



Skywriter



Monthly Newsletter of the Calgary Ultralight Flying Club

November 1998

Across The Wing

by Wilf Stark

Although I received my initial UL training at Indus, I don't get down there as often as I'd like. I had occasion to be there twice this month, and some noticeable changes struck me: - Chaos is getting old! He eyed my flank with interest, but didn't seem to have the ambition to do much about it. - Some of our members have put up rather impressive hangars! A few are even large enough to socialize in, when the winds act contrary. - The Airplanes stored in these new buildings seem to have values ranging from 30K on up. It's a clear sign

that our sport has matured and become safer and more reliable, making these larger investments a less risky proposition.

Back in '92 when I was a student, Larry Motyer's pretty Merlin was one of my favourite airplanes; now I can shift my interest to his recently completed and superb Murphy Rebel, whose Rotax 912 is worth more than the entire Merlin was. - Musical chairs has been given a whole new meaning, when I look at how some planes are changing hands among our members at Indus. I hope some of you will share how you're enjoying your newly acquired real estate, at our next few meetings.

No fear! One members' hand-me-down becomes a newer member's pride-and-joy.

- The most obvious change however, is the tremendous amount of weekday activity, on favourable-wind days! I understand why Jack Barlass would choose to be down there so often - it is after all, his new job, but the rest of you who aren't retired, and have non-aviation jobs - do your wives and bosses know that you come out for some serious play during the week? Ahh, these wonderful "and what are you doing for your inner child?" nineties! - The one over-riding observation during these two visits, is the obvious camaraderie and support that you folks at Indus seem to provide for each other! It is to be envied.

The Directors will be getting together prior to our November meeting. There are some issues that need to be discussed, and presented to the membership. We need to do an evaluation of whether we are meeting the expectations of our members, and following the objectives set out originally, when this club was formed. Objectives change with time; it's time we looked and checked whether we're in sync. or not. We will also be supplying everyone at the meeting with a copy of the original objectives (by-laws of the CUFC). I expect there will be some lively discussion. I hope that as many of you as possible will voice your views on whether our current direction and activity streams are meeting your expectations.

See 'ya at the 'meetin !



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"Your airplane deserves the best!"

"Forman's Folly"

by Carl Forman

Aviation has been in my blood as long as I can remember. I had my first plane ride when I was four years old. I remember being awestruck at a local air show as P51 Mustangs came swooping in at high speed and climbed vertically out of sight. I got my private pilot license when I was seventeen and my commercial rating by nineteen. In grade twelve, I tried to muster up support to build an airplane but this project was not in the cards at that time. I continued to fly over the years, never forgetting my ambition to build a plane.

After considerable trepidation about such a daunting task, I started to build in February of 1996. My TEAM MiniMax was finished two and a half years later. The building process was a joy and the advice I received from Calgary Ultralight Flying Club members, TEAM and others was important in bringing the project to a successful conclusion. (Thanks again)

With borrowed truck and trailer, "Forman's Folly" was moved to Kirkby field during the first weekend in September. Assembly of the wings proved a little troublesome due to tight tolerances, but the retaining pins were finally coaxed into position and the fuel lines hooked up. Engine break-in occurred on the September 5th and fine-tuning of the Ivo prop on the sixth. I also did some taxi testing and was able to get the tail off the ground and keep everything reasonably straight. Further taxi tests on September 10th indicated that "Folly" was ready to fly.

On the morning of the eleventh, I took a check ride with Wayne Winters and became confident that I could handle the Minimax. Equally important, Wayne came to the same conclusion. I went to the hangar and pulled "Folly" from the hangar and proceeded to do my walk-around inspection more thoroughly than I have ever done before. When that was done, I did it again. My wife appeared, complete with video and still cameras and, just in case, a cell-phone. By this time, westerly

winds had increased to fifteen miles per hour and were straight down the runway. We had a little trouble getting the engine started but eventually, that was overcome. I climbed aboard. I was very careful to review my pre takeoff checklist twice before taxiing. Then I gave a thumbs up to the official photographer and commenced my taxi to the runway.

As the plane was pointed down the runway, I went over the checklist two more times.

I sat there for a minute and tried to think what I had forgotten. This all seemed too easy and I couldn't believe that two and a half years building had come to this moment. I finally concluded that I was just procrastinating and that it was time to get on with it. I was still calm at this point. My last checklist item was, "keep it straight and down the middle, watch the airspeed and, if there is a problem, land straight ahead, keeping airspeed up".

I commenced my takeoff roll, taxiing about five miles per hour into the headwind. My heart was racing a little at this point and calm was no longer an accurate description of my mind. I eased the throttle forward and to my surprise, the plane was already six feet in the air before I reached full throttle. I instinctively lowered the nose a little and just concentrated on keeping the wings level and the nose angle reasonable. "Folly" was climbing like a homesick angel. After about two hundred feet elevation, it occurred to me that I should, perhaps, look at the airspeed indicator. I was doing forty-five miles per hour and I thought fifty would be more prudent, so I lowered the nose a tad. I looked into the field ahead and was happy to see that it was ok for a forced landing. I then commenced a gentle turn, got up to one thousand feet above ground level and started to calm down a little. I can only remember two thoughts in the three minutes of level flight. The plane was so stable, the only difference between sitting in it in the garage and flying it was the view and noise. Strangely enough, the other thought that went through my head was, that if I died on this flight, at least I died doing something I wanted to do.

Now it was time to commence the long

landing approach. A couple of gentle left turns gave me a long straight in for runway two seven. I throttled back to five thousand RPM but found my decent too slow so I tried four thousand. This proved about right. I made sure I maintained fifty five miles per hour and cleared the fence about twenty feet up. I kept the nose downhill until I was close to the ground, flew level, cut the throttle and braced myself. To my surprise, I stalled her in from a couple of feet and, with the use of brakes, was stopped in what seemed to be about fifty feet. Not bad for an amateur. I stopped for a moment, everything seemed OK so I taxied in, let the engine cool a bit and shut her down.

It was only after the engine stopped that the importance of this moment to me sunk in. A thirty year dream and two and a half year building project had come to fruition.

Skywriter

Skywriter is the official newsletter of the Calgary Ultralight Flying Club and is published 12 times per year. Articles and letters are very welcome and should be addressed to Bob Kirkby, Bernie Kespe or Wilf Stark.

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Meetings of the Calgary Ultralight Flying Club are held on the second Thursday of every month, except July and August, at 7:30 pm, at the Northeast Armoury, 1227 - 38 Avenue NE.

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Fairings, Fittings and Air Scoops

compiled by Bernie Kespe

This month's edition of "Kit Tips" concludes with a few more methods of forming fairings, cowl bumps and air scoops that you can make at home with little effort and ingenuity. As was mentioned in previous issues, all parts can be made with materials purchased at your local hardware store.

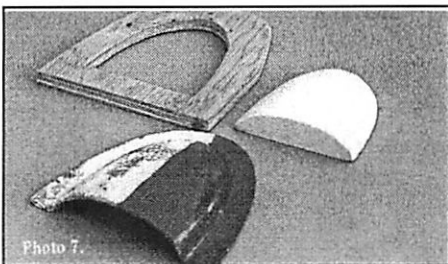
Duco Cement Bumps

Duco cement is the old nitrate based cement (dope) some restorers use on cotton and linen recovering jobs. I waxed up the papier-mâché form and made a shell of thin, flat crepe cloth and diluted Duco cement. Because crepe cloth is thinner than organdy, it took more layers to build it up to 0.040-inches thick.

Dilute the Duco cement with lacquer thinner until it flows well. Mix just a couple ounces of this "Duco dope" because it dries right now. I used 3/4 of a tube to make this 6 x 1 x 1-1/4 -inch bump. I like this combination because it dries so quickly and you can remove it from the form in an hour. Because it shrinks as it dries, make sure you have at least 4 degrees of draft angle or you may have trouble getting it off the form.

Cardboard Scoops

I used a piece of 0.052-inch-thick, gray cardboard off the back of a cheap notepad to make this scoop. I used the same form

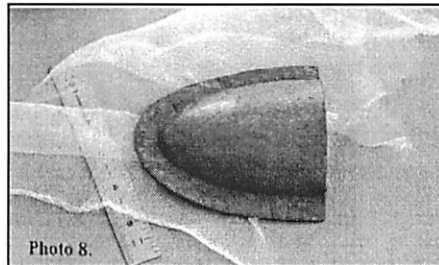


A wood form and pressure plate are all that was used to make the air scoop from a piece of cardboard off the back of a notepad.

and pressure plate method I did with the acrylics bump, only this time I didn't bother to fix the form to a base board (Photo 7).

I cut the cardboard about an inch larger around than the form and soaked it overnight in a half-and-half solution of water and ammonia. When it was thoroughly limp, I pressed the cardboard over the form with the pressure plate and clamped the works to another scrap of plywood. I set it out in the sun and, in a couple of hours, it was stiff enough to trim the flange down to 3/8 inch.

When it was thoroughly dry, I put a couple coats of varnish on each side and sanded them smooth. Photo 8 shows the varnished scoop with a piece of the light, filmy fabric



The cardboard scoop has a piece of crepe fabric from a lady's scarf varnished over it to increase its strength.

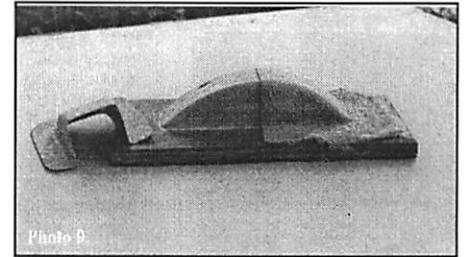
I used to make the scoop tear-resistant. It was the only thing I found that was flexible enough to use in one piece—I found it in the women's scarf section at the local Walmart store.

I laid up two pieces of this fabric on each side and used varnish to bond it to the scoop. I clamped the scoop to a board with the waxed wood form used to hold the varnished fabric in place, leaving about an inch of fabric overhanging.

When everything was dry, I sanded off the overhang and gave it the spackle and varnish treatment. I'm enthusiastic about the wet cardboard method. After making the scoop for, this article, I picked up some 0.030 inch hard-cardboard gasket at the local auto supply store and was favorably impressed by its flexibility when wet and its toughness when dry. Cardboard has definite possibilities!

Two Scoops for the Price of One

This idea is for the builder who wants to make a bunch of scoops. It's easier to drape material over the entire form shown in Photo 9 and cut the finished shell into two scoops than to fuss with forming a



You can make two scoops from a single form by simply cutting the finished shape in half and sanding the edges.

smooth, open end on a single scoop. I used eight plies of the scarf fabric bonded with Elmer's glue to produce a 0.025 inch wall. It's fairly flexible, but very tough. The water in Elmer's glue softens some fabrics that varnish and Duco dope don't soften. Paper towel and scarf fabric didn't cooperate when soaked in varnish, but they laid right down with the Elmer's. If you insist on making only one scoop, make the form 1/2 inch longer than necessary and trim off the rough end.

Attaching Scoops and Bumps

I like to attach my scoops and bumps as shown in Figure 1 if possible. It makes for

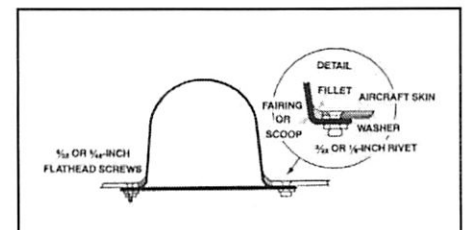


Figure 1. The author's preferred method of attaching a fairing or scoop to the skin of an aircraft.

a much neater installation. Cut the hole in the aircraft about 1/8 inch larger all around and fill the groove with a smooth fillet of Duco cement mixed with talcum powder.

(Continued on page 4)

Fairings - continued from page 3

A control fairing is just an air scoop facing backwards. These often have to be cemented onto unsupported fabric using a flexible glue such as fabric or contact cement. If that's the case, keep the fairing flexible by using flexible materials or by making the walls thin, which allows it to flex with the fabric on which it's mounted so it doesn't crack the paint around it or break right off the surface.

Plaster of Paris Molds

I know there's a builder out there who wants to make bumps and scoops by the dozen. For that reason, I've described a way to make a plaster mold from your bump or scoop (Figure 2). The mold gives you a smooth outer surface, and since most of the techniques I've described shrink a bit as they dry, the scoop will automatically pop itself free of the mold as it dries.

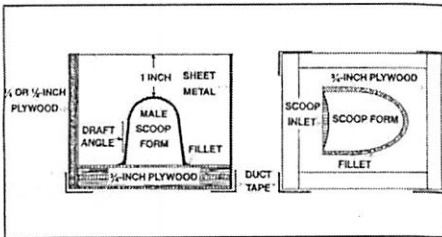
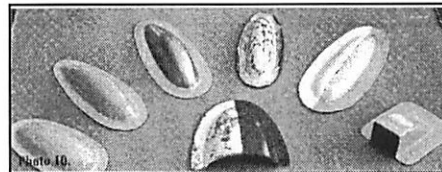


Figure 2. Casting box for creating plaster of paris air scoop molds. The front of the inlet should be slanted back a few degrees to create a draft angle.

The walls can be made from just about any rigid material, from linoleum to Masonite. Tape the four wall sections around the base of the form and ensure that any cracks or gaps are covered, then apply a couple coats of liquid soap to the form and inside walls of the mold. Mix the plaster of paris according to directions. If you don't make enough to fill the mold on the first pour, don't worry, plaster of paris bonds to itself very well. Just whip up another batch and fill the mold to the top. Tap it with your fingers for a few minutes to get the air bubbles out of the plaster, then let it sit for an hour. After removing the side walls, give it a few more hours to harden, then remove the form from it.

When the mold is completely dry, brush on two coats of half-varnish and half-thinner followed by a final coat of undiluted, straight varnish. When that's dry, put three good coats of paste wax on it and it's ready for laying up.



Surrounding the cardboard scoop in the center are fairings made of (from left) organdy fabric and varnish, papier-mache, acrylic, Duco cement and crepe paper, and aluminum, plus an example of a "two-for-one" scoop.

As you can see from my humble experiments (Photo 10), there are a lot of ways to make your own fairings, fittings and air scoops right there in your own workshop.

Classified Ads

Mini-Max - Rotax 447, GSC Ground adjustable prop, Full panel, always hangered, only 114 hours since new. This great flying, well known little airplane can be seen at Transport Canada's photo album at: www.tc.gc.ca/aviation/GENERAL/RECAVI/Pictures.htm Dale 293-3826, e-mail: dacl@cybersurf.net (10/98)

Kitplanes Magazines - last 3-4 years - free for the asking. Gerry MacDonald 275-6880 (6/98)

Chinook 2-place - Rotax 503, dual carbs, B-box, 127 hrs., 2 props, Yamaha golf cart hubs, 8.50x8 tires, pneumatic tail wheel, alt, tach, dual EGT, VSI, new sails on elevator and rudder, large wing tanks, always hangered, \$6950. Dave Dedul 403-823-6054. (6/98)

Props - 3-blade GSC fixed pitch for 277 pusher (R.H.) New 4-blade GSC Fixed pitch for 447 pusher (R.H.) Used. 10 Warp blades (R.H.) to make 72' Prop (you supply hub) new with nickel leading edge. Jim Creasser 226-0180. (4/98)

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Indus Goes Hollywood

by Dan Mitchell

One hour of flying, four hours of debriefing, hanger talk and just "plane" socializing, and it was finally time to go home. It was Sunday, September 6 and the next day was the Labour Day holiday. I had booked one of Wayne Winter's EZ-Flyers from Blue Yonder Aviation for bright and early the next morning. As I prepared to leave for home, I thanked Wayne for the great flight that day and told him I'd see him in the morning.

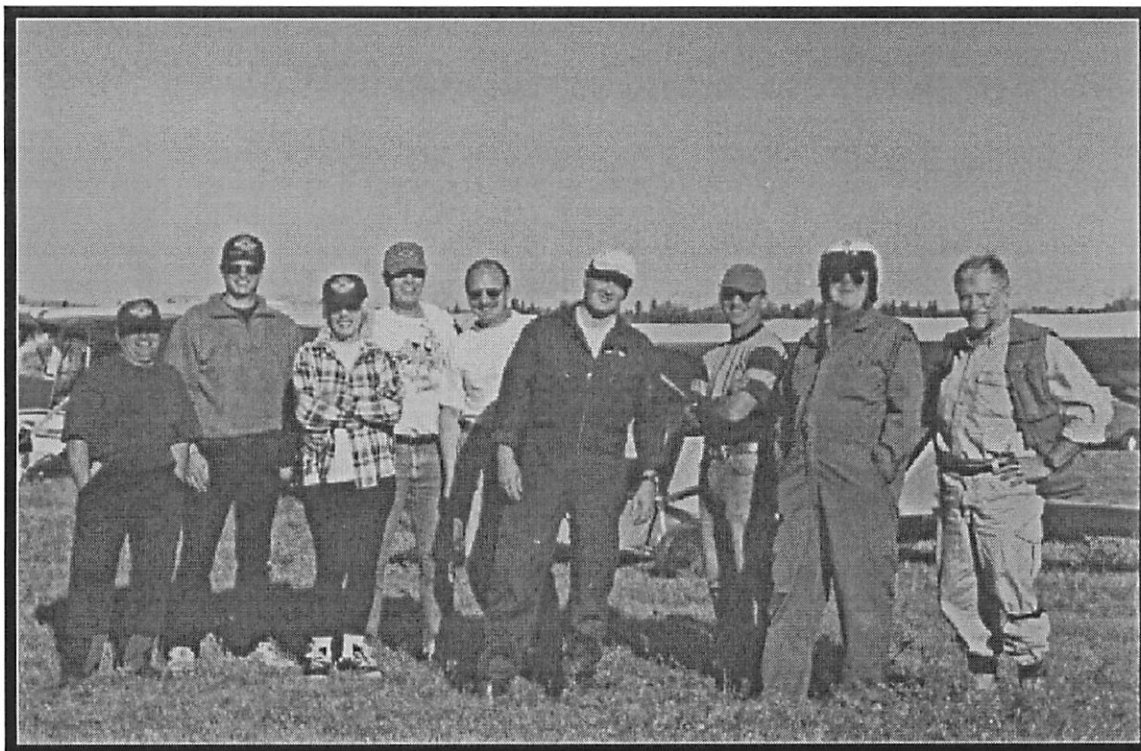
That was then Wayne told me about the "big plan". Apparently, Arctic Jungle Films, a film company out of Toronto, who were working near Pincher Creek, were going to be in Indus the next day. They were making a television series for the Outdoor Life Network, and were interested in filming a group of ultralight aircraft flying over the Alberta foothills. The more ultralights, the better.

Wayne asked if I would like to join the group for the flight. They planned to go to the glider strip at Qu Nimm near Black Diamond, and then on to Priddis? I thought long and hard about it, for almost half a second. No thanks. I think I'll stay home and mow the lawn or paint the fence. Yeah, right! Count me in!

I was up early Sunday morning and out to the airfield by 6:30 for a 7:00 AM departure. It was a great morning. The temperature was 16 degrees, the air was calm and the sky was clear. The forecast

was for a gorgeous summer day with a high in the low 30's.

A total of twelve planes gathered at Indus Winters Aire-Park to make the trip. Six open-cockpit ultralights including three E-Z Flyers and three Beavers, and six enclosed aircraft including one Chinook, a High Max, a Mini Max, a Rans Coyote, a Super Koala and a Husky Norseman. Ten planes from Indus and two from Kirkby's field to the north. Initially we were to take off around seven o'clock to avoid much of the rough air that was expected as thermals



Group photo at Black Diamond (from left): Fred Beck, Dan Mitchell, Elinore Rogers, Don Rogers, Wilf Stark, Stu Simpson, Dale Robinson, Jack Barlass and Gordon Tebbutt. Not shown: Fred Pentelski, Wayne Winters, Winston Brown and Bob Cameron (photographer).

developed later in the morning. But, due to logistical and technical delays, we didn't get off the ground until after nine.

Coordinating twelve pilots, the preparation of twelve aircraft, a television film crew and a support vehicle / fuel truck, proved to be a challenging task. Television cameras and recording equipment were clamped, strapped, taped and wired to Wayne's E-Z Flyer. The aircraft were fueled up and prepared for the flight. Pilots received their instructions and the fuel truck driver was given directions to the glider strip at

Black Diamond.

The plan was for us all to fly southwest towards the foothills. Wayne would fly around, over, under and along side us, getting the planes and scenery on film. He took off first and got in position over the Indus airfield to film the rest of the aircraft as we took off.

Those of us flying the five slower, open-cockpit aircraft lined up one behind the other on the taxiway at the north end of Runway 16. One after the other, we

took off, climbed to a circuit altitude of 3800' and turned west. We formed up into a "V" formation over the open fields west of the airfield. Jack Barlass took point position with myself and Winston Brown on his right. Bob Cameron and Gordon Tebbutt formed up off Jack's left wing.

A slow 180 degree turn to the left brought us back on a heading for Indus where the six faster planes and the camera plane were up and heading toward us. As the two groups converged, Jack signaled a *(continued on page 6)*

right turn and brought our little formation around and headed for Black Diamond.

We stayed in a tight group as we crossed the Bow River and Highway 2 and headed for Okotoks. Wayne stayed with the five slower planes as the faster group passed us to the north. We flew along maintaining a nice even formation as he made several passes around our formation from many different angles. Jack then cut back on the throttle and we followed him as he descended for some low level flying.

Wayne stayed with us like a fly on fly paper. Concentrating on flying in formation required all of my attention as we cruised down the valleys and up over the hill tops. Needless to say, I didn't do much sight-seeing on our way to Qu Nimm, but it was an incredible flight.

As we began to approach the glider strip at Black Diamond we climbed back up to circuit altitude and crossed the middle of the east-west runway from the north. I could see a few of the faster planes were already down but the circuit was still quite busy. Gradually breaking formation, we merged with the other traffic in the circuit. One after the other all twelve ultralight aircraft landed safely at Qu Nimm. Considering the number of planes in the air and that most were without radios, this proved to be much simpler than I had expected. The few spectators at the field that morning were quite impressed by the arrival of so many small planes at one time.

It was a while before the film crew's van arrived with the fuel needed for the return leg of our journey. During the wait we socialized. If there's one thing UL pilot's enjoy doing almost as much as flying, it's talking about flying. When the fuel truck did arrive and the planes were refueled,



Ultralight aircraft at Black Diamond

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the film crew decided to rearrange the cameras that had been on Wayne's E-Z Flyer. One camera was installed on the right strut of the plane I was flying, another was put on Winston Brown's Beaver and the third camera was left on Wayne's plane.

The weather forecast was correct for a change. By the time we took off from Black Diamond it was about 32 degrees Celsius. At that temperature and the altitude of the Alberta foothills, I was thankful to be flying from Qu Nimm's very long east-west runway. Beyond the runway heading west there is a gravel pit surrounded by trees. We took off toward the east where the terrain was a little more forgiving if a pilot ran into trouble.

Fortunately the runway was more than adequate and everyone got off the ground without incident.

Having been instructed by the folks at Qu Nimm to avoid flying over nearby homes and farms I climbed east and made a wide left turn to a northwest heading. Still climbing to get over the hills north of the airfield I realized our previously tight formation was done for the day. Bob Cameron and Winston Brown were on either side of me but everyone else had gone their own way.

As we passed the crest of the hill, a wide valley stretched out in front of us. With the camera on my plane rolling, I descended off Bob's right wing and followed him as he flew low over the fields. Fortunately he stayed over open ground as much as possible and away from the tree covered hills. I remember thinking at this point how spectacular the mountains looked as we flew north along this valley, and I hoped that the image recorded by the camera would do justice to the magnificent view.

Turning east at Priddis Corner we began heading back to Indus. Navigating
(continued on page 7)

wasn't a problem as we followed Highway 22x. The challenge was keeping Bob within the camera's view. He wasn't wasting any time as he skimmed low over the fields, and the high temperature was creating rather bumpy conditions to say the least.

I turned south as I approached the Bow river and dropped down to tree top level

Destinations

by Andy Gustaffson

The wind, and work for that matter, has kept me on the ground lately. My airplane has been sitting in the dark hangar for over two weeks without me even having gone near it. On Sunday morning the weather office promised calm winds that would increase to strong gusty northwest winds later in the day. The sun was breaking the horizon, as I drove past my four legged, horned guard. The notorious cow just turned her head nonchalantly and kept grazing on what was left of the once so green pasture. Soon my field would be a mine field of hardened cow pies. Foreign pilots beware.

I had come out to do some work on my Challenger and make sure that all bolts and cotter pins were in place. I have also come up with a new and improved way of leading in warm air from the engine to the cockpit. The heat is there, so why not take advantage of it and stay warm and cozy? And it works great. I have written about this in an earlier Skywriter and the response has been very vocal. Nice to get some feedback. Thanks guys. If you need help, just let me know.

After locking up my hangar, (there is also a two-year old bull in my pasture) I set course for Chestermere and the Kirkby - Wildrose airstrip. I could see for miles that all hangar doors were closed but maybe, someone would turn up. Setting up for a landing on runway 34, I spotted the better part of the Indus rat-pac, (I say this in a nice way) coming in from the north. They

over the water. The view was spectacular. It was at that point that I experienced, what was for me, the highlight of the day. As I flew low over the trees along the river two Canada Geese flew up from below and joined up off my left wing. Flying slightly ahead and in close, we were in perfect formation. I don't know whether I got them on film or not, but the image has been imprinted in my mind for ever.

It was actually a relief when we finally

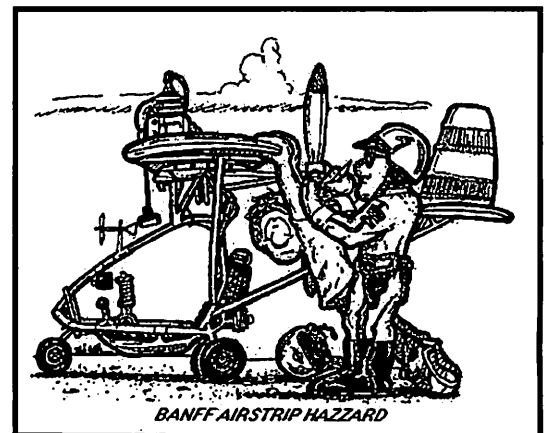
flew in a very relaxed pattern, low and slow, sort of like seagulls hunting for something to eat. A grand site to see all the U/L,s darkening the sky. Fred in his bright yellow Chinook, with the British markings on the side, (Fred's accent does not stem from the British Isles, does it?) landed behind me and announced, "there is coffee and donuts at Indus"! It didn't take long for us to get airborne and hightail it to the familiar Indus-Winters airport. The air was very stable and clear. Fred's one spark plug, one cylinder engine airplane led us slowly but steadily along. My engine RPM was down to 4500 revs as I stayed close to and behind his left wing. The mountain view is spectacular this time of year, with a fresh sprinkling of powdered snow, the peaks just glisten in the sunshine, looking oh, so close. The hangar doors were open and coffee and donuts were served as we taxied in and shut down. These guys sure know how to enjoy themselves. Airplanes, donuts and great conversation among friends! If you like flying, Ultra light aviation is the way to go and it's affordable. With crumbs in my mustache and a silly grin on my face, I had to leave this jolly bunch of aviators, because I had some more flying to do.

The takeoffs in the cool air sure are a treat. After reaching the 500' level, the cross flow from the Chinook winds churned up some turbulence, but I also got a nice tailwind that pushed me along with good ground speed. The Calgary airport tower was reporting a 240° wind at 10 kts and looking at the waves on the many bodies of water, they were right. Water is a very good indicator for winds at ground level. Both wind speed and direction.

return to the airfield. It had been a very long, hot day and I was exhausted. I had flown almost three hours; more than I had done before or since, on any one day. The trip had been a remarkable success. The film crew was very pleased with the hours of excellent footage we had recorded on their three cameras. Wayne said it had been a record-breaking day with twelve ultralights flying together from Indus for a group event. And I was thrilled to have been a part of it.

The landscape below looks very clean and fresh after harvest. If the engine decides to stop, for one reason or another, there are miles and miles of landing strips. And with this in mind it is a good practice to simulate an engine-out. Let the engine idle and set up for an emergency landing. Make sure you pick a big level field for your practice runs. Even control surface failure should be simulated. On my Challenger, equipped with flapperons, pitch up and down can be controlled by raising and lowering the flapperons and can be flown very comfortably without elevator. But as with most things, you need practice, practice and more practice.

The home field came into view and my runway was clear of livestock. The wind had picked up more now and the weather office could put another feather in their hat. They were reporting 250° at 15 kts and gusting. I knew it would be a short landing roll and I set the wheels down within three fence posts before I turned around to taxi to my hangar. The most dangerous part of this fantastic day lay ahead. The drive home. Happy landings.



Saturday Morning

by Bob Cameron

I arrived at the airport about 6:30 in the morning and none of the regular gang was in sight. Not even Jack Barlass. It was very depressing. However, as I was giving the plane the preflight, Bill Watson came by. He mentioned that several pilots were planning to go to Kirkby's and then on to Carstairs for the fly-in breakfast. This sounded like a good plan. I took off and headed north. As I flew over Kirkby's, it was obvious I was too early as there didn't appear to be any activity at all. Since I was already headed in the right direction, I forged on.

With a north wind at about 20mph, low flying seemed to be the order of the day. I managed to hedge hop around the Calgary control zone and north until I found Carstairs. Now I had a problem. I knew Glen Bishell lived on a farm a few miles from the town, but what direction. A quick turn to the west and a thousand feet up, I started to look for an airport..... any airport, I'll ask directions.

I seemed to remember hearing about an elevator at a farm near the airfield, but they weren't to be seen. When I was about 4 miles northwest of the town, I turned east and then south and did a flyby of the town to make sure it was Carstairs. It was, but

still no airport. I had started to give up and was turning for Linden and breakfast there, when I saw an elevator east of town that was not near a railroad. This looked promising so I headed for it.

Sure enough, about a mile north of the elevator was a nice, wide, long grass strip. As I flew over, I started to become disappointed again. There was not a plane in sight and it didn't look as though there was much activity either. Then I saw a man riding a lawn mower. This had to be the place! Who else cuts grass at 7:30 in the morning. I figured I could at least land and ask directions.

As I landed Glen waved me to a parking spot. I had found my way to the right place. Glen was already bringing out the coffee. Over the next two hours about eleven more planes arrived, and Bernie Kespe and his wife Ida, drove up. Glen, Alice and Ida served up some delicious smokies, hash browns and beans. It was great.

A group of about 4 planes headed back at about the same time. I was about 1-2 miles behind them most of the way.

There is an airstrip about 2 miles north of Bob Kirkby's field (Ben Stefanich) As I was flying over it, I saw a blue Rans two-seater, that had been at the breakfast, abandoned in the middle of the runway. This needed further investigation, in the form of a low flyby. As I made my low

pass I saw two people walking away from the plane. The airplane appeared to be sitting with the left main wheel deep in a hole. I assumed the landing gear must be damaged, otherwise, if it was just in a hole, they could surely have pulled it out by hand. The men waved to me as I went by. They seemed to be all right, so I waved back and continued on to Indus.

So it had been a great day of flying with lots to keep me interested. I was back at Indus and stuffed to the gills. Dan, Jack, Winston and Mark all had to put up with my gloating about the great flight and breakfast they had missed. This is one fly-in that I will make a point of attending next year as well.

THANK YOU GLEN.

Late Classified

Avid Aerobatic Speedwing - AULA, 1992, 15 hrs on rebuilt Rotax 582, in-flt adjustable 3-blade Ivo Prop, aluminum seats, new battery, starter, radio, iintercom, GPS, excellent condition, solo cruise 95-105 mph, climb 800-900 fpm, tricycle gear, tail dragger gear included, \$24,000 or \$28,000 with trailer. Roger Riley 337-2600.

A Big Thank You

I would like to take this opportunity to thank Mel Haakenson of Berwin, Alberta for his second contribution of \$100 (1991 and 1998) to the club coffers. Mel has been a member since 1989 (correct me if I'm wrong Mel) and flies a Chinook single seat ultralight. I've only had the opportunity to speak to Mel once on the phone some years ago and do not know much about him - so Mel, please send us a note and tell us about your self and your flying adventures.

- Bernie Kespe



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Kit of the Month

compiled by Bernie Kespe

Shadow

Designed by David Cook, the first person to fly the English Channel in a powered hang-glider, the Shadow first flew in 1983. Originally fitted with an EC44 Robin two stroke engine producing 53hp the engine was subsequently replaced by a Rotax 447 two stroke air-cooled unit producing 40hp, this was to form the basis of the Shadow 'B' series power unit. In 1988 the 'C' series was introduced with the more powerful 50 hp Rotax 503 two stroke air-cooled engine together with streamlined struts, providing a significant improvement in take-off performance. Many 'B' series Shadows have been upgraded to 'C' series specification. Both models conform to the British Civil Aviation Authority, Section S requirements and can be flown on a Microlight licence. The Shadow has a 33ft wing span and is 21.5ft in length.

In 1988 the Streak Shadow was introduced and having a 28ft wing span and the more powerful Rotax 532 liquid cooled engine producing 64hp, it was outside of the UK Microlight category. With a VNE of 140 mph and an initial climb of 1,500ft/min the Streak provides the Group 'A' licensed pilot with a truly low cost flying machine. The standard power unit for the Streak at present is the Rotax 582 liquid cooled, dual ignition two stroke, again with 64hp although some are now being flown with the more powerful Rotax 618 liquid cooled two-stroke power unit providing 74hp.

Both the Shadow and the Streak Shadow are constructed from modern, state-of-the-art materials. The body is built from 'Fibrelam' producing a robust component of exceptional strength, rigidity whilst remaining light in weight.



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The wing spar employs a unique 'I' - beam structure, with a plywood shear web and pre-formed alloy capping. Whilst in its appearance the wing is strutted, it is in fact a cantilever design. The struts provide 'psychological security' and reduce wing root stress in ground handling. The leading edge is a 'D' section of plywood with polyester fabric covering the rear wing.

New models are being developed, the Star Streak has yet shorter wings than the Streak and powered by the Rotax 618

category the Super Shadow will rank among the quickest aircraft in its class.

The Shadow series 'B' and 'C' being within the Microlight category can be purchased ready built, or in kit form, whilst the Streak Shadow is available only as a kit for building under the British Popular Flying Association program.

The Shadow can be rigged in under 10 minutes, with times from trailer to flight realistically 30 minutes, which includes the rigging and pre-flight checks. The Shadow is truly a short field aircraft with members regularly flying from strips of less than 300 metres. Applying full power, the Shadow is easily airborne within 7-8 seconds with a climb-out at 60 mph achieving 800-1,100ft/min depending on the type of propeller and load etc.

Shadow Achievements & Records

To date more than 400 Shadows have been built around the world and the Shadow is not short on records. Two flights have been made to Australia, the first by Eve Jackson in 1987 and then by Brian Milton in 1988. More recently James Edmonds flew a Shadow to
(continued on page 10)



Streak Shadow

achieves an initial climb rate of some 2,000ft/min solo and 2,800ft/min in a zoom climb. The Super Shadow series 'D' has a wider cockpit and is powered by a Rotax 582. Falling within the Microlight

Shadow - continued from page 9

Beijing. In 1983 the Shadow achieved an FAI world record for its class for speed over 3km. In 1984 it achieved a distance record for its class. In 1990 a Shadow achieved a UK national altitude record of 23,648 ft. Also in 1990 the Streak achieved a UK national altitude of 27,066ft in its class.

Streak Shadow

Standard Kit Build Time: 500 Hours
Quick Build Kit Time: 250 Hours

Specifications & Performance

Empty Weight	388 Lbs.	Take-off Roll
	100 Ft.	
Gross Weight	900 Lbs.	
Rate of Climb	1,700 FPM	
Useful Load	512 Lbs.	
Best Rate (Vy)	69 MPH	
Wing Span	28 Ft.	
Best Angle (Vx)	65 MPH	
Wing Area	145 Sq. Ft.	
Ceiling	29,000 Ft.	
Average Chord	5.2 Ft.	
Max. Spd (Vne)	141 MPH	
Aspect Ratio	5.4:1	
Max. Level Spd	121 MPH	
Length	21 Ft.	
Cruise (50%)	80 MPH	
Height	5.9 Ft.	
Cruise (80%)	100 MPH	
Seats	Two.	
Glide Ratio	13:1	
Power Loading	14.1 Lbs/HP	
Power Off Stall		
Fuel Capacity	14.5 US Gal.	
Full Flaps	31 MPH	
Load Factors	+4, -2	
No Flaps	35 MPH	
Landing Roll	100 Ft.	
Crosswind Cap.	20 MPH	

Standard Engine Rotax 582

Standard Equipment

ASI	Altimeter
Brakes	Compass
Fuel Gauge	Tachometer
3 Position Flaps	Safety Harness
Dual Controls	Electric Trim

Streak Shadow



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One Pilot's Opinion

by Bob Kirkby

I hope everyone has been out enjoying this beautiful flying wx we have been having this past month. I unfortunately have not, but that's a story of many parts best left for another time.

I received some great support on the newsletter this month and would like to thank those who helped. Carl Forman and Bob Cameron were first timers and provided some very interesting stories. I hope you guys will follow up with some more material, it's really great to have stories by our own club members. Andy Gustaffson and Dan Mitchell both provided some excellent reading, as usual, and of course Bernie Kespe kept the press busy with the kit and builder articles he pulls together from a myriad of sources. I even have the luxury of two articles in the bank for next month. Thanks very much guys. And thanks to President Wilf for his regular inspirational message.

Any member who has something to say, and I know there are a few of you, can do so in the Skywriter simply by sending me a note and I will run it as a Letter to the Editor. You don't have to go all out and write an article. Everyone is interested in your views and opinion so just jot them down and get them to me by e-mail, fax or mail:

E-mail: kirkby@accinc.ab.ca
Fax: (403) 291-1112
Mail: Box 16 Site 20 RR7
Calgary, AB T2P 2G7

For those who weren't at the last meeting, my Renegade and I ended up in the field at the end of my runway last month. There wasn't any damage but it served a good lesson on pre-takeoff checklists. So listen up.

Several of us were preparing to leave on a group flight to Dave Bolton's one morning and I was sitting in the Renegade with the engine running waiting to go (Carl was having some difficulty with his radio). I had accidentally over-filled my left wing tank and with the vibration there was a little fuel running out the cap breather onto the wing. So while I waited for everyone else to get ready I turned my right tank off and rev'd the engine to burn off fuel from the left tank.

Now, part of my pre-takeoff check is to make sure both tanks are turned on. But, of course, I had already done my pre-takeoff check and as soon Carl signaled he was ready over the radio I firewall'd the throttle and went. Well, the result was that I climbed to about 75 ft and the engine died. I could tell that it was fuel starvation by the way it quit and although I probably could have used the primer to keep it going, at 75 ft I took the safe and less complicated action of setting down in the field at the end of the runway.

Back at the hangar I discovered that the fuel flow from my left tank was about 30% of what it should be. The right, of course, was providing full flow. With the right tank turned off the left was obviously unable to supply sufficient fuel at full throttle. I haven't had the time to investigate further yet but I suspect the blockage is at the tank exit.

The moral is, "do not let a distraction keep you from doing proper checks". In this case I should have done my pre-takeoff checks a second time after sitting there idling for so long. "Learn from the mistakes of others, you won't live long enough to make them all yourself."