



# Skywriter

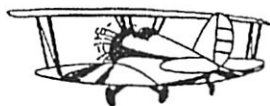


Monthly Newsletter of the Calgary Ultralight Flying Club

June 1995

## Off We Go ...

by Wayne Winters



It is really quite something when you think about how fortunate we are to have the opportunities we have for flight. Since the beginning of thinking man (maybe cave-man too) we have looked to the skies and wondered what it would be like to do as our feathered friends do and fly.

Watching some balloonists the other morning got me thinking how much I enjoy being in control of my destiny and not having to put down somewhere I would choose not to (unless the engine quits) and how nerve wracking it must be knowing that if the wind comes up you will need to brush your teeth and change your shorts after the landing. Well, maybe in our sport too!!

In my opinion, flying gliders and hang gliders is getting close to the fun stuff,

but still you are not able to do a leisurely "River Trip" on a calm, warm evening. In an enclosed cabin moving at 100 mph plus, you cannot smell the sap from the trees. Oh, ain't the open ultralight life grand!

### June - last meeting until Sep.

Don't forget that the June meeting will be the last one until we meet again on Wednesday, September 6th.

### Family Fun Fly

Be sure to check your social calendar and pencil-in June 17th for our annual Fun Fly. The day is geared around a family BBQ in the afternoon with flying fun and more food in the evening. If you want steak - bring it. The club will be providing hot dogs, hamburgers and pop at cost. So bring

a few green backs, but not many will be needed. You and your family are guaranteed a fantastic time!

### The May Meeting

We had a very informative meeting with Steve Rothfelds, the CBC Television weather man as our guest speaker. Steve is the only TV weather guy who is also a meteorologist. This entitles him to make his own weather forecasts and a whole bunch more money!

It was interesting to learn how automated Environment Canada has become. And how the computer readings are not as accurate as man-made ones, simply because the sun may be behind a small cloud at the time of the reading.

We gave Steve a CUFC hat and would like to once again thank him for his presentation. I have offered to get him up flying and with a little prodding I am sure I will.

We had an excellent door prize response again, and we thank you for your support.

After discussing the up coming Fun Fly with Harry Moxley (Buzz) and Ron Axelson, the organizers, we watched a video on the Lakeland Sun 'n Fun 1995 Airshow.

### Send In Your Articles

During the summer months we will continue to publish and mail your newsletter. Be sure to send our editor (Bob Kirkby) tid-bits that can be published and help keep everyone informed. We'll be seeing you at the Run Fly, the Fly Ins and in the air!

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# A Little Prop Wash

by Douglas J. Ward



The Canadian Postal Service brings a variety of things to my door. Sometimes there is a lot of that junk type mail which nobody, even the people that printed it, really expect you to read. But they still send it. Possibly hoping to capture some unsuspecting person who has a little too much cash in his/her pocket who is just looking for an opportunity and a place to spend it. Appears like Marcel Masse and his employees might be partners, perhaps unknowingly, in a Flim-Flamming business.

If you do get Flim-Flammed by one of these enticements, which appears to be just too good to be true, whose dubious advertising campaign was in fact lawfully delivered to your door by a Postal Delivery Person, it's entirely your own fault. Nobody forced you to indulge yourself in what is surely some sort of a devious effort to part you from your money without even thinking of giving you anything in return. Heh, this isn't to say that nobody hasn't ever Flim-Flammed me; at least not that I'd ever admit to.

Just to have the feeling that Transport Canada might be Flim-Flamming some of the Recreational Pilots in Canada these days. I'm not really sure, but I just have this feeling. The word "Flim-Flamm" in the Doug Ward dictionary of common sense is:

Being deceived or led on just enough to think that something good is going to happen. (N) being taken for a ride; (ProN) get ready cause something is gonna happen which you think might or should be good, but might not end up being so; (V) giving it to an alternate person(s); (ADJ) being gotten, being led down the proverbial garden path.

Reason for the above description - why did I just receive a March 1995 Update to the Hang Glider and Ultra-Light Aeroplane Manual from Transport Canada? Isn't the whole system of Rules in the midst of some major discussion right now. Why would anybody assume to print out, and then charge for, a new manual if the present Rules are under review?

I can carefully rationalize several distinct possible reasons for this happening:

1) Hopefully the reason. People at

Transport Canada are not communicating with each other. The left hand doesn't know what the right hand is doing. This had been part of the whole problem with Recreational Aviation across Canada in the past. I assumed, (boy, there's that word again) that this problem had been identified and had been dealt with by TC.

2) There has been and will be no real attempt by Transport Canada to make a solid effort to modify, (modify meaning making the Rules more realistic to the problems at hand right now and in the foreseeable future with this style of aircraft), the Ultralight Rules. It appears that there is a facade for change, but are there really going to be any changes? This will be something we will find out. When, we can't be sure.

3) Some sort of subversive effort to keep a large number of Transport Canada employees working for an extended period of time, during a time when Transport Canada appears to be diminishing its operations and staff. It keeps the literary staff working, as well as the mail room people. I haven't gone through the Updated Rule Book word for word, but I would imagine that there are a couple of word changes, just to make it an "Update".

4) Or am I seeing the whole thing through Rose Colored Glasses? I don't know. I just have a hard time accepting the fact that this update is published at a time when Transport Canada and what has appeared to be a large number of concerned Recreational Pilots in Canada, who are by all indications presently working on the modifications to the Official Recreational Aircraft Rules. Why doesn't this all fit into the picture properly?

Are there going to be any changes which will benefit the Ultralight pilots? With the publication of this New Update, has the seed of wonder been planted?

Are there any changes to be made which will bring the older rules, which really don't relate much to the newer "I" Registered aircraft? I really have to wonder.

Is Transport Canada telling us, without really telling us, that we can

continue to operate some of our Ultralights illegally. I don't know?

Are there going to be any changes?

Safe Flying!

## Classified

**Chinook** - single place, perfect entry level aircraft, 60 hours, 277 Rotax, \$3900.00. Ron Axelson 244-7005.

**Intercom** - 2 place Ultracom including 2 headsets, in good condition, \$400.00. Chris Kirkman 280-1843.

**Chinook** - 2 place, 1985, 38 hrs on rebuilt Rotax 447 & gear box, ASI, ALT, VSI, Tach, Extra Tanks, 6.50x8 wheels, \$5,000. Dave Dedul 403-823-6054.

**Airlight Model "A" Parasol** - Steel tube & rag, Rotax 503, Warp Drive, lots of instruments, 800 x 6 tires, strobe, CB & VHF hookups, folding Kolb wings, \$6,500. (Reduced). Jim Creasser 226-0180.

**Props** - 2 wood props: 64 x 32 and 64 x 34, \$200.00 for both. Damien Belanger 1-823-3027.

**1977 Honda 750 FourK** - Excellent condition, 4700 Mls, \$1200.00 firm. Doug Ward 282-0806.

**Lazair** - wind damaged, repairable, pioneer engines, \$500.00. Jim Creasser 226-0180.

**Hiperlite SNS-8** - 200 Hrs. TT, hydraulic brakes, ground adjustable prop, STOL, fun aircraft to fly, damaged - one wing tip and fabric damage, offers. Bob Campbell 934-3657.

**Chinook** - 2 place, Rotax 503, 110 hrs TT, electric start, cabin heat & choke, ASI, VSI, ALT, CHT, RPM, new tail wheel, wing light, antenna, hangered, very clean, well maintained, great performance, \$7700.00. Gerry Moore 403-270-0877.



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Skywriter is the official publication of the Calgary Ultralight Flying Club and is published 12 times per year. Opinions expressed by our writers are not necessarily those of the club. Articles and letters to the editor are very welcome from any readers. Address correspondence to: Bob Kirkby, RR 7, Calgary, AB T2P 2G7 or Fax to 403-291-1112.

Meetings of the Calgary Ultralight Flying Club are held the first Wednesday of every month at 7:30pm at

R.C.A.F. Association  
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Calgary, Alberta

# Around The Patch

by Stu Simpson



## Little Things

Talk to anyone who's ever built an airplane, or a boat, or a car, and they'll invariably tell you that the last ten percent of the project (the little things) takes ninety percent of the time.

Unless you talk to me. I'm pleased to report that the final stages of my HiMAX are moving along quite nicely, with only the occasional glitch thrown in for amusement.

correct spot, I simply drilled small pilot holes through to the wood, and then sunk screws in the holes.

I moved forward next, to the engine cowling. This is a fiberglass unit I purchased from TEAM. It comes as two pieces, an upper and lower half, and needs to be cut to fit the Rotax engine (the engine protrudes through the top). Here again the Dremel was indispensable, the small cutting wheels in particular.

I didn't have a plan or drawing to work from, so I had to wing it when cutting the cowl to shape. Starting with small cuts, I checked the fit and enlarged the openings as I went. I wound up having to cut the top cowl piece in two. This allows me to remove the entire cowling without taking pieces of the engine off.

Because I'm building the airplane to Amateur Built Category standards, I'm required to have a firewall separating the engine compartment from the rest of the plane. I made this from scraps of galvanized tin (which Brian Vasseur very conveniently had lying around). stainless steel is also acceptable though heavier and more expensive.

Since my engine compartment is more of a "box" than anything, I had to form a sheet metal box to fit it. I'd never bent anything more than tin-foil before, so I was unsure what the result would be. Let's just say it was marginal, but acceptable and safe (though I doubt I'll be building a metal airplane anytime soon).

Now I had to ensure that the basics necessary for the engine to run, such as a carburetor and exhaust system, would fit. The exhaust manifold cleared the cowling nicely, but I had to make a small notch in the left side of the outer engine bay to allow the carb float bowl to fit.

Once the carb was on, it's only natural that one's thoughts should wander to the throttle assembly, which mine did. My throttle arm is a bent piece of aluminum tubing pulling a cable. The throttle arm is mounted on a block of wood which also holds a metal strap. This strap firmly clamps the cable housing in place, allowing the cable to *(continued on page 4)*

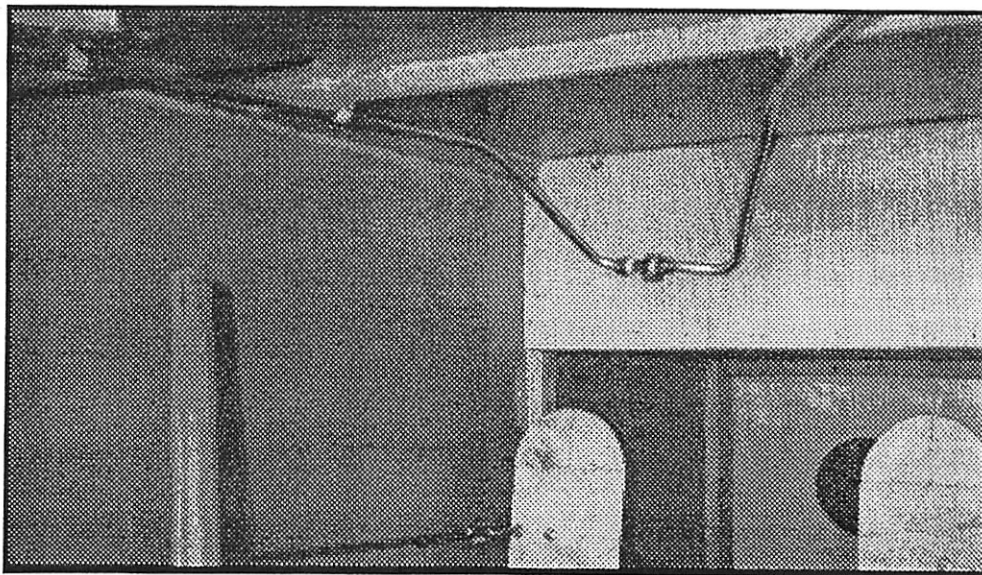


*Fuel lines run from wing roots ...*

I started the month installing the windows, which are Lexan. In the plans, the top of the cockpit is covered with 1.5mm plywood. I put Lexan there instead for added visibility and to collect a bit of sunshine during the winter.

I traced the front and rear windscreens from drawings the factory sent me, then I used a jig-saw to cut them out. The Lexan cuts very nicely if you use a metal cutting blade. Once they were cut out, they had to be trimmed. I used a rotary sanding drum on my Dremel tool for this job.

The windscreens were enormously difficult to attach because they resist bending so much. It took some creative clamping to hold things in place for the final fit. When I had them in the



*... beneath instrument panel to the fire wall.*



(Around - continued from page 4)

slide freely. The forward end of the cable attaches, of course, to the innards of the carb.

All going smoothly to this point, then I find myself in unfamiliar territory again. All fuel lines that run through the cockpit must be metal. I was able to acquire some very flexible aluminum tubing from a performance racing shop for a reasonable price. No problem so far, but how to put it all together? I admit it, all this stuff was new and somewhat intimidating.

It turns out, one answer is with AN fuel line fittings. These fittings, made of anodized aluminum, are quite expensive and require the use of a flaring tool (which widens the end of the tube to accept a compression sleeve, which all fits together with no leaks).

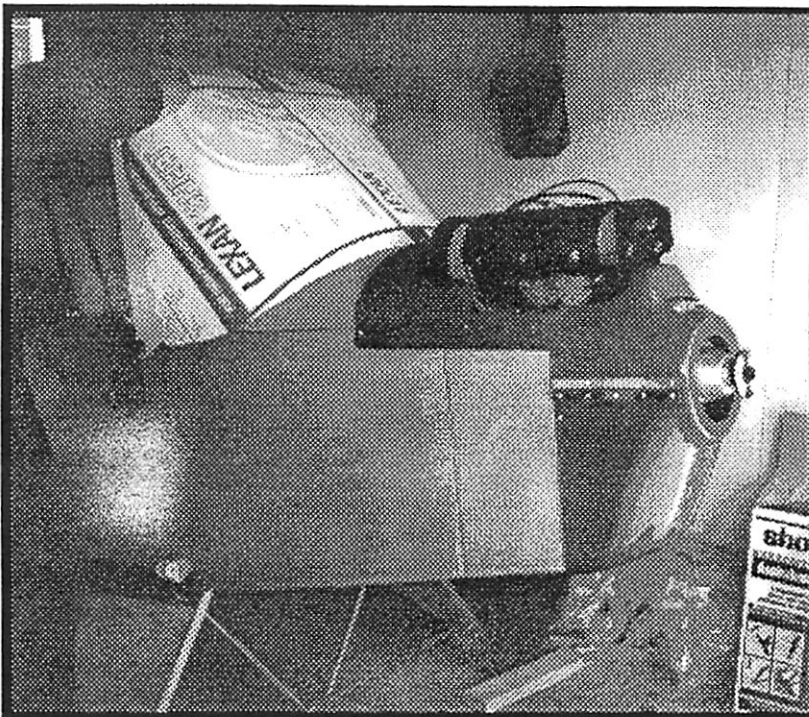
It's nearly impossible to get these fittings in Calgary, and as I said, they're quite pricey. I didn't feel like waiting a week and a half to get them from one of the mail order houses stateside. So I checked around and discovered that brass pipe (and tube) fittings are quite acceptable, and inexpensive, alternatives.

The brass fittings work on the same basic principle as the AN ones, but don't require a flaring tool. They are heavier than the aluminum, but I can comfortably afford the extra ounces. Or, more correctly, the HiMAX can.

I borrowed a tubing bender and tubing cutter from Bernie Kespe, and set to work slowly and carefully. This tubing bends like butter. As such, it's easy to shape around large radiuses. But that also means it kinks easily, thus a bender is required on smaller radiuses.

I was pleasantly surprised at how easily my fuel system went together. I have lines running from the fuel drain locations in the wing roots forward to the front cabin post. They curve downward, and then forward again to run beneath the instrument panel and end in a "Tee" fitting before proceeding through the firewall. There are shut off valves in each line, and just for safety, I sealed each fitting with a fuel resistant compound.

My instruments will be the last items to go in, so right now I'm concentrating on preparations for covering. I've dismantled and varnished the tail feathers, and should have the wings varnished when you read this.




Fiberglass cowling is attached with screws.

A hint on varnishing. I heard rave reviews on how foam brushes give such a wonderful finish with polyurethanes. And for all I know, it may be true. But I found the foam brushes that I used couldn't hold up to the sharp edges found on the tail. They also don't distribute the varnish as evenly as a brush does, nor are they able to get into small corners. So I'm sticking with small brushes from here.

The most intimidating part of building this plane is just over the hill now. I've heard the entire gamut of covering

stories. Those of the nightmare variety, all the way to "the most fun of the whole project". I don't know who to believe, so I guess I'll just have to wade into it and find out for myself.

I'll let you know the story next month.



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## Life's Fabric

by Wayne Winters

The fabric on your airplane may look very good but could be ready to give you the "big" let down. Have you tested it lately?

This spring a young pilot approached me and asked if I would mind him setting up his ultralight airplane at our airport, situated just outside of Calgary. He had just bought it in B.C. and was hauling it to his home in Manitoba. He thought it might be fun to fly it around Calgary a bit while en-route.

The aircraft is a Quicksilver MX and since I have one just like it in the quonset, that has never been flown, I was quite anxious to see his and watch it fly. The day following our conversation I glanced out and saw him flying it in a very erratic manner. Steep climbs, wing overs, 90 degree descents with pull outs just above the ground, etc. I thought that I should go out and ask him to go elsewhere to fly like that, but soon he stopped.

The next day he was back at it again as I observed him from my office window. After watching him put his little bird through its paces I decided that I had better get the death defying performance on video to show the fellows at the flying club so when they read about him in the accident reports they could at least look at the footage and draw conclusions why it happened. By the time I got my camera ready the stunting had stopped and he then came in and landed. After taxiing to a grass area in front of one of the hangers, he got out and relaxed with four friends on the grass, absorbing some of the spring sunshine.

I decided that I would go out and ask him as politely as I could, to take his stunt flying elsewhere because we did not want the media swarming around when he crashed. As I approached the group with my video camera strapped around my neck, we exchanged pleasantries and chatted for a few minutes. Looking at the pilot I then said, "you are one of the bravest pilots that I have ever seen - doing all those fancy maneuvers, not only in an ultralight, but so close to the ground." He looked a little puzzled. I continued, as I grasped my video camera, "it would be good to have some footage to remember you by and see how you handled the airplane!" He grinned, shook his head and mumbled something. We then proceeded to discuss some of his maneuvers and he, as well as the others, agreed that it would be best to go away from the airport to fly like he was. As we

continued chatting he and his friends lay on the grass while I had a good look at his airplane. I could see several things that made me uncomfortable, but should not affect the performance of the machine, for a while. I didn't bother mentioning them because nobody likes to have their machine picked apart. I did comment on the fabric though. It looked good but was faded badly and had a couple of duct tape repairs. He said that it had been sitting outside for a couple of years but that it was in good condition.

My continued inspection showed that the sun had not been kind to the fabric and the front of the "slide-in-ribs" was poking through the reinforced stitched areas at almost all rib stations. I asked him if he had ever tested the fabric and he said, "no, how do you do that?" Then added, "the fellow I bought it from works on airplanes and even stated on the Bill of Sale that in his opinion the aircraft is completely air worthy." (The new owner was led to believe that the seller was an AME.) I suggested a simple method that I use to test the fabric. Simply make a fist, raise the middle knuckle and give the fabric a "punch". He told me to do it, but I declined, urging that since it was his plane he should do it. He persisted that I do the test so I wound up and gave the outer starboard wing panel a punch.

Keeping in mind that this model is a single surface wing, I expected some resistance, but to my and his surprise my fist went right through. I then took my finger and gave it a gentle push against the next panel and with a dull finer nail, with almost no pressure it pushed through and made a tear about 3 inches long. The surprised owner jumped up, came over, and proceeded to push his finger through the fabric at different wing locations. By now the whole group was on their

feet, with chins close to the ground, as their mouths gaped open in amazement. Me too! I could not believe that the fabric held out, especially with the stresses he was placing on it. I asked him how high he had flown this airplane and he responded, "a couple thousand feet." By now he was a little white in the face and reflecting on the joy of simply being alive. We continued walking around the aircraft and could not find a piece of fabric, even on the rudder, that was any stronger. If any one panel had chosen to blow out (there were stress lines on some) the others would have gone resulting in the "big final good bye".

After coming close to witnessing a disaster, it took a couple of days for my nerves to settle down. The maneuvers that he was doing a few feet from the ground were one that I caution my students in my flying school to never do unless they have at least a couple of thousand feet altitude, and then never to do them in an ultralight because they are not built for aerobatics and the mistakes that will be made in the process of doing them.

I would urge anyone with an aircraft sitting outside to frequently "punch" the fabric and not take someone else's word for the fabric's integrity. My understanding from some of the folks at Transport is that even if the seller of an airplane was an AME he would not be in trouble for saying that an un-airworthy craft is air worthy because his license only applies to certified aircraft, not ultralights. The example given me was that if an AME certified a Model "T" as air worthy it would not be exposing his license.

I would not urge you to go around airfields "punching" other people's airplanes, but encourage them to do it on their own. You could save a friend's life!

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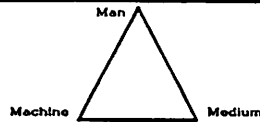
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## Safety Corner

by Paul Hemingson



### Knowing What You Don't Know

Someone once said that wisdom was a combination of humility and wonder. I think that is true, especially when I find myself pondering the natural world. When you take the time to examine things in nature you will eventually be struck with the incredible beauty, harmony and ingenuity that makes up the natural world. How everything seems to have a purpose, and those things which do not appear to have a purpose are merely failings in our own understanding.

I think all pilots are pleasantly surprised at the added dimension or perspective that flight has given them. A new window on the world and a new window on themselves.

For me, the greatest aviation wisdom was to realize that my safety depended on "knowing what I do not know". To realize that well founded assumptions are only assumptions. To carry in my mind the parallel thoughts that some assumptions have to be made, but not to let these crystallize in my mind as facts. Not an easy thing to do. But eventually we all come to realize that only fools are certain of everything. To become aware of our own ignorances and weaknesses is one of the keys to safe piloting. This basically translates into knowing ourselves - how to react to given situations - how we respond to solving problems and making decisions. How we handle the information we are given through our

senses.

One of the smoothest pilots I know is good because he makes everything look easy. Anyone who makes something requiring hand-eye coordination look easy is good. For example, in our everyday world you can observe a backhoe operator, a crane operator, a skilled mechanic or carpenter, or any other skilled craftsman. Watch the economy of motion, the efficiency of his task, the instinctive feel that he has for the material that he is working with, the ease with which he treats his tools. All these are sure signals that he is good. But no craftsman attains that level without an apprentice period. For my smooth flying friend, I know it took years of experience to master the skill of flying to the point where he makes almost any flight maneuver look easy.

He has learned not only how to fly the plane, but also how to keep ahead of the plane in his mind. The secret to his smoothness (and safety) is planning ahead, and tempering this with the notion that assumptions are only that, not facts. He knows what he knows, but more importantly he knows what he does not know and plans accordingly. He knows his own weakness's and guards against them. He does not know when his engine might quit, but always flies as if it could quit at anytime. He knows the weather around him, but does not assume it is the same everywhere.

## Coming Events

**June 3** - Linden Fly-in breakfast, 7:30 to 9:45 am. For info contact Wayne Winters 936-5767.

**June 3-4** - Okotoks Aviation days, Okotoks airport, 9 am to 5 pm. For info call 938-5252.

**June 11** - Annual Hinton Fly-in Breakfast and Airshow, 9:00 to 11:30, Hinton, AB. For info call Loren Lewis at 403-865-7440.

**June 11** - Innisfail Flying Club's 34th Annual Fly-in Breakfast, 7:00 to 11:00. For info call Eldon Walter at 403-343-1709.

**June 17** - CUFC Family Fun Fly at Indus Airport, afternoon and evening. Flying competitions and BBQ. For info call Ron Axelson 403-244-7005.

**June 18** - Highriver Airport fly-in breakfast, 8:00 am to 12:00 noon. For info call 403-652-3444

**July 16** - Vulcan Flying Club Breakfast, Vulcan, AB, 8:00 to 11:00. For info call Glenn at 403-485-2635.

**July 22** - Kirkby's Annual Fly-in Breakfast, Kirkby Field, 8:30 to 12:00. For info call Bob Kirkby at 403-569-9541.

**July 26 - Aug 2** - Oshkosh Annual EAA Convention, Oshkosh, WI. For info call 414-426-4800.

**August 5-6** - Red Deer Air Show, Red Deer Industrial Airport.

**August 11-13** - Abbotsford International Airshow, Abbotsford, BC. For info call 604-328-JETS.

**August 13** - Wetaskawin Flying Club Annual Fly-in Pancake Breakfast, 8:00 to 11:00, Wetaskawin airport. For info call Jim Robson at 403-582-2558.

**August 19 & 20** - Lethbridge Chrysler International Airshow, Lethbridge, AB. For info call 403-380-4245.



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## Shop Tips

by Brian Vasseur

I've decided that the reason your first airplane takes so long to build is because you usually end up building two airplanes. I'm about half done my miniMax and I can't believe how many times I've redone a piece because I'm not happy with it. Or how often I've had to go back and scrape out glue where another piece has to go in. And sometimes I stand and look at the plans for hours on end because they just don't make sense (to me, anyway).

So I've decided to offer all the little shortcuts and other tips I've learned thus far. It'd be nice if this kind of trend caught on and we could each take turns submitting articles on the shortcuts we've learned.

First, I'd like to start in the workshop and let you in on a few things that simplified things for me.

For instance, to make short work of leveling your workbench, get some threaded inserts that accept a bolt (they're readily available at hardware stores). Simply drill a hole into the bottom of each bench leg, hammer in the insert and screw a carriage bolt in half way. Now, when leveling the table, use a wrench to thread the bolt in or out (i.e. up or down) as your level demands.

Paint the surface of the bench flat white. A cheap hardware store primer will work fine. The light color helps to make the best use of the available light. And any glue that gets on the bench shows up as a glossy glob and is easily found and scraped off.

The miniMax plans call for the builder to draw full size drawings and build the parts to fit the drawing. Rather than trace full size templates directly onto my bench, I bought a roll of 4 foot wide paper and drew the templates on it. I then covered the paper with a roll of light clear poly and built the different sections directly over top of the drawings.

A two-bulb, 4 foot, fluorescent light is adequate for a 4' x 8' area of your work bench. But my bench is 4' x 16' and two sets of lights work fine. If you have a separate tool bench put in an additional light.

Rather than use the main workbench for all your tools, a smaller bench for a vice, drill press and band saw is a good idea. I acquired an old solid wood closet door for no charge from a house renovation. It's perfectly flat and solid

enough to allow me to bolt down all my tools.

Never pay full retail price for clamps. Since I started collecting clamps a year ago, not a month has passed that Canadian Tire or another hardware store hasn't had a half price sale. So far I've collected most of them 4 at a time and never paid more than half price for any of them.

Heater hose and flexible fuel line make handy flexible couplers for power tools. I have a drill powered band saw that uses an old dryer motor for power, with heater hose and hose clamps to couple it up. It looks really ugly, but at \$40 for the whole works I figure it's already paid for.

Elastic bands are great when you need to clamp something but don't have the space for a clamp. Elastics can be tied together and they're easily cut with scissors. I usually buy a box of #64 size from a stationary store.

Staples are a lot handier than nails for holding plywood to wood structures. Pulling these staples, however, is an exercise in futility. So I string twine under all my staples as I put them in. When the glue's dry I simply pull up the twine and at least one end of the staple comes out. Needle nose pliers quickly complete the job. Keep your eyes closed when you're doing this because staples fly everywhere.

Applying glue in tight areas is easily done with a small paintbrush. Hardware stores usually have Acid Brushes in the plumbing section for \$.25 ea. They can only be used once, but if you're really cheap you can take the bristles out, turn them around and use the other end for your next job.

I'm using a glue called Timber-Tlx, which dries to the consistency of a very hard, rough, plastic. To clean hardened Timber-Tlx out of a corner requires an awful lot of scraping and grinding. But if you wait 4 hours after gluing, the glue will be fairly well setup and no longer sticky. It'll still be soft enough that it's easily scraped off with a small scrap of wood or metal.

If you have a bench grinder, you now have a rotary sander as well. It's easy to attach a sanding disk. I made a 10" circle from 1/4" plywood and use rubber cement to glue 100 grit Aluminum oxide paper on one side and 320 grit on the other. Fantastic for cleaning up aluminum. When the sandpaper wears out, I just epoxy another sheet over top the old one and trim it with a razor knife.

Here's the one that may come in handiest for those of you working in your basement. When your wife asks how you're going to remove the plane the basement, and you tell her through a hole in the bathroom wall at the top of the stairs...don't stop there. Tell her that when the airplane is out you'll replace the hole with a nice glass-block feature window. You've not only covered yourself for the hole, but you gain additional points by doing home renovations at the same time without being told 9 times.

One other thing. Don't refer to your airplane as "The other woman".



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# "FUN FLY 95"

## June 17th - Indus/Winter Airpark

The object of "Fun Fly" is exactly that, have fun flying by adding a little competition and a lot of safety. Four events will be organized for your enjoyment and should entertain the spectator. The first rule is safety and any decision you make in competition must put safety first. If you errrr ..... errrr on the side of safety.

The following competition events are suggested, but we are open for other suggestions

### Shortest Take-off Roll

Simple enough eh! The pilot pulls his aircraft onto the runway and puts the main gear on a base line (must come to full stop). At the point where the mains lift off the ground, measured from the base line will be deemed to be his distance. The first aircraft will establish a wide circuit outside the "Indus" control zone and each subsequent competitor will join the established circuit and follow at approx. 1/4 mile separation. *Remember, this is a take-off competition, not a climb out contest!*

### Flour Bomb Drop

In this contest, each competitor will have the opportunity to fly two inner circuits and drop a flour bomb each time on a well marked target circle. Obviously, the closest to the middle of the circle wins.

*As with all these events, it is very important that aircraft maintain proper separation. This is for your safety and will allow volunteers to take measurements. A signal lamp is being considered.*

### Balloon Pop

After completion of the flour drop, the participating aircraft should still be within the inner circuit. The pilot will approach the area (probably the runway) a third time at a specified altitude and passing over a fixed point, a helium balloon will be released some distance down the runway. The objective is to pop the ballon; *pushers are not allowed to fly in reverse.*

*Important; this event needs your decision making to be driven by safety .... no sharp turns, pull ups or dives!!! Anyone pushing the envelope will be disqualified.*

### Spot Landing

The easiest of all? .... Maybe. After the balloon pop the pilot will land and try to touch the mains on a established line (probably the same one for take-off roll). If a major hop ensues, its the second touch down that counts!!

Prizes will be awarded for all winners

Event Organizers:

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