



Skywriter



Monthly Newsletter of the Calgary Ultralight Flying Club

February 1996

Calling All Air-Heads

If you've ever laid awake at night dreaming of airplanes, or sat at the airport for hours just watching whatever takes-off or lands, you might be an Air-Head. What's worse, if you know the answers to the following five questions, you're DEFINITELY an Air-Head. If you don't know the answers, don't worry, they're somewhere else in this issue.

1. What is the jet, designated the A-5, better known as. In which conflict did it serve, and what was unique about it's weapons configuration?
2. What is the correct term for the pedals at the pilot's feet in a helicopter?

3. From which aircraft was the Husky Norseman originally derived. Where was it manufactured, and what was the company's name?

4. In aviation's alphabet soup, what do the acronyms VNC, VOR, ILS, MLS, and NDB stand for? What do they all have in common?

5. What is the DHC-6 more commonly known as, and how old is the company that manufactured it?

(Look for the answer elsewhere in the Skywriter)

President's Message

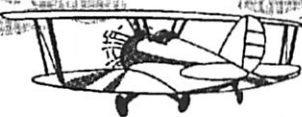
by Ed D'Antoni

Well, I missed the first meeting of 1996, which isn't a very good a start for a new president. The first major snow storm of the year created a little more work than anticipated. However, as I promised Wilf Stark, the roads were sanded and plowed right up to the R.C.A.F. Association door. Thanks to Wilf and Stu Simpson the meeting was a success, despite the weather-induced poor turn out. I understand that Jeff Calvert, Chief Pilot for the Calgary Police helicopter HAWC1, gave an excellent and interesting presentation. Hopefully, we can have him back in the future.

Wayne Winters thanked all of the past executive and introduced the new directors in the January Skywriter, thanks Wayne. I hope we can carry on in the fine tradition of past executives. I'd like to thank Wayne for the excellent manner in which he carried out the duties of president over the past 3 years. I'm especially impressed with the way Wayne conducted the meetings. His entertaining style and vast ultralight experience kept the meetings fruitful with or without a guest speaker.

I hope we can restart the practice of having a guest speaker at every meeting. And since we have so many knowledgeable members in our club, perhaps we can also convince some of these people to present some topics of interest. Speaking of interest, Stark and Simpson have compiled a questionnaire that accompanies this newsletter. Your completion of this questionnaire will help formulate club activities and direction over the next
(continued on page 3)

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Letters

From readers



Editor:

The Alberta Aviation Council (AAC) is holding its ninth annual "Get S.E.T." (Safety, Education, Training) Workshop from March 8th through the 10th at the Marlborough Inn in Calgary.

The theme of this year's workshop is "Take a Walk on the Safe Side," and the focus is to help pilots and aircraft owners to become better prepared for the spring flying season. Topics will cover a variety of subjects such as night flying, survival skills and single engine aircraft production and include speakers from Aviation Safety, the Alberta Airport Operators Association, Western Maintenance Engineers Association and Cessna Aircraft Company.

In 1996 the new Canadian Aviation Regulations will be coming into effect and this will impact aviation across Canada. Therefore, in addition to the regular workshop program, Transport Canada will be hosting a number of seminars on the new CARs.

Of course, the workshop is not 'all' work. There is always a social element. A reception will be held on Friday evening and if it is going to be as enjoyable as it has been in past years, it is definitely worth attending. As usual there will be numerous displays to view and those looking for a challenge can take part in a "snag"

contest. It is a great time to meet with other aviation enthusiasts to exchange experiences and make new contacts.

On Saturday evening, a banquet will be held and Captain Al Haynes will be speaking about "The Crash of Flight 232." Also that evening the Alberta Aviation Council will be presenting its "Annual Alberta Aviation Achievement Award." This award is given to a private pilot, within Alberta, who in 1995 attained the highest marks on his or her flight test and written examination, and includes a credit for \$500.00 towards future flight training. (Contact AAC for information on how to apply.)

So whether you are a pilot, student, flying companion or aviation enthusiast, there will be something of interest for you at this year's GET S.E.T. Workshop.

For more information or for advance registration (for the weekend or just a one-day pass) contact Alberta Aviation Council (403-451-5289).

Yours truly,
Carla Pearson
Alberta Aviation Council

Editor:

The St. Albert Flying Club is a loose knit group of U/L and Light Plane pilots from the Edmonton area. Over the past few years we, as a club, have arranged a few "fly-outs" to various events around northern Alberta. Some of our members have expressed an interest in venturing further south this summer. Hence the reason for this

letter.

During our club meetings it has been suggested that we select an area to explore in central Alberta. It was also suggested that we could make these outings a weekend affair by camping out for the weekend (some of our members would be more appreciative of a warm motel room though!). It was suggested that it would be interesting to meet up with members of other flying clubs interested in doing the same type of thing.

I would appreciate you bringing this to the attention of your membership. Maybe we can arrange a weekend fly-out where we meet up with some of your members. It is always interesting to meet up with new people who share a common interest.

We have not set any dates for this type of event, so maybe we can arrange something through our flying clubs.

Either drop me a line or call me at 403-460-2075 to let me know what your membership thinks of a fly-out to meet some of the St. Albert Flying club members.

Respectfully yours,
Bob Robertson President, S.A.F.C.



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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
5430 - 11 Street N.E.
Calgary, Alberta

(President - continued from page 1)

ear.

The annual New Year's bash, held at the RCAF Association on January 27, was a great party. About 40 people attended and there was some great food and hangar flying for all to enjoy. In addition, the silent auction and games-of- chance raised more than 157 dollars. Many thanks go to Kelly Kuzyk for arranging who brought which food, and to Art and Helen Hill for manning the kitchen and bar, respectively. Members should definitely make a point of attending next year.

Product Review: Microsoft World of Flight

Microsoft's encyclopedia, Encarta, contains information on every aspect of aviation including homebuilts and ultralights. I recently received a flyer from Microsoft outlining a new release, "World of Flight". Considering the quality of information, photos and film clips in Encarta, I thought a CD dedicated to flight would likely be outstanding. After much searching I finally located and purchased this CD, though it turned out to be far short of outstanding.

The CD cover states "Explore the history, people, and technology of aviation". It contained very little to explore, and what there was indeed outstandingly disappointing. The CD is relatively inexpensive at \$44.95, but it's quality and content are what I would expect from a \$12.00 disc found on the bargain shelf of a discount computer outlet. Overall content is limited, links to information on a specific topic do not exist. You can't even page through topics of interest. You must go back to the index every time. Searching the index one finds the words 'Microlights' and 'Homebuilts'. They're covered like all other topics - poorly and one screen per topic. These sections only contained a few words of text and pictures of seven different planes in total. On the positive side, the CD contains 61 interesting short film clips. If you're interested in borrowing this CD give me a call. I won't miss it.

Suburu Heart Transplant

by Gerry Moore

Having recently swapped out a Rotax 582 for a Suburu EA-81 in my Avid Flyer, there seems to be a fair amount of interest in my reasons for the change and what the results have been.

To start with, I had three objectives going into this conversion which were, in order of priority:

- 1) greater reliability
- 2) lower cost
- 3) higher performance.

On reliability, two strokes have been a compromise in favor of low cost and low weight. Few pilots, however, fly two strokes with an overall sense of confidence in them. To safely fly a two stroke is to significantly limit the type of flying you can do. Two strokes were worth the risk when you could buy them for \$1500 and when ultralight airframes required light engines. But things are changing.

Two trends are creating interest in four stroke conversions and have the potential to re-shape, yet again, what the term 'ultralight' means. First, currency devaluation has made two strokes very expensive, and second, today's airframes are readily accepting heavier and more powerful engines as their gross weights increase.

The Suburu opposing flat four cylinder engine was originally designed by the Japanese as an aircraft engine and was later adapted to auto engines. The

engine is said to be well suited for conversion because of the main bearings which can take the loads created by the reduction system, the robust construction of the engine, and because of its compact size. The single negative is the additional weight of the engine over a two stroke. You are comparing, however, a two cylinder two stroke 65 HP engine with a four cylinder four stroke 100+ HP engine.

Suburu conversions are now being offered on a wide range of light airframes, both tractors and pushers, such as the Merlin, Genesis, and Avid to name a few. These conversions come in both 1800cc and 2200cc sizes. The 1800cc engine is the one used most often and comes with either fuel injection or altitude compensating carbs. The 2200cc engine is only now beginning to be sold for larger airframes. The reduction units differentiate the companies who make these conversions with some being belt driven systems, which have a better reputation so far, and gear reduction systems.

On my second objective of cost, the arithmetic is simple. The two stroke overhaul at 300 hours costs about \$2000 versus about \$2000 at 1500 hours for the Suburu. In between overhauls, the two stroke is an endless maintenance nuisance with expensive parts requiring finicky attention to detail. Gas consumption is less with a four stroke, replacement parts come from your local auto parts store, and overhauls can be performed by any one of a large number of experienced auto mechanics.

The maintenance schedule for the Stratus Suburu consists of oil changes at 50 hours, spark plugs at (continued on page 4)



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(Suburu - continued from page 3)

200 hours, new belts, rotary cap, and re-packing of bearings at 300 hours, and replacement of bearings at 1500 hours.

When buying a new aircraft, the difference between a Rotax 582 and Stratus Suburu is only \$1300 US, less than the cost of your first overhaul on a two stroke. When retrofitting an existing aircraft, the difference depends on what you can sell your two stroke engine for, and the current cost of a Suburu at \$6500 US. I found a strong demand for my firewall forward 582 in the US.

In the end, the operating costs for two strokes are much higher than the original difference in purchasing a Suburu. Whether you plan to keep the aircraft or not is immaterial, as the additional cost of the Suburu is a highly recoupable feature at resale time because the benefits pass on to the new owner. Meanwhile you enjoy the reliability and performance benefits of the four stroke.

Thirdly, performance is a very attractive benefit of the conversion. If the truth be known, this is the most emotionally exciting part of the deal. Going from 65 HP to 110 HP, I thought, would be interesting to experience in an Avid. As it turned out, I wasn't disappointed.

So overall, with solid reliability, minuscule operating costs, wild performance, and a small difference in cost, why would I not want to do this?

Both the deal to swap engines and the



Stratus Suburu "out of the box"

installation itself came together flawlessly. The key to success was that both Avid Aircraft Inc. and Stratus Inc. had worked together in building a complete, well engineered, firewall forward package.

Stratus builds a reputable conversion which is beautifully married to the airframe by Avid. The engineering of the conversion is excellent, and the engine is a known quantity on an Avid given that the factory uses one as a demonstrator. Avid Aircraft put me in



Stratus Suburu mounted on Avid airframe.

touch with a buyer for my complete 582, firewall forward, and sold me a firewall forward package for the Suburu. Included in this package is a frame modification, new cowling, engine mounts, firewall, radiator and hoses, and all AN hardware required. Both of these companies continued to be great to deal with as I moved through the next phase of the project.

The installation took me 15 working days to complete and followed these steps:

1) Frame welding; The Suburu attaches to the mount system with 4 Lycoming mounts, and the mount system attaches to the airframe at 10 attach points via AN bolts. This engine is definitely going to take the aircraft with it. Four of the attach points were part of a minor airframe modification which was welded on by Wayne 'chaos' Winters who did an outstanding job. New flooring, paint, and re-positioned rudder pedals finished this first step.

2) A new firewall and some tailoring of the mounts then allowed the engine to be lifted into place with help from Graham '172' Millington and an unfortunate friend who was innocently passing by. The radiator fit very cleanly under the airframe in between the bottom strut connections which helps position this additional weight behind the CG.

3) Next, I rebuilt the panel to clean up some wiring and to accommodate new instruments. Out went the EGT and in came the oil temperature gauge. I also installed an electric fuel pump. Helping to figure out the wiring was master electrician Buzz 'rotor head' Mawdsley, along with Dan 'auto parts' Johnson who graciously checked out the overall operating health of the engine.

4) The cowling fit the airframe almost out of the box, with kind assistance from Kelly 'krazy' Kuzyk. The Stratus Suburu is to the inch the same length as a 582 or 912 which is very convenient when fitting the cowl. Overall the engine is remarkably compact with loads of room for good air circulation.

5) I next installed a forced air heater behind the panel and plumbed it into the engine's cooling system. This cost me over ten pounds forward of my CG but with plenty of hot water barely inches from my feet, I could not pass up the opportunity for this goodie.

6) Next, a new 2 blade Ivo Magnum prop came from Ted 'ace' Orlick. When

(continued on page 5)

(Suburu - continued from page 4)

When you first look at it, you realize that this is a propeller planning to go somewhere. This prop, in a six blade configuration, will support a 700HP engine according to the manufacturer and is currently undergoing FAA certification in the US.

7) Lastly, a good checkout by Wayne, Ted, Buss, Dan, and Chris 'rebel' Kirkman completed the installation. If you can get it past these guys, you can have confidence that its going to work well.

Once installed and double checked, the all important weight and balance phase came next. Before buying the Suburu, I had carefully calculated the expected weight and CG with numbers obtained from Reiner Hoffman, owner of Stratus. The actual numbers came in very close to those predicted which speaks well of Stratus.

The difference in wet weight between the 582 and Suburu was about 100 LBS. Goodies like the heater added another 20 LBS with the empty weight ending up at 675 LBS. The minimum flight weight, which includes pilot, 6 LBS of fuel, and 20 LBS of counterweight brought the weight to about 715 LBS. The counterweight placed the CG an acceptable 1.2" behind the forward CG limit. Come spring I'll consider moving the 13 LB battery into the tail thereby reducing the counterweight to 10 LBS. Full fuel, which for me is 28 gallons US, brings the weight up to about 1000 LBS, and the addition of one passenger comes to 1170 LBS which is about the gross weight limit of this aircraft.

Next on the list were the ground tests

which included both static tests and runway tests. Static tests were used to set my prop pitch which controls the maximum RPM of the engine (5400 RPM), and to confirm the operating temperatures under full load. It was also used to see if the bigger engine could pull the bumper off my car.

The effect of a heavier engine is, obviously, to make the aircraft nose heavy. This could be a problem on final approach in a power off landing, leading to potential loss of elevator authority and nasty things happening. Runway tests confirmed that I had correctly compensated for the forward CG and had sufficient elevator authority at stall speeds. This was the only nerve racking part of the test phase. With 350 glider landings behind me, I can handle a forced landing in the event of an engine failure, but it's another thing all together to land an aircraft out of its CG limits.

Finally, with the tests finished, I sneaked out onto the runway early one morning, made an offering to the Gods, and took off. With full throttle, the tail popped up into the air and I was hurtled down the runway behind a deep throated roar instead of the wining shrill that I was used to.

I lifted off and quickly crossed the point at which I knew I could ditch the plane straight ahead into the adjoining field upon failure. I then crossed the second point where I could afford a 90 degree turn to land further out. I crossed the third point where I could afford a 180 degree turn back to the runway, and then promptly blasted up to circuit height without so much as a hiccup.

I was taken back by how differently the Avid felt from before. It felt more stable

from the additional weight, but there seemed to be something more to it than that. I tested the flight authority through various turns, established the new stall speed, and otherwise made the usual nuisance of myself flying around the neighborhood.

Landing with flaps down put the aircraft solidly on the ground without any floating. If it all sounds uneventful, you're right, and that's just the way you want it on this kind of flight.

Looking back now at my original objectives, the reliability of the four stroke Suburu is well known, and the Stratus reduction system has a solid reputation. Costs have been dramatically reduced by virtue of the fact that TBO is now further away than I can think about. Fuel consumption is supposed to be 3 GPH at cruise but I have yet to measure it. Performance-wise, the initial solo numbers are: climb 1400 fpm at 65 mph, cruise of 100 mph at 4200 rpm or 130 mph at 4900 rpm (better gas consumption & more comfortable at 100 mph), stall is 10 mph higher at 42 mph, and the engine temperatures are constant, on the cool side. With tuning of the prop I should be able to further improve the performance numbers.

Overall, the increasing use of Suburu engines creates important new opportunities for our aircraft in the areas of reliability, cost, and performance. For the first time, this engine can possibly match the reliability and performance of small certified aircraft, at a dramatically lower cost.

Suburu equipped aircraft fit neatly in between very light aircraft which use 447 and 503 engines, and the larger certified engines in the 145+ HP range. The Suburu competes directly against the 618, 912, and 914, which is a threat for Rotax. Many welcome this competition.

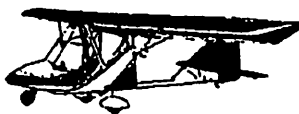
In looking at our own club, the latest arrivals are all of more traditional design (Norseman & Fishers), with four other aircraft being outfitted with four stroke engines, Avid & Pelican with Suburus, Rebels with 912s.

Change in our sport is being driven by the bottom, not the top. Innovation is not coming from new \$100,000+ Cessna trikes but rather from both the kit plane industry and 'sport' pilots who are constantly experimenting with new airframes and engines. These changes continue to be positive for us and it will be interesting to see what we look like in a few years from now.



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A Winter Flight

by Kelly Kuzyk

The morning of December 5th was clear but cold. The forecasters were saying that minus 30 degree temperatures were just around the corner, and I realized that this would be the last good day of flying for some time. That morning it was about minus 18, the sky was blue and the winds light.

I arrived at Indus and quickly pre-flighted my Challenger. Once done I started up my trusty 447 and let it warm the cockpit prior to me getting in (I've ducted warm air from the engine fan for crew comfort).

The snow was a little deep so it took almost 5000 Rpm just to taxi to the runway. Once there, I knew a soft field technique would be required as the snow on the runway was wheel deep and a little crusty.

After completing my CIGAR checklist (Controls - full movement), Instruments (set altimeter/cockpit CHT), Gas (lots), Avionics (radio), and Run-up) I was ready to go. Holding the stick all the way back I went full throttle and waddled slowly down the runway. Once the nose wheel lifted the Challenger accelerated quickly, and at about 35 mph the wheels broke from the ground. Once off, I pushed the nose over to gain airspeed, and then up we went like an elevator (I just love these cold day take-offs).

Since it had been several weeks since I'd last flown, I decided to stay local and practice steep turns and slow flight. It's always a good idea to have extra height doing turns while in slow flight, so I headed south and climbed up to what I felt was safe for my

exercises.

Turns in slow flight can be a very challenging and humbling experience, especially in an aircraft that has a lot of adverse yaw (as my aircraft does with its full span ailerons). You have to really concentrate on what you're doing, or you can get uncoordinated and start to lose airspeed very quickly, which in a turn can lead to a stall/spin situation. It can be easy to do with a little practice, lead with rudder as you bank into the turn, and then occasionally glance at the ball (or in my case yaw string) to stay coordinated. The real trick is to do all that, complete the turn and not lose airspeed or altitude.

After about 30 minutes of that practice (more work than fun), I headed off towards Strathmore to do some sight seeing. The air was smooth as silk and the visibility was unlimited. It's amazing how a little snow can change the picture of the ground. Familiar features are harder to pick out, and you have to be more vigilant in your navigation.

After tooling around for a bit, I headed back to Indus and cut across mid-field above circuit height. Everything looked very quiet, as I checked out the wind sock I could see that there were no other cars parked around the hangar's but mine.

I completed my SWAT pre-landing checklist (Seatbelt-tight, Wind (direction/speed), Airspeed (approach speed determined by wind conditions etc.), and Traffic (advisory call/look out) and joined downwind. At this point in the flight I really miss my heater; the second I throttle back to descend the hot air stops blowing, and at -18 it gets cold in the cockpit instantly. I should mention that at

climb rpm it gets a little warm, but at cruise the temperature is just comfortable.

Moments later I landed, taxied back (high rpm again) and shut down. Now the real fun starts, putting the aircraft away in cold weather with quickly numbing fingers. A heated hangar sure would be nice.

I am not a big fan of going out and flying around without a destination. I normally like to go somewhere and land. To me that's what flying is all about, going places and meeting different people. However, this day's flying was good practice.

I feel it's good to go out and occasionally refresh my memory on certain procedures, be it precautionary landings, forced approaches, slow flight, or steep turns. As an article in a Flying Magazine once stated "a flying licence is a licence to learn." We also had a saying in the army: "In order to succeed in your mission, you must utilize the 6 P's to success", which are Prior Planning and Preparation Prevents Poor Performance.

Good flying to all, take care.

Calling All Air-Heads

Answers

1. The Vigilante, a carrier-based bomber used in Vietnam, ejected its bombs from the rear of an internal weapons bay placed between the engines.
2. They're called anti-torque pedals, and they control the helicopter's yaw.
3. The Sylvaire Bushmaster, based in Sylvan Lake, Alberta in the mid 80's.
4. VFR navigation chart, VHF omnidirectional range, instrument landing system, microwave landing system, and non-directional beacon. All are aircraft navigation aids.
5. The Twin Otter. Made by DeHavilland, which is 68 years old.



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Around The Patch

by Stu Simpson

The Deadrock Range Adventure, Part 2

Ed Tinker checked his map, checked the terrain immediately ahead, and checked the map again. He corrected a bit to the right to get properly lined-up for his first leg.

He and three other ultralight pilots were in the air at the foot of the Deadrock Mountains. They were searching, hoping to find an eight year old girl missing from a campground several hours before.

Darren Kirk's voice suddenly filled his ears, asking the flyers to check in. Firefly Two, Al Loomis in his big Norseman, complied. Firefly Three was Dennis Moe in a Super Koala, and Tinker was Four. Each checked in with Kirk, who was high above, acting as a communications relay to the Search Base

"Roger, fellas" Kirk said, "Firefly One copies all. Good luck."

Tinker made one last check that he was lined up on course. He trimmed the Himax level at 500' above the terrain, and began looking intently out the left side of the airplane.

If the ultralight jockies had any illusions that an air-search would be easy, those thoughts were quickly and savagely dispelled by the time each had finished searching his first mile-wide strip of territory. Loomis and Moe each learned just how tough it was to concentrate on visually searching every square yard of territory, all the while stealing fast glances at the panel to make sure their planes remained properly positioned and in good health. Even Tinker, with his prior experience, was finding the flight a tough one.

The first hour passed slowly, each pilot searching hard, always concentrating, hoping to catch a glimpse of anything that would lead them to the missing girl. Tinker was into his fourth mile-wide strip when the radio came to life.

"Search Base," Tinker heard Kirk say, "Firefly One. I read you five by five. Go ahead."

Then there was several seconds of light

Calgary Ultralight Flying Club

Balance Sheet As At December 31, 1995

ASSETS:	
Bank Balance (total assets)	\$3116.94
FUND BALANCE:	
Opening Balance January 1, 1995	1613.37
Excess of Receipts over Disbursements	<u>1503.57</u>
Closing Balance December 31, 1995	<u>\$3116.94</u>

Statement of Receipts and Disbursements For Year Ended December 31, 1995

RECEIPTS:	
Membership Dues ('95 & '96)	\$2130.00
Raffle Receipts	623.65
Skywriter Ads	200.00
Silent Auction	188.00
Donations & Bank Interest	152.49
Cap & Crest Sales	<u>75.00</u>
Total Receipts	\$3369.14
DISBURSEMENTS:	
Skywriter Printing & Postage	\$857.23
RCAF Association (rent)	694.00
Fun-fly (awards & food)	208.37
New Years Party (food)	30.00
Door Prizes (raffles)	65.36
Alberta Registry & Bank Charges	<u>10.61</u>
Total Disbursements	\$1865.57
Excess of Receipts over Disbursements	<u>\$1503.57</u>

Prepared by Gord Tebbutt

static in Tinker's ears. The three search planes couldn't hear the base due to a combination of their low altitude and a high ridge-line between them and the base. That's why Kirk was perched two thousand feet higher in his Renegade.

"Roger base, I'll pass that along," Kirk said. "Firefly Four, this is One. Search Base advises that some of the ground-pounders have located a child's bootprints in the snow in your block, about four miles west of the campground and a mile north.

Tinker's pulse quickened as a blast of adrenaline - and hope - fired through him. He wondered how old the prints were, or if it was even possible to tell.

Then he was on them; some searchers walking near a clearly visible trail of

footprints that led roughly west through a clearing.

"Roger One," Tinker responded. "I'm directly over them. Pass on to Base that the prints continue west from where the searchers are right now. They go into the bushes two hundred yards west of their position. I'm going to try and follow the prints from up here to see where they lead."

Kirk acknowledged the message and relayed it to the Base, knowing that this was a good clue.

Tinker broke hard right, adding power and wrenching the Himax into a tight turn. He located the prints once more, leading across the clearing to the brush. He throttled back again when he was over the bushes, trying hard to keep the prints in sight.

(continued on page 8)

(Deadrock - continued from page 7)

A short distance later, the prints broke into another clearing. Here, Tinker saw other tracks in the snow, much smaller ones, obviously made by animals. But he was far too high to even guess what kind of creatures they'd belong to. Then a sudden chill swept over him as recalled Kirk's warning about rogue wolves.

All the tracks led into a small wooded area on the west side of the clearing. Tinker's heart was pounding as he crossed over the woods.

A flash of movement, a shape that didn't fit, caught his eye. He raked the Max into tight left turn, adding power to avoid a stall. He stared intently downward trying to spot the odd shape.

There! Just behind that big snag!

Tinker nearly burst out laughing as he suddenly realized he'd found a cow. All those tracks must have been made by cattle, he thought. The relief washed over him, and he was about to scold himself for letting his imagination run wild, when he saw the blood.

As the Himax continued its turn, Tinker spied the mangled heap of a calf's carcass on the ground next to the cow. Finding little Tamara suddenly took on a new, and much more immediate urgency.

Tinker had lost the footprints in the woods so he decided to keep looking in the last direction they headed. Luckily, the grove of trees quickly thinned and Tinker was able to pick up the trail again. But other tracks were still following the human ones. After seeing the dead calf, Tinker now had to assume the worst, that someone, likely Tamara, was being tracked by wolves.

He radioed the events of the last few minutes to Kirk, adding that he strongly suspected the presence of wolves in the area.

Something was moving on the ground ahead, shadowy figures in the brush less than a quarter-mile away. Tinker's heart raced as he drew closer to them. Within seconds he realized he'd found the pack of wolves.

But the wolves, sauntering slowly after their recent kill, hadn't reached Tamara. Her footprints, they must be hers, he thought, still travelled beyond where the wolves were located. There's

still a chance then, Tinker realized.

"Firefly Two and Three, this is Four," he radioed. "Get over to where I am, guys. I've spotted a wolfpack following that trail of bootprints. I haven't found the girl yet, but I'll bet she's close. Firefly One, can you relay to Base and have them start ground units this way? I think there's a road northwest of my position they can use to access the area."

"One copies," Kirk said tersely. "I have a visual on you, and confirm the road at your twelve o'clock for one mile." Loomis and Moe also confirmed they were on the way.

Tinker, about half a mile past the wolves and down to 200 feet, was still following Tamara's tracks. Half a mile later, they again disappeared into a stand of evergreens. Tinker swore to himself, as much from tension as from the frustration of having lost the trail again.

He darted out over the other side of the stand, expecting to see Tamara's footprints continuing on. But they were gone!

Frantic, Tinker turned back toward the trees. Was she in that grove? Had she changed direction? He levelled out and pulled the throttle back as far as he dared. His eyes strained as he furiously searched the woods, checking for anything that might signal the girl's presence.

Each tension-filled second passed like an hour for Tinker as the Himax began tracing a slowly widening circle. By reflex, his eyes suddenly focused on a splotch of red near the tree-line, right where he'd expected the tracks to reappear a few moments ago.

The splotch became a red jacket, with arms and blonde hair. It was her! She was moving, was still alive. And looking right at Tinker, her face pleading for his help.

"Firefly One, this is Four," Tinker said excitedly. "I've found her Darren, and she's definitely alive. She's right below where I'm circling now. Do you have a visual on me?"

"Roger that," said Kirk. "I'll direct ground units there."

"Tell 'em to make it quick. Those wolves are less than a mile away." We'll get you out of there sweetheart, Tinker said to himself.

Seconds later Kirk relayed that ground support was still at least fifteen

minutes out. Tinker, still circling over Tamara, thought for a second then made a decision.

"Darren, I'm going to land on the road and make my way to her on foot. I might be able to get her back to the plane. At least she'd be safer in there."

Kirk was silent for a few seconds. Then, "Ya, I guess there's not much choice. Be sure and take your radio with you."

"Roger, will do," said Tinker. He turned the Himax toward the road, which ran roughly northeast to southwest, and picked the nearest spot to the girl's location. He entered a left-hand downwind south of the road, then made a gentle curving turn to a short final. It would be tight, he saw. The road wasn't very wide and evergreens lined either side of it.

Tinker concentrated on keeping the little tail-dragger straight as its wheels settled on the loose gravel. The plane slowed and Tinker unhooked his harness. Upon stopping, he hopped out and ran to the tail to swing it around in the confines of the road. Then he clambered in again and backtracked to where he'd touched down, removing his helmet on the way. He disconnected his radio, re-attached its rubber coated antenna, then stuffed the unit into his leather flying jacket. He hit the kill switch as he scrambled out, and ran off into the woods.

Tree branches clawed at his arms and face as Tinker hurled himself through the underbrush. Gasping, he paused at a point where the foliage thinned a little. A Rotax buzzed somewhere nearby. Over his ragged breath and pounding heart, he heard the radio clamoring for his attention. He pulled it from his jacket and continued on.

"Firefly Four, this is Two. Do you read?" Loomis called.

"I read you Al," Tinker panted. "That you up there?"

"Roger that. Listen, angle your course to your ten o'clock. You're about eighty meters from a clearing. Once you get there, you should be able to see the girl on the other side."

"Okay, thanks," Tinker rasped. He turned slightly left and saw the clearing through the brush ahead. A few moments later he was free of the woods and sprinting toward Tamara in the distance.

(continued on page 9)

(Deadrock - continued from page 8)

She rose from her seat on a fallen log when he reached her. Her hair was mussed and her face sported a few scrapes. A scared little girl threw her arms around Tinker's waist and hugged him.

"Can you help me find my mom and dad?" she sobbed.

"Yes Tamara. My name's Ed," Tinker said, still breathing hard, "I'm going to take you home now, but we have to hurry. Can you run really fast?"

Tamara simply nodded.

"Good. Let's go." Holding hands, they began trotting back the way Tinker had come. But Tamara was tired and it was only a few steps before she began stumbling. As they slowed to get better footing, Tinker's radio again beckoned him. He answered it.

"Get out of there as fast as you can, Tink," said Loomis, clearly alarmed. "Those wolves are getting closer all the time."

"Roger," Tinker replied. He tucked the radio away and scooped the little girl into his arms. He thought he heard howls and yips in the distance behind him.

Then he tripped. He rolled as he fell, landing on his back so he wouldn't crush Tamara. But the fall winded him. He sat up and used several precious seconds trying to get his breath again. Tamara tugged at his sleeve.

"We have to hurry, Ed," she said. "Let's go see my mom."

Tinker staggered to his feet, picked her up and set off again.

It took a few very long minutes to make it back to the road. Sweating profusely, he set Tamara down, simply unable to carry her any more. He pointed to his plane, and told her to run to it.

The sounds of the wolves were louder now. The radio told him so too, but he had neither the wind, nor the time, to acknowledge.

They reached the plane together. Tinker yanked open the door and lifted Tamara inside. He told her not to touch anything and flicked the kill switch 'ON'. Just then, the wolves reached the road.

Tinker closed the door, making doubly

sure the latch was hooked. As he ran to the front of plane he saw the wolves less than two hundred yards away, running right at him.

Frantically, he swung the prop, hoping that engine noise might dissuade his pursuers.

Nothing caught. I'm definitely asking for electric start this Christmas, he thought as he repositioned one of the blades.

He swung the fan again. Still nothing. The wolves were nearly on him. This better work, thought Tinker. He tried again, harder, one last time. The extra effort threw him off balance and he crashed face-first to the gravel.

But he heard the Rotax scream, then quickly fade away. His heart sank, but he dared to look up, expecting to be mauled to death at any second.

The wolves were nowhere to be seen. But Dennis Moe's plane was there, arcing away in a graceful climbing turn.

Tinker suddenly realized the engine noise he'd heard had been Moe's plane buzzing the wolves, scattering them just before they attacked. "It sure took you long enough," he muttered, smiling.

Moe's tactic had worked, but for how long? Tinker pulled out the radio.

"Dennis, it's Tink. You better get down here and land. I'm not sure if those wolves will be back, so we'll put Tamara in your plane and you can fly her to Kirk's." Loomis radioed that he'd fly top cover, keeping an eye open for the wolves.

Moe agreed to the plan and quickly set down on the road. He kept the engine running as Tinker lifted and strapped Tamara into the right seat.

The Himax started on the next pull, and Tinker soon followed the Super Koala into the air. He smiled to himself, knowing Tamara Sutton was finally on the way to see her mom and dad.

News... ...from the Blue

Which Way To Frankfurt, Please?

Earlier this year the crew of a Northwest Airlines DC-10 enroute to Frankfurt inadvertently landed at Brussels, 185 miles short of Frankfurt. There was no emergency, no hijacking, nor any mechanical difficulty. The crew simply got the wrong airport. Ironically, the passengers watched the entire fiasco on the cabin's moving map display. It took some of them 9 hours to make another connection to Frankfurt. The FAA has launched an enquiry and the flight crew has been suspended, which ought to give them time to come up with an explanation.

Will That Be Cash or Credit Card?

Some airlines are apparently not extended credit when it comes time to ante up for fuel at certain airports. This forces the pilot to fork over his own plastic to cover the cost of fuelling, which could be as high as \$45 000 Cdn for a Boeing 747. By the way, the Diners Club card is preferred by aircrew because it has no pre-set spending limit. Puts a new spin on how quickly one is reimbursed for expenses, doesn't it?

Cheese It, It's Da Cops

A UK police constable recently had a bicycle thief pedal off when the copper tried to latch on to him. So he called for some air support, which arrived shortly in the form of a Britten-Norman Islander. The bike-napper was captured 15 minutes later. The cost of the bike? About \$50. The cost of the Islander? About \$350 per hour, before crew costs.

Mistaken Identity

Seattle Coast Guard units recently responded to a call of a float plane making a smooth landing on water, then quickly sinking. It turns out the plane was a Cessna 177 Cardinal. With no floats. The pilot made an emergency landing in the water, after dark, 150 feet from shore, and narrowly missed a temporary dock. All four survivors were rescued by staff from a nearby sewage treatment plant.

News... ...from the Blue

Second Chantz Packs It In

Second Chantz, makers of ballistic parachute systems for sport aircraft, has decided to close up shop. They're not accepting new orders but will perform 4-year re-packs until January 31st. It was originally thought that BRS would then take over re-packs, but they say they'll only do conversions to their system since some of the components are similar. Second Chantz officials quote the declining fortunes of the sport plane industry, frivolous liability suits, and other reasons for the closure.

Neat Meeting Spot

It's come to our attention that some local aviation groups hold at least one monthly meeting per year at the Calgary Aerospace Museum. Sounds like fun, so we'll be looking into this. Skywriter will keep you informed in future issues.

Projects Update

Bernie Kespe is moving right along with his *Renegade Spirit*. He's very close to covering the fuselage and tail (the wings are already covered) and then it's on to painting. Kespe is thinking

about a mid-30's US Navy paint scheme. Wilf Stark has finished covering his Fisher FP-303 and is currently finalizing the motor mount, then he'll be painting. Stark also owns a Super Koala that'll be flying soon. Gerry Moore has installed a Subaru engine in his Avid Flyer and is very pleased with the results. He reports that both cruise and climb have increased dramatically.

In other news, Don Usher, a recent addition to the CUFC, reports that he is now underway building his TEAM miniMAX. He's building the fuselage and says that things are going together very nicely. Usher plans to put a Rotax 447 in his plane. And Fred Wright is busy making wooden floats for the Himax he and Julio Castro have under construction. Brian Vasseur is finishing up the fuse' on his miniMAX. He's sat in it and reports it to be a tight fit. Carl Forman bought the TEAM kit, which is on the way. And Bruce Plepgrass also has a set of 'Max plans. At last count that makes a total of 5 Max's either planned or under construction by CUFC members, with 3 more of them flying.

Another Easy-Flyer

Wayne Winters, designer of the Merlin Easy-Flyer, has started work on a single seat version of that aircraft. He says that while the plane will be outwardly similar to the current 2-seater, the wing will be completely redesigned with a 5" tubular aluminum spar (ala Kolb wings), foam ribs, and

Junkers style ailerons. Winters predicts 55-60 mph for cruise speed, a Vne of approximately 75 mph, and a stall near 30 mph, with a Rotax 447. He hopes to sell kits for \$12-13,000 Cdn complete with engine, prop and a couple of instruments.

New In The Mail Room

Starting in February the CUFC will have someone new mailing out the club newsletters to all who can't make the monthly meetings. Tina Simpson, wife of member Stu Simpson, will take over the mail room chores from Bernie and Ida Kespe, who've been doing the job for several years. Our deepest thanks go to the Kespes for the hundreds of hours of work they've put in over the years. If it weren't for them many of us wouldn't have gotten our newsletters at all. Thanks also to Tina for volunteering to take on the job.

Tea & Coffee On Ice

CUFC members Andy Gustafsson and Kelly Kuzyk, both Challenger jockies, have discovered a new fly-in-and-have-a-cup-of-coffee spot. In late December, they landed on the ice at Chestermere Lake and taxied to the Chestermere Inn, at the northeast corner of the lake. The Inn staff were thrilled to have them, and Kuzyk and Gustafsson were thrilled to be there. Thanks for the tip guys.

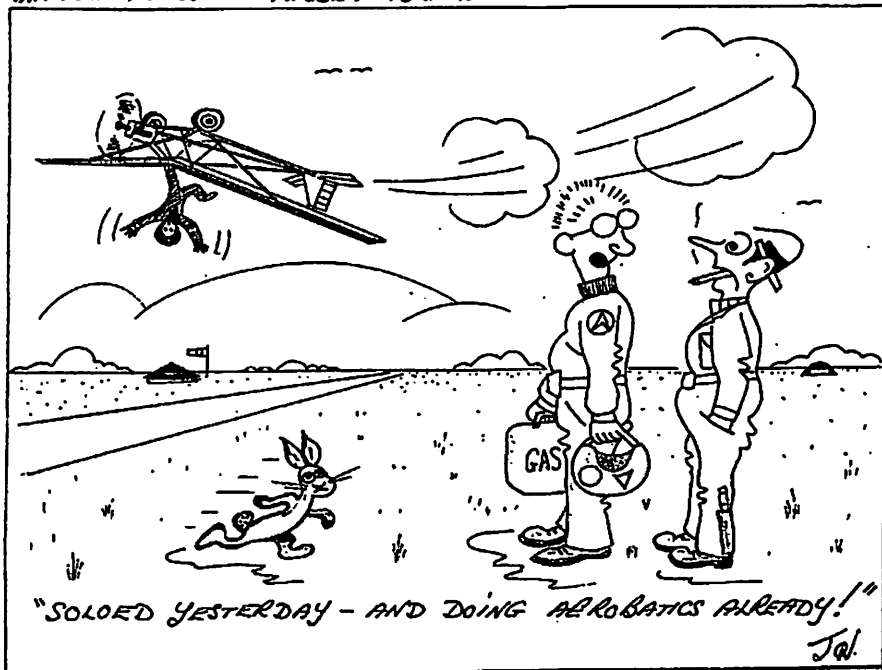
A Growth Industry

The kitplane industry in Canada is growing and has been for several years. For example, in 1989 Canadian Aviation magazine listed 36 kitplanes (including amateur-builts and ultralights) being manufactured in this country by 18 different suppliers. A tally of 1995 figures from the annual KITPLANES magazine directory shows roughly the same number of manufacturers at 17. But the total number of aircraft designs jumps to 56. This figure includes ultralights, homebuilts, and gyros. In terms of the number of designs for sale, Falconar Avia in Edmonton offers the most (11). Zenair is next (7), followed by Quebec's Gene Littner (6), and Ultra-Avia and Murphy (5 each).

Czech It Out

A Canadian homebuilt airplane design is now in factory production in the Czech Republic. The Zenair CH701 is being built on an assembly line in Prague and Zenair predicts a strong demand for the design throughout Europe.

MISADVENTURES OF RIGGER HOKRUK.



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