



# Skywriter

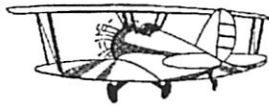


Monthly Newsletter of the Calgary Ultralight Flying Club

November 1993

♪ Off We Go ... ♪

by Wayne Winters



Whadda Fall! And we're not just talking about stumbling in the junk piled around the hanger. After one of the crummiest Summers on record we have been dealt one of the nicest Falls ever. Apart from a few cold days and bit of wind, the Angels of Flying Goodness have smiled upon us and we have been able to take to the skies in droves without even having to fight for our airspace with the mosquitoes. It is nice to go flying without having to scrape a 1/2 inch layer of bugs off the wind screen, leading edge and prop, not to mention the ones caught in the goggles and teeth.

The fields have been, and still are, at one of their most beautiful times, with all the shades and textures of gold. What a sight it is to see the yellows and gold of the Earth sewn together in huge square and rectangular patches as if in a magnificent quilt that rolls out to the foothills and disappears at the base of the snow capped mountains. From the air you don't even miss the leaves that have left the trees barren and robbed the earth bound of their beauty.

If you haven't been flying for a few weeks (months) this is a time not to miss. Early morning, at first dawn, is the best time - the air is smooth, fresh, and clear. 99% of the time when you roll your craft out in the early morning you will think that it is far too cold to go flying - burr it is chilly. But surprise, surprise, once you are off the ground you will hit an inversion of 100 to 300 feet AGL that contains very warm comfortable air. Ha, Ha you will say, as you look down seeing land bound earthlings chattering their teeth. Those inversions are nice

surprises we get around Calgary all Fall and Winter long. One last note - with the crops off the fields the tension of where to go in a forced landing situation, is at a minimum.

### The October Meeting

Once again we had a full house for our monthly meeting. We really appreciate the support and attendance of our members and guests. It is really important to attend the meetings and give your input and support. I, as I am sure you do, learn something new to do or not to do at each meeting. This is a wonderful sport we are involved with and we can learn a lot from each other.

We received a letter from the Red Deer Air Show Committee thanking us for our support once again in 1993. Also a letter came from the Calgary Stampede Board, but the envelope was empty. We are not sure how to interpret the vacant message, although if it had come from one of our Politicians it could have been filled with empty promises or just good old hot air! The possibility of having an Ultralight in the Calgary Stampede Parade was discussed. The Parade theme and cost of insurance for such a venture will be looked into, and possibly we will have an airplane in the July 1994 Parade. A letter was received from the Model Railroad Association regarding their annual show in November. We have participated in this show over the past 2 years, and perhaps will again this year, but it will not be held in November. It looks like the next one will be in May 1994. The Stampede Board seems to have priced them out

of the Round Up Center and they will likely move to the Olympic Skating Oval for the Spring Show.

Ron Sondergaard, one of our all time long time members has been ill and thanked us for the flowers. He said that they arrived at just the time that he needed a little cheering up.

Bob Kirkby gave us a briefing of the Alberta Aviation Council and what transpired regarding our presentation for their convention. In short we did not participate for reasons outlined in the last issued of the Skywriter.

Stu Simpson flew to Red Deer and had a ride in the back seat of the Challenger. He gave us a briefing and said that he wasn't frightfully impressed. He mentioned, though, that another time when he had flown one from the front it was a different story. We appreciate hearing your comments and reactions to any aircraft that you have recently test flown.

The topic of life insurance for Ultralight pilots was brought up by Fergus Anderson. Just so you are aware, most companies do not provide coverage while flying an Ultralight or Home Built A/C unless a special rider (extra charge usually) is added. One company that we understand does, at a fairly reasonable cost, is Mutual Life of Canada. I am sure that others do and if you feel it is necessary, it is best to find out.

Dave Forrester, the President of the local chapter of the RAAC, was present at the meeting and we put him on the spot to pass on some words of wisdom, which he did. Thank you Dave.

Doug Ward, Vice President, has been communicating with the National Recreational Aviation Council  
*(continued on page 2)*

## A Little Prop Wash

by Douglas J. Ward

From the excellent meeting that we had in October, I suspect that the CUFC may be able to infuse some thoughts into any rule changes which may occur concerning us. With all the talent that we have in our club, concerning both flying and construction, I feel that our club may be able to offer some positive ideas to the National Recreational Aircraft Committee in their quest to improve the rules for ultralights and AULA's. Hopefully, anyone who does have any ideas which they feel may be of benefit to ultralight fliers, will bring, or send, these ideas to our meeting for discussion and possible referral to NRAC.

I had a phone conversation with Reg, from Reg's Air Cooled Engines in Surrey, BC. He informed me that there may be a problem with some of the unleaded fuels that we could be using in our Rotax engines. It may be caused by the decision of some oil companies to use Oxygenates in their unleaded fuel. An oxygenate is an additive that adds oxygen to the fuel. This, in theory, should cause a hotter burn and thus fewer emissions from an automobile engine. It can also possibly cause engine problems in a Rotax. Engines which have had from 80 to 125 hours on them suddenly started to develop a problem with sticking pistons and some detonation

*(Off We Go - continued from page 1)*

regarding the upcoming regulations affecting Ultralights. He updated us on some of the communications he has had with them. Doug was selected, nominated and voted as the person to communicate the suggestions of the CUFC to the NRAC. He will be keeping us posted on what is happening with the powers that be in Ottawa.

The meeting was wrapped up with a very enlightening confession session of some recent oops incidents from 3 of our members, and an entertaining video of Oshkosh '94 provided by Ken Wittington and Jim Creasser.

### Door Prizes

The door prizes were a set of Christmas lights won by Jim Creasser and a flashlight won by Kelly Kuzic. Remember to support our monthly door prize pool as the proceeds are going to help the 783 Wing with the meeting facilities that we are using.

problems, resulting in burned and sunken piston crowns.

However, no mechanical problems were found with these engines, such as worn upper or lower rod bearing, worn crank bearings, or wear in the rotary valve mechanism. With the damage seeming to be in the combustion chamber only, a fuel problem seems very high on the suspect list.

It is highly recommended that you very carefully check the additives in the fuel that you are burning in your Rotax engine. Our two-stroke engines do not have the sophisticated computer controls that four-stroke engines have to monitor and control the combustion process in the cylinder (timing and fuel amounts). Therefore, we must do all we can to fuel them with the best and safest fuels we can. There appear to be two oxygenates that are now used: Methyl Tertiary Butyl Ether (M.T.B.E.), and Tertiary Amyl Ether (T.A.M.E.). I cannot tell you which fuel to use in your aircraft engine, but I pass on to you the information that I was able to get on unleaded autofuels. Personally, I wouldn't use any Imperial fuels in my Rotax, but for now I would use a Shell or Petro Canada product. Also, try to be sure that the fuel you do choose is within the specifications that Rotax wants (Octane number not below MON 83 or RON 90 - Unleaded preferred). It is also recommended that you do not use a fuel that contains alcohol (Ethanol), in a Rotax ultralight engine. Adding fresh fuel to the old fuel that is in your tank will not spark up your old fuel. It will actually decrease the octane rating of the fresh fuel that you just put in the tank. With the altitudes that we start out at, we need all the octane rating we can get.

Also be sure that you do not skimp on your choice of two-stroke oil. The word id out from Rotax that you should only be using a 50:1 ratio (2%) in your engine. Be sure to follow the recommendations from Rotax (Super-two stroke ASTM/CEC, TSC3 seems best for inverted engines). Sparkplug "up" engines have so far not shown any ill effects from using an oil other than Rotax's recommended oil, at the 50:1 mix. You may get a little more smoke or a little more carbon on your pistons, but remember that the oil is the only lubrication that the inside of your engine gets. On climb-out, your engine is being pushed to its maximum, and it needs all the internal lubrication it can get.

Using the best fuels and oils that we can in our Rotax's can only tend to decrease the potential for some engine problems that we may have during our



### EXECUTIVE

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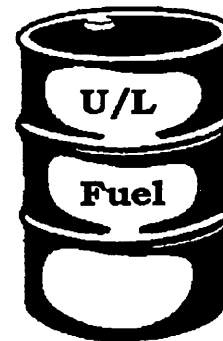
**Director**  
Stu Simpson 255-6998

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Bob Kirkby 569-9541

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

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

R.C.A.F. Association  
110 - 7220 Fisher Street S.E.  
Calgary, Alberta



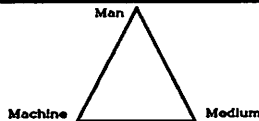
flights. Sometimes it may not be an engine problem, but something that we may be feeding it to burn. A little extra time and some inquiry at the gas pumps may mean a lot more time in your safely flying ultralight.

It is now getting to the time of year when an ultralight flier should start to consider the fact that carburetor icing can tend to develop. Remember the things to watch out for and what to do during a long descent. Make sure you have good engine response before you are just five feet off the strip on approach to land.

Safe flying to everyone and hope to see you at the next meeting.

# Safety Corner

by Paul Hemingson



## Your Safety Bank Account

Sometimes, metaphors make things easier to understand. This month, I would like you to look at the outstanding balance in your Safety Bank Account. Have you been making regular deposits? Maybe you are getting close to being overdrawn?

Regular deposits increase the balance, and withdrawals decrease the balance. One thing for sure, you never want to become overdrawn. There is no Overdraft Protection for your Safety Bank Account. How do you make deposits to get a more robust balance?

Regular deposits can only be made by yourself. With a regular bank account your money earns interest for you, by virtue of the interest earned, even if you do not make deposits. Not so with the Safety Bank Account.

The balance of your Safety Bank Account actually decreases when you don't make regular deposits. Think of it as a kind of "negative interest"! How an this be?

The easiest way to think of it goes like this..... the Safety Bank Account requires some regular deposits in the form of education, experience, skill improvement and attitude recognition. Use 'em or lose 'em! You have heard it before, but self-discipline is required to improve in each of these elements. It don't just happen. You make it happen.

From time to time, all pilots find themselves in a situation where they feel it necessary to draw from their safety account. For example, the pilot may decide to push on in marginal weather, or land in crosswinds that challenge his abilities. This is natural and human and one learns the most in terms of experience and skills when he finds it necessary to push the "envelope" of his capabilities. What a pilot doesn't want to do, is to draw from the account on a regular basis.

I said earlier that only YOU can make regular deposits by learning from the mistakes of others. By reading, by writing, and by listening and watching her pilots. But we do not live in a vacuum, and significant others may make indirect deposits in the form of an investment.... or sometimes tragically....a legacy.

You have many roles to play. You may be a husband/wife, or son/daughter, or father/mother. Your life is not independent, but interdependent. Because others value you, they want you to be safe, and rightly so! It is your duty to think of them as well as yourself.

Responsible pilots consider more than themselves in the safety equation. Others may make an investment in your welfare by supporting your avocation, by sometimes questioning your motives, expressing their concerns, wishing you a safe flight, and sometimes encouraging your aspirations. Many of them hold their breath until you return safely. They willingly contribute to your Safety Bank Account, and the responsible pilot will recognize their support. Before doing anything foolish, think about the people who think about you. Enough said.

Sometimes, the balance in your Safety Account gets a boost in the form of a legacy. This happens when a pilot you may know has an incident or accident. They would all want you to pay attention and hear what they have to say....so you don't repeat their error. Listen up! Some of them paid the ultimate price.

Sometime soon, pull out your Safety Account Book, and look at the Outstanding Balance. If it appears to be getting a little low by virtue of "negative interest" or lack of deposits, then its time to do what you need to do to make some deposits.

## New Members

### Kelly Kuzyk 240-7843

Kelly is thirty something and works in the military at CFB Calgary. He has had a tour in Sarajevo and feels that home flying ultralights is better. He has been flying for a couple of years and recently bought a single place Challenger that is near completion.

### Dave Dedul 823-6054

Dave is 40 and flies hang gliders, powered hang gliders, and radio controlled models. He has wanted to fly 3-axis control for years, as he started out working on a conventional license years ago. Dave bought a Chinook 2S and is almost finished refurbishing it.

## Classified

**Bushmaster II** - 1986, 2-place, Rotax 503, 15 hrs since rebuilt motor, very nice, always hangared, VSI, ALT, ASI, engine gauges, \$12,500 delivered, OBO. Pat Rudiger 403-986-3159.

**Wanted** - 2-place ultralight with enclosed cockpit, in good condition. Andy Gustafsson 247-3245.

**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, \$9,950.00 (Reduced). Jim Creasser 226-0180.

**Trailer** - all metal, fully enclosed, 7'w x 24'l x 6'h, built for airplanes, \$800.00. Jim Creasser 226-0180.

**Hiperlite 2-place** - excellent condition, Rotax 503, full instruments, extras. One of the best aircraft around. Price reduced to \$18,000. Paul Hemingson 931-2363.

**Rear Fairing** - for RX550, white, new, \$50.00. Doug Ward 282-0806.

**Ivo Prop** - updated 3-blade, ground adjustable, 60", composite blades. New - \$300. OBO. Paul Hemingson 931-2363.

**Hiperlite SNS-8** - 200 Hrs. TT, hydraulic brakes, ground adjustable prop, STOL, fun aircraft to fly, good condition, \$7500.00. Bob Campbell 934-3657.

**Gauges** - Dual CHT and Dual EGT gauges, \$125.00 for both. Ken Johnson 546-2586.

Classified ads are free to CUFC members. Call Bob Kirkby, 569-9541 to place your ad.

### Bob Casper 936-5435

Bob is slightly past the "big" 50 and has wanted to fly for years. He has a trucking business and an acreage, complete with an airstrip. Bob has been taking lessons for the past few weeks and soloed on October 11, 1993.

**Experience is not what happens to a man. It is what a man does with what happens to him.**

- Aldous Huxley

In September, one of our CUFC members tried the "Impossible Return" and didn't make it back to the runway. The following article is reprinted from the latest issue of Transport Canada's Aviation Safety Letter distributed with the A.I.P. updates. It is a timely analysis of what not to do when your engine quits on climb-out. - Editor

## Impossible Return

In May 1992 at Tumbler Ridge, B.C., a Piper Cherokee aircraft with five passengers crashed following an attempt by the pilot to return to the runway after experiencing an engine failure. The aircraft was only 100 feet above the ground when the engine problem occurred. The aircraft stalled during the attempted turn, causing loss of control at an altitude from which recovery was impossible.

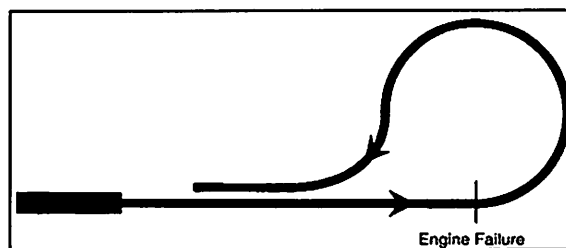
This was not an isolated accident. During a 10-year period from 1982 to 1991, there were 176 accidents resulting from engine failure after takeoff in single-engine aircraft. In about half of these, the pilot tried to turn back to the departure runway instead of landing straight ahead. In most of these accidents, the pilot lost aircraft control while attempting the impossible return to the runway.

An analysis of these accidents showed that an aircraft crash caused by loss of control as a result of excessive manoeuvring is 10 times more likely to cause fatalities, and five times

more likely to cause serious injuries than if the pilot had elected to land straight ahead. Lower groundspeed associated with a straight-ahead into-wind forced landing, as well as being under control prior to impact with the terrain, reduces the risk. Surprisingly, the data also revealed that experienced pilots are just as likely as novices to attempt the impossible.

Using data from the Cessna 172 Aircraft Flight Manual, our test pilots crunched some numbers to help convince you that straight ahead and under control is your only real option.

Using the following conditions, the analysis was done for an engine failure at 500 ft and 1000 ft.



### Conditions and Assumptions

Altitude	Sea level
Temperature	ISA
Wind	Calm
Climb Speed	75 KIAS
Rate of Climb to 500 feet	688 ft/min
Rate of Climb to 1000 feet	675 ft/min
Glide speed after engine failure	65 KIAS
Glide performance	1.5 miles/1000 ft
Bank angle in turn back	30 degrees

The analysis assumes a straight climbout followed by a 270-degree turn, a reversed 90-degree turn and a straight return to the runway. It also assumed that the climb starts at the end of the runway at 50 ft and at the specified climb speed. Flap extension for landing was not considered.

Results	Failure at 500 ft	Failure at 1000 ft
Time to climb	39 secs	84 secs
Distance covered	4937 ft	10,634 ft
Radius of turn	648 ft	648 ft
Return distance covered during turns	1296 ft	1296 ft
Distance remaining to runway	3641 ft	9338 ft

Total distance from failure back to runway	7711 ft	13,408 ft
Glide capability after engine failure	4560 ft	9120 ft

The analysis shows that from 500 ft a turn back would result in a landing 3150 ft short of the runway, and from 1000 ft the landing would be 4300 ft short.

You can argue that a tighter turn reduces the distance back, but it also increases the load factor and therefore degrades glide performance, gaining you no advantage.

If a 10-knot headwind is considered and the numbers recrunched, the results shows that the landing would still be 1840 ft short of the runway for the 500-ft case and 1460 ft short for the 1000-ft case.

The calculations indicate that given sufficient wind a return to the fields may be theoretically possible, but the hazards of a downwind landing in such a strong wind would not make this advisable, especially if one considers the very low groundspeed expected during a forced landing directly into a strong wind.

In summary, for a single-engine aircraft, given reasonable wind conditions, it is not possible to return to the takeoff runway following an engine failure. Straight ahead and into wind is the only option. ^

# Around The Patch

by Stu Simpson



## West by Northwest

I could tell this was going to be fun. The day had adventure written all over it. And you've just gotta know the day is ok when Don Rogers shows up early instead of late.

He and Fred Wright were on a long downwind for Kirkby's runway 16 when I first heard them. I had just started my pre-flight when I caught the distinctive whine of their 503's to the south. Don landed first, settling gently to the grass. Freddy took his time, the Chinook's big wing coasting in ground effect until just before the intersection. Then he too settled to the earth and became mortal again.

The three of us were going exploring today, heading to Dave Forrester's place. Forrester is the big cheese at the local R.A.A.C. chapter. He lives north of Cochrane about a mile off highway 22, half way to Cremona. He gave me a hand-drawn map to his place when we met at the October CUFC meeting. I don't know what Forrester does for a living, but he ain't a cartographer.

Still the map was the only way we were going to find his place. I'd checked on the Calgary chart to see if I could match up his symbology with the government's. If my calculations were correct, I was reasonably certain we could find the place.

The only thing that worried me was a note that Forrester had put on his map. It read, "Strongly suggest an overshoot before landing - center is 20' higher than the ends & runways undulate". I could only imagine what "undulate" meant.

When everyone was sure of where we were going and how we'd get there, we all saddled up and turned north. I had been elected leader for the day so Don set up off my left wing and Freddy off the right. I must say, we cut an impressive figure in the afternoon blue.

It wasn't too long before we drew close to Jim Creasser's place. I looked for him on the ground as we flew by, but he was nowhere to be seen. A few minutes later we crossed highway 2 and I began scanning for landmarks to navigate by.

We had to follow the highway west from Airdrie to its intersection with

highway 22. None of us had been this route before and we were very pleasantly surprised at the landscape beneath us. The bald prairie changed quickly to a very uneven texture of small hills and knolls covered with autumn's brown grass and scrub. It's not what you would call pretty, in fact it looked rather alien, but it sure was interesting.

Then we saw the most surprising thing of the day. About halfway along 567, 100 meters north of the road, was a fort. No kidding. Someone had simply built a log fort in the middle of nowhere. It was just like one from an old cavalry movie, complete with guard towers in the corners. How or why it's there is a complete mystery to us.

The moonscape quickly changed to more hilly country. We watched as Nose Creek cut an enormous gorge northward through the area. Then we came to another river, whose name I don't know. Looking at the map though, I noticed if we followed this river, it would take us very close to where we wanted to be. And it would even save us a few minutes travel time.

We followed the creek to the next intersection that Forrester had drawn. Then we were over a spot that looked just like his map. Sort of. It had the fields in almost the right place. And if you looked hard you could kinda see a path in the field that looked like it might have been a runway. At one point anyway. And there were some buildings that looked big enough to house an airplane.

I decided to do a fly-by to check the place out. I told Don (Fred's radio wasn't working) my plan and began descending. I was just turning in for the left-hand downwind when a wind sock caught my eye. Then two runways became clearly visible, one north/south, the other east/west. Only the strip was in a different field. I had completely missed the mark. I might add, in a futile effort to save face, that my wingmen also missed the correct field.

Fortunately, I was set up perfectly to turn to a right-hand downwind for a landing to the south. Let me tell you, Forrester wasn't kidding when he mentioned the hill in the middle of the strip. He did get the height right, about

20 feet higher than the end. Now I know why I got picked to go first.

My wingmen were visible in the circuit as I coasted in on final. It occurred to me that I'd never made an uphill landing before. But with the wind blowing right on the nose, and the ground coming gently up to meet me, my touch down was a beauty. I dodged a few badger holes on the rollout and cleared the runway near a fenced cow pasture (since my last pasture landing, I keep a pretty close eye on where the cows are).

Don was on short final, slowly sinking toward the ground. It was just plain eerie to watch the Chinook disappear from sight. I kept expecting a column of smoke and fire to erupt from the other side of the hill, like in the movies, but of course the Chinook came trundling over the top of the hill a few seconds later. Then Freddy touched down and we all went exploring on the ground.

But no one was home. Either somebody had squealed and told Forrester we were coming, or we just flew in on the wrong day. So we just hung around on the ground and checked out the Forrester homestead's hangar. There were three planes in it. One was a beautiful old Luscombe in immaculate condition. What a sweetheart. There was also a homebuilt in there, type unknown. The front end was in pieces because of work being done on the engine. The last plane in the shack was Forrester's Kolb Firestar. A pretty, yellow single-seater that looks like a lot of fun.

It was time to bug out. These fall days run notoriously short of light in a hurry and we didn't want to take any chances. We ambled out to the hay-field/airstrip. I suited up and swung the prop. And swung the prop. And swung the prop again. But nothing wanted to light. The motor would gargle and struggle for a few seconds, then it would just kind of croak. Don and Fred both shut down and came over to help. We tried everything, changing the plugs, switching the plugs, and fooling with the carb. Nothing was working. Then Don suggested we check the sparks and sure enough we found our problem. The PTO plug wasn't getting anywhere near the spark that the mag side was getting. We decided to give it a few more tries and, fortunately, it caught.

We each did our first uphill takeoff, which was fun. It's on days like this you appreciate a good climb rate. We all formed up and turned back to the *(continued on page 6)*



## First Solo Congratulations

"BOINK"

"BOINK"

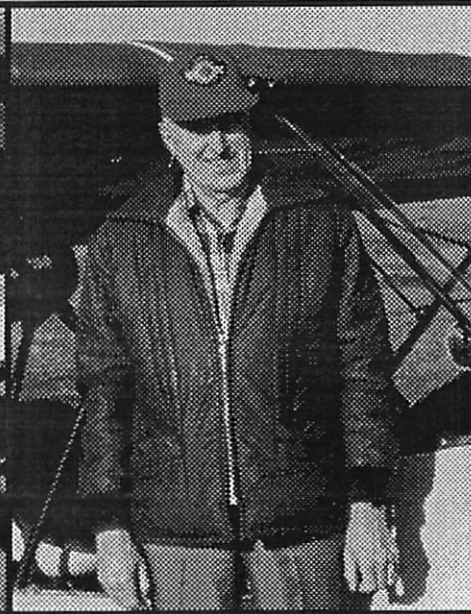
"BOINK"



**Roger Reilly - Oct 31/93**



**Bob Casper - Oct 11/93**



**Ken Vancise - Sep 25/93**

*(Around - continued from page 5)*

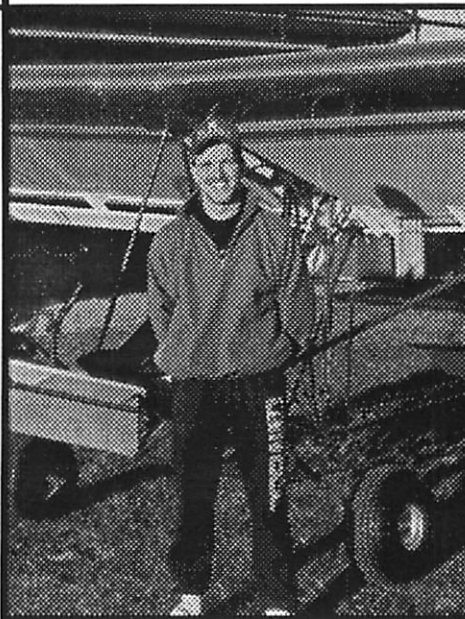
southeast. We had spent a fair amount of time trying to get the Beeve working again and it had cost us some daylight. With the wind on our noses at about 7 - 10 knots, we'd be cutting it close to make the home 'drome before dark.

Then my radio died. I figured that since Don was the only one of us who had an operable radio he should take the lead. So when he was in a safe position, I peeled off to take up the left-wing slot on him. He didn't get it. We flew on like that for a few minutes with me waving my arms like an idiot trying to signal him that he was now number 1. I don't know what he thought I was doing, maybe airobics (pun intended) or something, but he soon peeled off to take up his original slot.

Poor Fred. God knows what he thought was going on.

We soon made our way back to highway 2, about halfway home. Don had been very careful watching our altitude so near the Calgary control zone, and we're very glad he did. Just as we passed over the highway, a Cessna Citation sailed over going at about 150 knots, missing us by only 100' as it turned final for YYC's runway 16.

Our formation turned south when we reached the east end of the control



**Cor Kooistra - Aug 31/93**



**Bruce Piepgrass - Oct 17/93**

zone. Home was only a few minutes away. Good thing too, because we were running out of daylight and I was running out of body heat and bladder space. A mile north-east of Kirkby's I peeled off to the east and entered my base leg for runway 16. The Chinooks continued southbound to Indus as Don bid me farewell on the radio, which was sort of working again. I cleared the runway and climbed out to watch them silhouetted on the evening sky. It was truly a beautiful sight and a post-card ending to a great day of

flying.

I guess that will likely be our last major cross-country flight until next spring. Unless, of course, we have a mild winter, or a really good destination and a warm day, or hot chocolate waiting at the end of the line, or..... Well you get the picture. I'll let you know how it turns out.