My destination was Lacombe.

After I cleared the power lines I got my bearings and started figuring how to stay clear of both the Edmonton International control zone and the thunderstorm directly ahead.

To be continued in the September Skywriter.

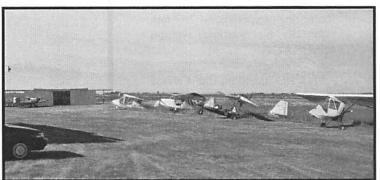
## 10<sup>th</sup> Annual Kirkby Fly-in Breakfast a Big Success

Over 50 soles and 14 airplanes arrived for the July 14<sup>th</sup> fly-in breakfast at Chestermere Kirkby Field. The weather was perfect and everyone ate lots and had a great time.



Lots of interesting aircraft were available for viewing.





Photos courtesy Brad Lawrence

## Vulcan Fly-in Breakfast -July 15<sup>th</sup>

The next day, July 15<sup>th</sup>, Brad Lawrence, Allan Botting and Bob Kirkby flew to Vulcan for another breakfast. Again the weather was perfect and there were lots of airplanes at Vulcan to peruse.

Coming into Kansas city in a Malibu we were being vectored into a long line of airliners in order to land......

KC Appch: "Malibu 229, you're following a 727, one o'clock and three miles."

Malibu: "We've got him."

KC Appch: "Delta 105, your traffic to follow is a Malibu, eleven o'clock and three miles. Do you have that traffic?"

Delta 105: (long pause, and in a thick southern drawl) "Wwweelllll, I've got something down there. Can't quite tell if it's a Malibu or a Chevelle, though."



Bob's Renegade, Brad's Avenger and Allan's Challenger at Vulcan.



Located at Indus-Winter Aire-Park

### Dealers for

**Easy Flyer** 

T.E.A.M. mini-MAX

Build and fly this popular kit for only \$6500.00

Merlin

- Flight Training
- Ground School
- Intro Flights \$25.00
- Gift Certificates
- Rentals (Block time)

# Member Profile of Jim Thomson

by Carl Forman

Jim Thomson joined the Calgary Ultralight Flying Club in the fall of 1999. It quickly became apparent that Jim had many interesting experiences to talk about especially his wartime aviation experiences.

In early 1941 Jim, deciding that Canada needed another air ace, took a train to Saskatoon to enquire about joining the RCAF. Before he knew it, he was filling out forms, answering questions and having doctors perform various indignities on him. He was enlisted as an AC2. Boot camp at Brandon Manitoba was followed by grunt detail at a gunnery school. Jim wasn't flying yet, but at least he could watch the sleek single Merlin powered Fairey Battles come and go. Ground school came next and was followed by a battery of tests with "wash out" always a possibility. selected for elementary flying school at Virden Manitoba and trained on Tiger Moths. This biplane had an enclosed canopy, a Gypsy Major 145 horsepower inline engine and cruised at 107 miles per hour. Jim trained for 60 hours in the Tiger Moth. He was particularly impressed with the strength of the undercarriage.

Next he was enrolled at Service Flying Training School in Yorkton Saskatchewan with the Cessna Crane providing the entertainment. The Crane with two Jacobs 225 horsepower engines cruised at 165 miles per hour. Jim says that it was quite a step up with its two engines, trim, flaps, retractable landing gear, gyro instruments etc. Jim's landing technique must have improved because he didn't mention anything about a sturdy undercarriage. Successful completion of training at Yorkton earned Jim his wings, an achievement which he remembers with pride to this day. Jim was selected to become a flight instructor and told to report to Vulcan Alberta. While there, he flew Cornells, Harvards and Ansons. He ended his instructor days as a Flight

# Calgary Plasta - Blast

Plastic Media Blasting

# The Gentle Paint & Debris Remover

(403) 287-1525 #6, 1115 - 48 Avenue S.E., Calgary, AB

15% discount for all CUFC members

Commander with ten flying instructors reporting to him. Finally in 1944 Jim was posted overseas to take advanced flying training. This training was weighted towards night and radio navigation flying in the Twin engine Oxfords lls. With the war in Europe ending, he was given orders to take conversion training on the Dehavilland Mosquito. The Japanese surrendered before this training commenced and Jim's military career ended. Jim went for a flight on June 20, 1945. He didn't know it at the time, but it would be 55 years before he took his next flight.

After the war he enrolled at the University of Alberta and received his Bachelor of Agriculture degree. Upon graduating took a position as an agricultural researcher but soon found an opportunity with Cominco more to his liking. He stayed with Cominco for 31 years until 1981, ending up as their head of sales promotion in Western Canada. He then ran his own sales training business until 1987 when he decided to retire.

In 1990 Jim was featured in an article in the Calgary Sun. Jim's hobby of riding Harley Davidsons in his late sixties was considered newsworthy. Little did they know that this was only a warm-up.

Commencing in 2000, Jim took ultralight flying lessons from Wayne Winters at Indus southeast of Calgary. He purchased his own Hiperlight ultralight airplane this year. This airplane with its 447cc 40 horsepower Rotax engine cruises at about 65 to 70 miles per hour. He's accumulated about 40 hours since his first flight in late June.

Who knows what's next, an aerobatic endorsement? →



Jim Thomson and his Hiperlight

# , Shrinking Polyester → Fabric

Proper shrinkage is essential to a long-lasting finish. There are several reasons why an aircraft has to be recovered before the full life of the covering system has been achieved. One of these reasons concerns improper shrinking of the fabric when it is placed on an aircraft structure. If the fabric is too loose, it will create a drumming effect in flight, causing the chemical coats to crack and peel. If the fabric has been tightened too much, structural damage may result. Either of these problems will contribute to having to recover your aircraft prematurely. With this in mind, it is very important for you to use the proper procedures to tighten the fabric.

The fabric shrinking process is much simpler today than in the days of Grade A cotton fabric. Cotton fabric has to be initially shrunk with water, and then allowance has to be made for the fabric to continue to tighten through the years from the shrinking of the applied dopes. Attaching the fabric properly prior to the tightening process is essential. If it is too loose when attached and glued, you will never be able to achieve the desired tightness. If it is too tight when attached, you will risk damaging a structure from the subsequent tightening through the years resulting from the actual shrinking of the nitrate and butyrate dope.

Today 's polyester fabrics (Ceconite/Stits), are shrunk to their optimum tightness by applying heat with a regular household iron. Any additional shrinking is not only unnecessary but may be harmful to the underlying structure. Too much extra tightening can actually distort or damage the component parts of the airplane.

When you initially shrink the polyester fabric, you must take into consideration the additional shrinkage that will occur as a result of the dope drying. Non shrinking dopes are available that reduce the amount of shrinkage that will occur. They are not truly non shrinking only less shrinking. Additional plasticizers are added to the dope to reduce the shrinking process. However as



the plasticizers evaporate with time, a certain amount of shrinking will occur. It is best to use non shrinking dopes to minimize this shrinkage.

First, let's look at what actually occurs when you tighten polyester fabric. The fibers have the capability of shrinking a total of about 12 percent. This will occur at a maximum temperature of 350 degrees F. At 240 degrees F. the fabric will shrink about 5 percent. Below 240 degrees F (200 to 225 degrees the fabric will smooth but shrink very little. At a temperature of 370 degrees F. the fibers will actually begin to loosen. At 425 degrees F. the fibers will melt. As you can see, it is extremely important to know the temperature of the device you are using to apply the heat. Because of this, you should use a regular household iron to shrink polyester fabric. The iron should have a rating of at least 1100 watts. Never use a heat gun to shrink. fabric. You have absolutely no idea what temperature is being emitted, and furthermore, the temperature being applied will vary according to how far away from the fabric you hold the gun. Hide the heat gun while you are working with fabric.

The iron you use must be properly calibrated prior to using it to shrink your fabric. You will want to calibrate and mark at least two temperature settings: 225 degrees F and 240 degrees F. Your iron should be of a

high enough quality to hold the desired temperatures within +/-10 degrees.

#### Calibrating Your Iron

Obtain an accurate thermometer with a stem that can be placed under your iron. The best thermometer is a glass-bulb type. As an alternative, use a candy or jelly thermometer available at hardware stores. If you elect to use one of these, check its accuracy by placing it in boiling water and ensuring that approximately 212 degrees F registers.

Purchase some silicone heatsink compound. Build a 1/2-inch-thick stack of dry paper towels. You will use this as a heat sink to place the iron on while calibrating it. Next, place a small amount of heat sink compound on the bulb of the thermometer and lay it in the middle of the paper towels. Place your iron on top of the thermometer that is on the paper towels. Turn the iron on, advance the heat control to the wool setting and watch the temperature rise. Let it stabilize and then vary the control to reach a temperature of 225 degrees.

Using a piece of masking tape applied over the temperature dial, place a mark at the 225-degree setting. Vary the temperature until you have the iron calibrated and marked for 225 degrees F and 240 degrees F.

(Continued on page 8)

Shrinking - continued from page 7

Turn the iron off and allow it to cool. Then thoroughly remove the silicone heat sink that will be on the bottom of the iron.

This process should be repeated each time you change the length of the extension cord you're using, if you drop the iron accidentally or when you start a new covering project. It is critical that the proper temperature is applied to the fabric.

You'll want to purchase a small heat-sealing iron in addition to your regular iron. This smaller iron will be used in some of the non load-carrying areas that are inaccessible with a larger iron. Only use this type of iron in areas where exact fabric tension is not critical. Removal of wrinkles and smoothing of tapes can be accomplished using this type of iron. Calibrate the smaller iron just as you do the larger iron.

You must allow the fabric cement to completely dry prior to beginning the shrinking process. Failure to do so will often result in the fabric being pulled loose from the structure.

After waiting for the cement to dry and having calibrated the iron, it's time to begin the fun. Watching the fabric pull up and smooth out on an aircraft surface is very rewarding. You will enjoy this part of the covering process.

If you have used a fabric envelope with sewn seams, you will want to shrink the area immediately along the seam first. Failure to do so will cause the seam to be crooked. As you begin the shrinking process, the fibers of the fabric will shrink uniformly and evenly. If you are doing a large surface, such as a wing, begin in the bay near the wing root. Shrink that at 240 and then do the bay at the wing tip. You can then work your way toward the middle of the wing. This will help prevent any warping of the airframe.

Let the iron glide over the surface; no pressure is necessary. Don't worry about leaving the iron in one place temporarily. It will not scorch the fabric nor will the fabric get any tighter. The amount of shrinkage is due totally to the temperature, not the pressure or time. Don't worry about removing all of the wrinkles on the first pass. They will come out with the higher temperature setting

you will use on the next pass.

Iron over the hard surfaces such as the leading edges. Realize these areas may act as a heat sink and require a little extra time to properly shrink. Be careful not to allow the tip of the iron to penetrate protrusions or rivets and cut the fabric. Also—and this is important— do not place the iron over cemented seams. A temperature of about 250 degrees will loosen fabric cement.

When you are shrinking fabric around a protrusion, such as a wing attach fitting, iron around them, and after you have shrunk to 240 degrees, you can cut the fabric above the fitting just enough to allow it to pop through. Make a small cut so the fabric does not pull too far away from the protrusion.

Shrinking the fabric is not tricky by any means. It is a fun step, but one that must be accomplished with care. >

# Flying Events

**August 12 -** CUFC annual fly-in/drive-in BBQ. Starts at 1:00pm at Dave Boulton's strip. Call Bernie to register 255-7419.

**August 12** - Pincher Creek, AB, COPA Flight 77 annual fly-in breakfast. For info call Tony 403-627-3006.

**August 18-19** - Lethbridge Airshow with the Snowbirds.

**September 15** - Rocky Mountain House annual fly-in breakfast, 8:00am to 11:30am. Info call Charlie 403-722-3205.

**September 9** - Fred Herzog Memorial fly-in breakfast, St. Albert, AB



Brad Lawrence and his Fisher Avenger at the Vulcan Fly-in. Brad is the flyingest guy around this summer. He has put over 60 hours on the Avenger since buying it in June.