



Skywriter

Monthly Newsletter of the Calgary Ultralight Flying Club

June 1992

View From Above

by Paul Hemingson



The guest speaker at the May 6, 1992 CUFC Meeting was Wayne Woloshyn of Transport Canada. Wayne is the RASO out of the TC Edmonton Office. Wayne gave us an entertaining and informative safety message. Using a series of slides of air accidents and incidents he talked about the role that pilot attitude and decision making played. His candid comments clearly illustrated that we can all succumb to the state of becoming expert 'wingnuts' given the chance. Sometimes we get away with our machinations, and sometimes "Stuff Happens". In the final analysis though, it is clear that the pilot determines what 'stuff happens.'

We also discussed the proposed regulations at the meeting. The issue of concern to most of us was the shape of the future for 2 place non-AULA type machines. This is the time to get our concerns on the table, before it is too late. As it stands now, the current proposal does not allow for 2 place non-AULA machines with the I-xxx registration after January 1, 1993. Only those 2-place machines that meet the TP10141 will be allowed, and those will be issued a F-xxx or G-xxx registration. Existing 2 place UL on the register will be allowed to continue to operate under the I-xxx registration as UL machines. I have sent a letter to TC advising them of our concern and asked that they consider continuing the 2- place UL (ie. I-xxx) for the following reasons:

The TP10141 is quite stringent (for L machines), and those machines whose registrations are subsequently pulled (when its found out they don't really meet the TP) need some category

within which to re-register.

2. Many current manufacturers do not build machines that meet the TP as it now exists, and are unlikely to redesign to meet the TP, given the relatively small Canadian market and limited sales volume.

3. Current owners of 2-place ultralights of the non-AULA category desire that manufacturers continue to produce their relatively lower cost machines. This would help the UL industry to continue to grow as well as encourage existing manufacturers to continue to produce parts.

4. Many manufacturers may not choose to do the engineering to assure that their aircraft meet the TP since it will significantly increase the cost of producing their machines and add to their overhead in administering the program.

5. Two place machines have been used in Canada for several years in the training and owner use category mode and no significant safety hazard exists.

6. Many owners of 2-place machines choose them for other than passenger carrying. These reasons include the increased wing loading for handling turbulence, the longer range/endurance, the higher performance and ability to penetrate winds, and the ability to carry more fuel/weight.

7. The formation of the Central Technical Committee to screen machines for meeting the TP may become a costly and cumbersome

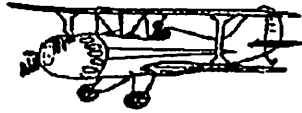
procedure. It is likely to only be as effective as the volunteer support it gets and no guarantees that volunteer efforts are sustainable. Perhaps the onus should be put on the manufacturers who truly want to produce an AULA to supply the appropriate documentation to TC.

Accordingly, the proposal I sent to TC for consideration was: To ensure the continued growth and use of the UL industry in Canada and to meet the concerns of Ultralight Pilots in Canada, it is proposed that two place UL machines using the I-xxx registration should be continued. The maximum weight would be limited to the lesser of the manufacturers recommended gross or 1058 pounds. No passenger carrying would be allowed, with the exception that it is allowed for training. Perhaps some other weight limitation is workable. For example 500 pounds for an empty two place machine. In either case, passenger carrying would only be allowed in the training mode. I believe that this proposal best fits what is needed and it workable given the spirit of self regulation in the UL community. I don't think the taxpayer or TC wants to become embroiled in a cumbersome and expensive UL regulation. I have no reservations that the AULA category is a good one, but better fits the type of design, use and performance criteria that the RAA and EAA are pushing for. To a large extent it is closer to the Recreational or Primary Aircraft Category that is being advanced in the USA.

I contacted the organizers of the Red Deer International Airshow (August 1 & 2) and our Club is welcome to participate in the Fly-by and static program again this year. This 9th annual airshow promises to be as good. Right now, the first order of business is to get our own act together. The organizers would like a
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One Pilot's Opinion

by Bob Kirkby



Safety Bulletin Board

As promised last month, I have extracted some safety reports from the Transport Canada Ultralight and Homebuilt safety bulletin board. This month I will reproduce all reports on failures of Rotax engines. I am reproducing them as they appear without analysis. Keep in mind that these have been submitted voluntarily by individual pilots like ourselves who wish to convey their experience to others. They come from Canada and the US.

April 1, 1991
Rotax 582

Most engines do not contain a device to regulate the coolant temperature, such as a thermostat or radiator shutters. If the engine is operated at low RPM for an extended period, the coolant temperature will become excessively low. If the RPM is then suddenly increased (ie take-off), the increased flow of coolant can cause rapid cooling of the cylinders, leading to thermal seizure. This can occur even though EGT or cylinder head temperature may be reading normal prior to take-off. The manufacturer has now introduced an engine coolant thermostat to solve this problem. At least two crashes are believed to have been caused by this phenomenon.

November 16, 1990
Rotax 532 on Avidflyer

Engine failed during cruise flight. Debris from bearing cage was ingested into the combustion chamber and caused loss of compression. Suggest using cageless bearings as a fix.

April 26, 1990
Rotax 503 on Challenger 2

Crankshaft broke in the center section. Break was caused by PTO end bearing failure. Failure of bearing was caused by a bolt that had previously broken on belt drive adapter where it bolted to the motor, causing unequal pressure on the PTO bearings, causing stress and overheating of the bearings.

April 15, 1991

Rotax 532 on Fisher Classic

Engine would run rough after 1 to 3 minutes of full power operation. Press of condenser to housing was loose and the condenser.

September 14, 1991
Rotax 277 on Falcon

After takeoff a noticeable decrease in engine RPM occurred. Upon landing the spark plug was removed and examined. Plug seemed to have been struck by an object as the gap was closed. Small melted balls of steel were found wedged in the plug. Upon teardown of the engine, it was found the caged needle bearing had broken up damaging cylinder and piston. Rotax has recommended that the caged type needle bearing be replaced on the larger engines with the cageless type. Recommend that owners of 277's inspect and replace. Check with Rotax mechanic/dealer.

November 11, 1991
Rotax 502 on Twinstar MKII

The wrist pin on the PTO side wore down, possibly due to a seized needle bearing. The piston developed excessive play and eventually the skirt contacted the cylinder wall and broke off. The cylinder scored, lost compression and the spark plug gap was closed by the debris. Engine lost power and an uneventful landing made in field.

November 18, 1991
Rotax 585 on Rans S-10

The engine began to lose power during flight and to vibrate. An emergency landing was made safely. Inspection revealed that there was a crankshaft rod bearing failure which caused the power loss. Total time on engine was 155 hours.

November 30, 1991
Rotax ??? on Air Command

Starter rope found to be extended after flight. Found cause to be a broken recoil spring. Believe the cause of broken springs to be a "bottoming" of the rope due to shorter than standard rope being installed. Ropes have come out of housing in flight and have been struck by the propeller. Suggest using proper rope length, Air Command P/N 6288020 and as a safety measure secure pull start handle to mast with velcro strap found at marine and sporting goods stores. There were four additional similar reports submitted.

Well, there you have it. That was the total group of reports on Rotax engines. One can't draw too many conclusions without knowing the maintenance history of some of these engines or whether the proper fuel/oil

mixtures were used. The multiple comments on these "caged needle bearings" merits some thought, and velcroing your pull-start handle sounds like a good idea if you fly a pusher. Next month I'll pull off some more reports for you.

June 14 Flyin

Don't forget the flyin at my place on June 14 am. This is the same day as the Beiseker flyin breakfast, so plan on dropping by my place for some donuts or muffins, then go on to Beiseker for pancakes (or whatever). Or meet at my place and fly on to Beiseker as a group. Sounds like fun.

Remember, when you approach my field, stay away from the farms on the west side. The inhabitants are super-sensitive to low flying aircraft. Hope to see you on June 14.

Thought for the Month

Instead of waiting for your ship to come in, grab two oars and row out to meet it.



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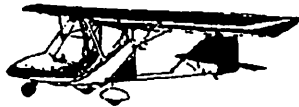
Skywriter is the official publication of the Calgary Ultralight Flying Club and is published 12 times per year. Opinions expressed by our writers are not necessarily those of the club. Articles and letters to the editor are very welcome from any readers. Address correspondence to: Bob Kirkby, RR 7, Calgary,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

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

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Calgary, Alberta

Around The Patch

by Stu Simpson



Wings of Silver

Wings of Silver is a video tape of the U.S. Air Force's frontline combat aircraft. It has footage of all the major types in use today, including 13 minutes on the F-117 Stealth fighter. It covers the F-4, F-15, F-16, A-10, A-7, C-141, B-2, and KC-10 tanker. The production is accompanied by a voice narration and a background music track.

This tape has a lot of positive attributes. It shows a very wide variety of aircraft, from heavy transport to super secret stealth planes. We see the different types both in the air and on the ground.

Wings of Silver also shows these combat planes on the weapons range at Nellis Air Force Base. We get to see them releasing bombs and firing their internal cannon at ground based targets.

Most interesting to me was to watch the incredible strain imposed on the aircraft as they pull off their bomb

runs. In some cases, you can actually see the wings bending with the G-forces as the pilot yanks back on the stick. Watching those sequences, you can just imagine what it feels like to have six or seven G's on you for several seconds.

This production also has lots of gun camera tapes. Here, we see what a fighter pilot sees, as he's seeing it. The gun camera views everything that is visible through the heads-up-display (HUD). If you think it's easy to pint the nose of one airplane at another that doesn't want to be pointed at, you'll change your mind after seeing these air combat sequences. These's certainly enough gun camera tape included to keep the dogfighting enthusiasts interested.

For those with an interest in the Stealth airplanes, you'll enjoy the 13 minutes of footage on the F-117 Stealth fighter. As you can see in this tape, the F-117 is very unorthodox airplane. It's sides are all angles and slab sides. The engines are hidden inside the fuselage and there appears

to be no exhaust nozzles. But the funny angles and flat sides serve to absorb radar waves or deflect them away from their source.

What ever weird science is involved, the F-117 is entrancing to watch as it dances around the clouds at sunset. This sequence is certainly a highlight of 'Wings of Silver.'

One thing this tape has that so many don't is good, close-up footage of USAF ground crews in action. It is very interesting to see the ordnance loading crews at work as they load bombs, guns, and missiles on to the aircraft. The detail in this area is superb and the camera crews are to be congratulated for the final product.

As much as I enjoyed 'Wings of Silver', its far from perfect.

For example, a good deal of the narration simply sounds too much like a Yankee propaganda film. There are some obviously staged crew briefings that are just laughable. These scenes should never have made the final cut.

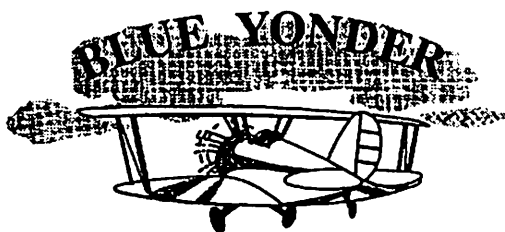
I also would have preferred to learn more about the airplanes. Details such as payload, range, and weapons capability would have made this production really stand out from the crowd.

Except for the ground crew sequences, the camera work is also rather uninspired. It seems the photographer merely set up at one spot on the ramp and managed to record the dozens of different airplanes that happened to be moving around him. Then, it appears, he went to another location off the side of the runway and shot the airplanes as they took-off or landed. There is far too much repetition of the take offs and landings. A few different shooting locations would have made a big difference and added a lot more quality to the production.

There are things you'll dislike about any video tape. But for about 17 bucks you can't complain too loudly, especially with a full hour of combat jets to keep you occupied.

The merit of 'Wings of Silver' lies in the wide variety of aircraft it covers. If you don't have too critical an eye, I think you'll enjoy this tape.

**Aim for perfection!
Half right is always
half wrong.**



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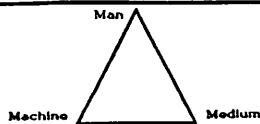
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Safety Corner

by Paul Hemingson



CONFIDENCE versus COCKINESS

There is a fine line between confidence and cockiness. Too much, or too little of each can lead to problems. Let me explain.

A confident pilot is one who knows himself and his machine. He/she knows their personal limits and the envelope of their machine. So does a cocky pilot, but there is a difference. The confident pilot knows what he doesn't know, but the cocky pilot knows everything.....or so it appears.

At the opposite end of the line is the unconfident pilot. This pilot is unsure of many things and has yet to gain enough experience to feel that he has control over himself and his machine. This is also an unsafe state of mind because the unsure pilot is not equipped to make the proper decisions at the proper time. Especially so if he finds himself in conditions that test his metal. Many times he may regress to a state of resignation when confronted with a situation beyond his level of expertise. For example, in a departure stall the unconfident pilot may continue to hold or pull backstick instinctively as a holdover from his ground-bound days where going down is compensated for by trying to go up. The cocky pilot is likely to make the right decision and get the stick ahead, while the confident pilot is unlikely to find himself in a departure stall condition because he maintained airspeed all along.

The different approaches to flying and the different attitudes are likely instilled at an early stage in the pilots training. A good instructor will recognize the attitude of each student's behavior and take the appropriate action to correct any deficiency. Some of us find ourselves oscillating between being unconfident to confident depending on circumstances. Whatever you do, try never to feel unconfident in your abilities or your machine's capabilities. It can be a dangerous and destructive attitude. Guard against becoming overconfident.....it is a fine line we navigate.

What does it take to turn out a confident pilot? One who is neither unconfident, nor overconfident. What factors are involved? I wondered about this and decided it's a complex situation. First of all, the student

brings to the table his previous attitudes towards risk taking and his own personality. Then various instructors handle their duties in various ways depending on their personality and insight. Some of the best instructors demonstrate the right mix of risk taking and conservatism, and impart their philosophy to their students. I don't know of any statistics in this area, but I wonder if some instructors have turned out a number of students who have less accidents and incidents than the general flying population. This is an area of research that should be investigated. Not to single out the bad ones or ones with poorer records, but to identify those instructors who consistently turn out good pilots. Then all we need to do is look at what they are doing right to get some insight into what the key elements are in the formative first few hours of the introduction to flight. What makes good pilots tick? How do they keep themselves out of trouble?

Before a major flight I find myself entertaining some oppressive thoughts about flying. Maybe this healthy, maybe it isn't. Nevertheless, my mind always seems to conjure up the worst case scenario. Flying is supposed to be fun. And I know I have looked forward to the flight. What is wrong with this picture? I begin to feel like an oxymoron. Can I do it? Will the wind pick up while I am gone? What will I do if it does? Can I find the airport I am setting out to find? Since I have never landed there, what is the surface condition and surrounding terrain? Are there any hidden hazards? It takes a conscious effort and some self-counseling to remind me that flying is fun. If it is a major long distance flight some of these questions haunt me consciously and unconsciously for days ahead. If it is a Saturday morning flight I find myself uptight for the minutes ahead of take-off and always seem to feel the need for that "nervous pee". Strangely enough, once I get under way the feeling of apprehension I had earlier disappears as the ground falls away on climb out. Enroute, if I encounter turbulence or some other unexpected weather phenomena I make the decision to maintain course or find a suitable spot to weather it out. Last year, on a long distance flight the weather got rough and after 2 hours of rodeo-ing around the skies I put into a strip and hitched a ride home. Sure it was inconvenient. I had

(View - continued from page 1)

variety of UL machine types, and I asked for the same billing as we had last year, where we were tied down near the flightline-showline. Accommodation will again be provided for the Saturday night, and hanger space overnight. At the June 3/92 CUFC meeting I will be collecting the names of those who want to participate and handing out Registration forms. I will also need your Pilots License number, Registration, machine type, and Insurance Policy number. Please get the registration forms to me by mail or hand delivery by June 12, 1992.

I have been in contact with the Canada 125 program and asked to be included as an event. I await their response. The event is an UL fly-in at my Priddis strip. All day, and into the evening. I will fire up the BBQ and you, and your family are welcome to arrive by whatever mode you desire. Let's celebrate our freedoms. I love this Country. I love Ultralights. And I love to share our passion. Bring some meat and a beverage and I will supply the rest of the fixins.

I noticed three ULs led by Gord Keegan in DYB overflying my strip on Sunday May 24. Don Rodgers and his brightly colored Chinook was close behind, and Stu Simpson was in the tailgun position. They came in from the West, and I suspect they were homebound after a flight to Banff. I look forward to their stories. Remember there is no formal July or August CUFC meeting, but we will continue to send out a newsletter, and several informal fly-ins are arranged. You can find the dates and places in the newsletter.

to get a friend to transport me home by car, and then return me to the strip on another milder day....but enough was enough. But most of the time, you can ride it out to get home....you have to judge your own limits and whether the weather is the same, or getting worse. When flying is not fun anymore, I quit.

In summary, the right attitude is needed. Easy for me to say. What is more critical is that you recognize when your attitude needs an adjustment. If your feeling unconfident because you're over your head do your best to maintain control over yourself and your machine until it is on the ground. Then on subsequent flights get your experience in small doses, gradually extending your skills until you can handle the conditions
(continued on page 5)

(Safety - continued from page 4)

you might encounter. The only way to get experience is to fly. We all go through this stage. I don't think we should worry too much about the oppressive thoughts that enter our heads. It is just common sense for a rational person to consider the risks of what they are about undertake. Satisfy yourself that the man, the machine and the medium are acceptable for you and go for it. If things change enroute think through your alternatives rationally. Find the balance between confidence and cockiness and.....have fun!

Coming Events

June 7 - Annual Aviation Extravaganza at Okotoks. Static displays & flight demonstrations, breakfast & lunch. Fly in or drive in. For info call Okotoks Flight Centre 938-5252.

June 14 - Ultralight fly-in brunch at Bob Kirkby's strip. Fly or drive. Bring a friend. 0800 to 1200 hrs. For info call 569-9541

June 14 - Beiseker airport 3rd annual fly-in breakfast. 0730 - 1130 hrs. Freq. 123.2. For info call Sandy 947-2516.

June 19-21 - RAA Western Convention at Josephburg airport near Edmonton.

June 24-26 - High River EFTS re-union and fly-in. CUFC is invited to fly in for hangar flying and to view displays.

July 1 - Canada Day fly-in at Paul Hemingson's strip in Priddis. An all-day event ending with a BBQ in the evening. Bring something for the BBQ and everything else will be supplied. For info call Paul 931-2363.

July 19 - Vulcan fly-in breakfast. 0800-1100 hrs.

July 25 - Nanton fly-in.

August 1-2 - Red Deer International Airshow. For info call info line 403-340-2333.

August 7-9 - Abbotsford International Airshow, BC. Info line 604-852-4600.

In our haste to deal with the things that are wrong, let us not upset the things that are right.

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