CALGARY ULTRALIGHT FLYING CLUB

Skywriter

Monthly Newsletter of the Calgary Ultralight Flying Club

December 2000

From The Cockpit

by Brian Vasseur

Well it's wintertime again. Fortunately it's also been election time again so we've had an abundance of warm air to make for a good flying season. I always remember taking lessons with Wayne in February and thinking it was warm. I guess you can ignore anything if you're having fun.

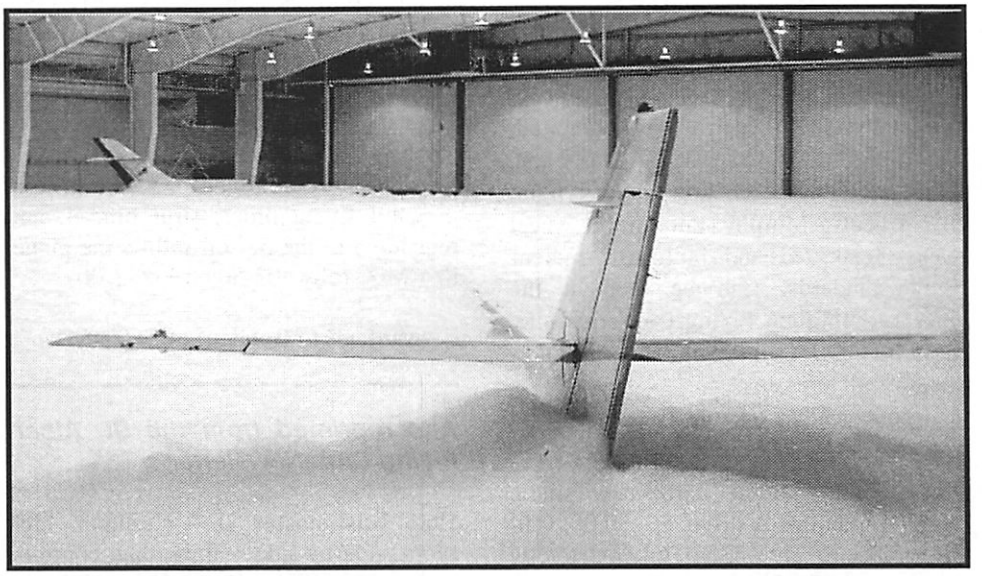
January is also election time for us. I'd really like to see some of you stand up and offer your name as candidates for the positions. The jobs aren't very time consuming, and getting new ideas into the club really helps with keeping us focused on what's important to the group. We also want to get as many members as possible to renew your membership so get your $20 into Bernie so you can vote.

In January we have our annual draw for the handheld radio. Tickets are $5 each or 3 for $10 so if you haven't got them yet then send in an extra $10 with your membership for your chance to own this radio.

Something else I really like about this time of year is the December Kitplanes. They annually publish all the available kit aircraft and it's better than a day at Toys R Us. I'm really keen on the ViperJet which is a fast turbine homebuilt 2 seater. I'm not sure how well it would do in the circuit at Indus but maybe I can work something out with Wayne.

In this article you'll see both the letter the club responded with to the passenger carrying regulations, and the response back from Karen Tarr. Karen's reply had a key point which read, "The recent request was to invite feedback solely on the skill demonstration for the passenger carrying rating, to ensure its appropriateness in the ultra-light aeroplane environment."

This is a little narrower scope than I realized at the last meeting. In respect to what was proposed for skill requirements we did agree that the proposed training was appropriate. In the short term I think some instructors will be unhappy because this will cost some of them more money, but in the long term the ultralight community will grow. ✈



NASA in it's continuing quest to find new safer ways of transportation, is investigating a new crash supression system for jet aircraft. The cost of providing airbags for every passenger is prohibitive, so they've taken a different approach to reduce impact damage to the aircraft itself. You can see in the picture below that the first test inside the hangar was a resounding success. This stage of the testing hasn't yet addressed the problem of how passengers will be able to exit the aircraft.

For Sale

VP1 Kit - partially complete. Most materials and hardware to finish. $2000 invested, $900 obo. Brian Vasseur 226-5281 (12/00)

Honcho Nomad - no engine, needs rebuild, with custom trailer. This is a high-wing, strut-braced motor glider, $2000. Call Russ White 250-353-2492. (12/00)

MiniMax - Rotax 447, GSC Ground adjustable prop, full panel, always hangared, only 115 hours since new. $8,500. OBO. Dale 293-3826. (12/99)

Trade - Western Star Dump Truck for single or 2-place ultralight. Will consider trades up or down from $14K. Call Russ at 250-353-2495 or leave msg at 2492. (11/00)

Parting out - Rans S12 Airaile parts and pieces with AULA registration. Call Russ at 250-353-2495 or leave msg at 2492. (11/00)

TEAM Himax - 1995, single-seat, high-wing tail-dragger (looks like a Cessna Bird Dog). 260 TTAF, 200 TTE, 52 HP Rotax 503DC, 2-blade GSC prop. Original builder/owner, always hangared, flown regularly. ASI, Alt., digital Tach, CHT, EGT, large cockpit, full skylight, 16" wheels, Murphy tail-wheel, wheel pants. Inspected and built to Amateur Built standards. Can be seen at the Calgary Ultralight Flying Club's website. $11,000 OBO. Call Stu at 255-6998, or e-mail for pictures at simpsont@cadvision.com (10/00)

Rotax 503 - single carb, new single ignition, requires A drive, $2750.00. Call Glen Munro 403-335-3764 or Paddy Munro 403-638-5067. (10/00)

Beaver RX550 - excellent condition, 400 hrs on air frame, 7 hrs on new Rotax 503, dual carb, single ignition, A drive, always hangared, $8500.00. Call Wayne Winters 403-936-5767. (10/00)

Hirth 2706 engine - 65HP, dual Bing 54 carbs, dual ignition, electric starter, 3.66 gearbox, 2 complete exhaust systems (1 side mount, 1 straight mount). Freshly broken in (6 hours) and ready to go! Very strong engine. Must sell, have purchased a new engine. Asking $4000 obo. Pictures available. Call 519-448-4816 or email at: tpage@sentex.ca (9/00)

Challenger II - 1989, Rotax 503 DCDI, DFP, Bat, ASI, VSI, ALT, CHT, Tach, radio, intercom, doors, cabin heat, brakes, skis, dust covers, always hangared, air frame painted and recovered (Stits) 1996, $19,000 Cdn. Fly away, phone 403-783-5153 Ponoka AB. E-mail: hammondv@home.com (9/00)

Murphy Renegade Spirit - 260 TTSN, Rotax 532, 60 SMOH, always hangared, ASI, VSI, Tach, T/C, ALT, CHT, water temp, intercom, two helmets, 3-blade Ivoprop, 80mph cruise, Red & White Endura, hole covers, see pictures at www.telusplanet.net/public/kirkby , REDUCED to $22,500 for pre-winter sale. Bob Kirkby 569-9541 (7/00)

Three Point Restraints - A local supplier has a surplus of new heavy-duty three point harnesses. They are available in any color as long as it's YELLOW. Cost of the harness is $50 + GST. Belts feature a military style release. Interested parties should contact Kim Skulsky, 208-2813 skuller57@home.com (5/00)

Wanted - An ultralight for $5000 or less, in good flying order, strut braced, and registered to the person selling the plane. Rex McCarthy 403-504-1962 (5/00)

Forward ads to Bob Kirkby 569-9541.

Ads reprinted from the St. Albert Flying Club Newsletter

1986 Bushmaster II - ultralight, high cabin, side by side seating, dual controls, heater. 130 TTSN. Rotax 503, SCSI, 120 TTE. Complete manuals, drawings, & logs. Never a trainer, only 2 pilots. Very good condition, $16,500 OBO 780-459-0813 or e-mail tya@compusmart.ab.ca

Maule tailwheel - 6" pneumatic, $100 firm. Simon 963-0737

Hirth F-23 - used 6 hrs, 40 Hp, $2,800.00 Dan (780) 452-2491

Three bladed GSC prop - 64", almost new, $500. Contact Viv 460- 8753.

REDUCED! 60" x 38 Culver wood prop (left hand) drilled for Rotax. $250.00 Contact Viv Branson 460-8753.

I admire your confidence, but there's a limit to what you can repair with duct tape.

Skywriter

Skywriter is the official newsletter of the Calgary Ultralight Flying Club and is published 12 times per year. Forward your articles and letters to:

Editor: Bob Kirkby 569-9541
e-mail: kirkby@telusplanet.net

Assistant-editor: Bernie Kespe (see below)

Calgary Ultralight Flying Club

Meetings of the Calgary Ultralight Flying Club are held on the second Thursday of every month, except July and August, at 7:00 pm, at the Northeast Armoury, 1227 - 38 Avenue NE.

President: Brian Vasseur 226-5281
e-mail: vasseurb@cadvision.com

Vice-President: Stu Simpson 255-6998
e-mail: simpsont@cadvision.com

Secretary: Bernie Kespe 255-7419
e-mail: kespeb@cadvision.com

Treasurer: Carl Forman 283-3855
e-mail: formanc@cadvision.com

Director: Dan Mitchell 238-4254
e-mail: mitchell@cadvision.com

Past President: Wilf Stark 935-4248
e-mail: wstark@compuserve.com

Visit the CUFC web site:
www.cadvision.com/cufc/

ICOM IC-A4 Transceiver Draw and Membership Renewal

January 11th , 2001

As part of the membership renewal drive for 2001 the Calgary Ultralight Flying Club will raffle an ICOM IC-A4 transceiver. Ticket cost for the transceiver will be $5.00 each or 3 for $10.00. The draw will be held at the January 11th meeting and will be limited to MEMBERS ONLY.

Since all memberships expire at the end of December you may consider renewing your membership at the same time.

Thanks to the proceeds of these raffles, the silent auction at the annual dinner and our monthly door prize receipts the club has been able to stay within budget, so once again membership will remain at $20.00 for the year. A sincere thanks goes out to all those that have supported the club.

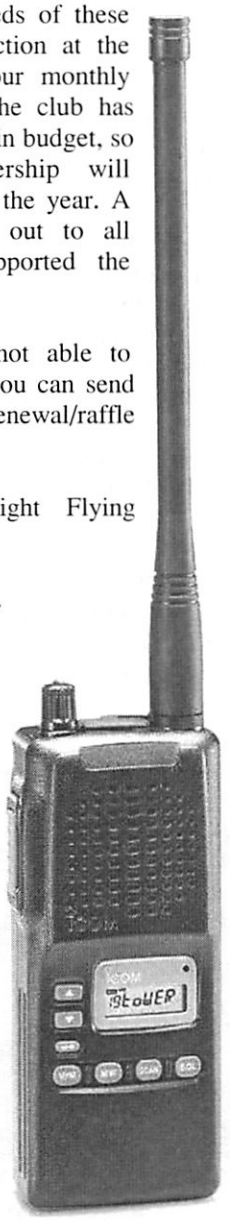
For those that are not able to attend the meetings you can send your membership renewal/raffle ticket cheques to:

The Calgary Ultralight Flying Club
c/o Bernie Kespe
6 Spokane Street S.W.
Calgary, AB
T2W 0M5.

Please make cheques payable to: The CUFC. Raffle tickets will be filled out on your behalf and placed in the drum.

For more information on the ICOM go to ICOM's internet site at: www.icomamerica.com/index.html

Bernie Kesp
Secretary



Mail Bag

Editor:

I read the whole (November) paper with interest, as we do here with each publication. Your heavy lift Russian aeroplane floating serenely in the water is especially interesting, for two reasons:

1. It would certainly make for fast economical transportation for cargo hauling as long as they stay away from the mountains, and

2. your mix of humor and fact is nice to see.

I use this article from the 'AVweb' when the TRANS ARABIAN AIR TRANSPORTATION B707 splashed into Lake Victoria, too. If you have the news wire narrative it makes for very good reasons why a pilot should brief themselves for any approach- day or night, and not allow themselves to become complacent due to a multitude of hours. Aside from the common scary statement of people giving directions followed by "you can't miss it" this one has an equally scary pilot's comment, "don't worry, I know what I'm doing."

This really is a story about ATTITUDE. The pilots' attitude rather than the 707. This 707 floated for at least 10 to 12 hours and was towed 5 kilometers to shore by a tug. It makes for good discussions on how we should keep our heads screwed on rather than saying how stupid someone else is and 'I would never do that'. This was a fish haul flight that the fish won.

A number of years ago a similar thing happened in San Francisco Bay with a large passenger line from Japan, I believe, with a load of passengers. No one killed, most stepped off into waiting small boats and didn't even get their feet wet. The a/c went on to fly again after being "wrung out" on dry land at SFO.

Keep up the good work.

Inspector J. E. (Ernie) Smith
Transport Canada
Edmonton
e-mail: smithe@tc.gc.ca

Thanks Ernie. The humour was courtesy Brian Vasseur - Editor.

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Carburetor Ice

by Allan Botting

Carb ice can happen! Luckily in our two stroke, ultralight world it seems to be a rare occurrence. But when it happens to you, the smile on your face suddenly changes. As the Rotax service bulletin states "Problems of that kind occur occasionally and create an insecurity". Enough of that. What is carb ice and what can be done to eliminate the possibility?

Carburetor icing happens unexpectedly and without warning. Generally we have two completely different situations, the formation of ice from **free water** in the float chamber/fuel system and icing of the water of **humid air** around the carb venturi.

Distinguish between:

- Icing of the mixing tube, possibly leading to loss of performance at continuous full load, due to lack of fuel. This would probably be free water.

- Formation of ice bordering the smallest section of the venturi at low load, possibly leading to engine stop at idle due to shortage of air. This would probably be humidity.

Formation of ice in the fuel system and in the float chamber (free water)

The water in the fuel will collect in the tank, lines and at the bottom of the float chambers, since water is heavier than the fuel. At temperatures below zero this water will freeze, most likely blocking the main jet of the Bing carburetor with consequent engine stop straight afterwards.

This is what happened to me. I had one of my carbs "freeze off" and began running on one cylinder and that you notice! The forced descent put the situation into warmer air and the "problem" cleared up. It turned out that I had a fair quantity of water in my float chambers! As the fuel tank has a probe pick-up that penetrates to the bottom of the tank, any condensation of water vapor will be immediately sucked up into the fuel system. In the float bowels of the carburetor next to the main jet is where it accumulates! This also would be the coolest location next to the heat loss of the venturi.

Prevention

As a preventive measure, plan installation of a water trap, I recommend a Gascolator, combined with an internal water barrier fine screen, between the fuel pump and the carburetor. The Gascolator is best installed after the fuel pump. If the suction side of the fuel pump has any leaks, a vapor lock could occur so therefore stay on the positive pressure side. The Gascolator is a small vessel that will act as a separator trapping the water and incorporates a drain valve that should be utilized before each flight to inspect and remove any water that may have accumulated.

Also every inspection period (25 hrs) take those float bowels off and confirm your Gascolator is doing its job. In addition drain off or suck-up a small quantity of fuel from the bottom of your tank and check the samples for water. Collect the sample in a glass jar and if water is present it will be the clear liquid on the bottom, look carefully as it could look like clear droplets on the bottom of the jar.

Icing on the venturi (humid air)

Carburetor icing will occur in the vicinity of the venturi and at fuel egress in carb, due to flow expansion and cooling down because of loss of heat by the vaporation process of gasoline. Critical weather conditions are at 0 to 15 degrees Celsius (30 to 60 degrees F) with high air humidity. Be very wary when the spread of the dew point and the ambient temperature are within 5 degrees or less!

At the atomization of the fuel in the carburetor and the subsequent vaporization, heat is withdrawn for the surrounding components of the venturi. The raised speed of the airflow combined with the pressure drop in the venturi intensifies the heat loss, causing in extreme cases a temperature drop of as much as 20 C (68 F). This leads to the precipitation of the water in the humid air. At temperatures low enough with humidity of the air sufficiently high, formation of ice may take place on the inside of the carburetor under certain operating conditions.

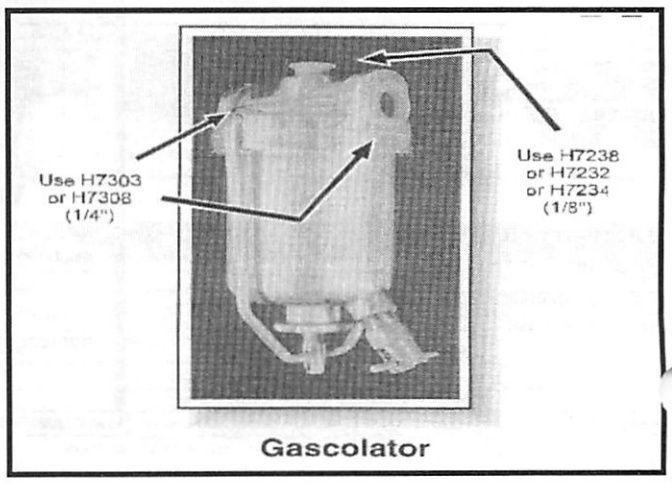
Prevention

Generally we have the advantage of having the oil mix in the fuel which tends to act on the surfaces to reduce adhesion of the ice. Carburetor heat has been the only positive measure to prevent venturi ice. Refrain from adding additional alcohol in the fuel, as there may be a small amount already in the fuel. Excess alcohol can increase the cooling affect and also have a negative effect on the oil lubrication.

Why is venturi carb icing with our Ultralights an uncommon occurance?

- Dry climate of Alberta
- Oil mixed in our fuel
- Pulsating of the two stroke engine
- The design of the sliding Bing "piston" throat

(continued on page 5)



Gascolator

Ice - continued from page 4

To summarize: Here are the counter measures

For prevention of water in the fuel pay attention to the following:

- Use only quality fuel of a registered brand
- Store fuel for short periods only (2 months max. again humidity dependant)
- Install a water trap in the fuel system (Gascolator) or
- Use a fuel tank furnished with water drain plug at the lowest point and a floating fuel pick-up.
- Frequently check and drain float chamber of each carburetor.

To avoid venturi icing the following needs attention:

- Aspiration of preheated air. On fan air cooled engines duct warm cooling air to intake filter. On liquid cooled engines provide jacket around muffler for preheating of intake air.
- Cycle the throttle setting from cruise to full power if a small drop in power is noticed.
- External preheating of carburetor/air with an Electric Carb Heater.
- Gasoline icing inhibitor (EMGE)?

I have installed a Gascolator (see photo) behind my fuel pumps and increased my diligence in eliminating water in the fuel. I will watch for venturi icing but I believe system or jet icing due to free water in my fuel has been my only encounter to date.

There is also the Mechanical Engineering Report LR536 from the National Research Council of Canada titled "Aircraft Carburetor Icing Studies" By L. Gardner and G. Moon. The conclusion of interest to us is the use of ethylene glycol monomethyl ether (EMGE) at 0.10 to 0.15% by volume in the gasoline and a Teflon-coated throttle plate was shown to prevent both carburetor and fuel system icing. The Teflon-coated throttle plate is not possible for our Bing Carburetors but the oil mix may serve to have the same effect. Now the question that needs answering by Rotax is the application of EMGE (Prist "Hy-Flow") detrimental to the engine warranty and would it be an approved alternate to carburetor heat. This approach is accepted in the certified aircraft world.

For further details see Rotax Service Information bulletin 4 UL 94-E from which I have heavily borrowed details. Note also that these recommendations are for information only, without commitment to advise modifications. ✈

Elections

Positions becoming available January 11th, 2001.

Vice-President - currently held by Stu Simpson.

Treasurer - currently held by Carl Forman.

Secretary - currently held by Bernie Kespe.

Anyone interested in running for any of the above positions or having any questions regarding these positions can give me a call (Bernie) at 255-7419.

The positions of vice-president and secretary will become VACANT. Carl has agreed to stay on as treasurer unless there are others that might be interested in which case there will have to be a vote. (There hasn't been a vote required for any position in at least 10 years!)

Nominations for the above positions will be accepted by the nominating committee up to one week prior to the January 11th, 2001 meeting. This is to allow the committee time to contact the nominee and discuss whether or not he/she is willing to run for the position. This process eliminates any potential embarrassment or rash decision making under pressure. The nominations put forward at the January meeting should be those that are willing to take on one of the positions. If this process doesn't work (no nominations are received) then I guess we embarrass some people while others study their shoe laces when volunteers are requested.

The nominating committee:

Wilf Stark - 226-6580
or
Bernie Kespe - 255-7419

Bernie Kespe
Secretary

Challenger **Puddle Jumper Floats**

Bruce Tillen
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Cranbrook, BC V1C 5R8
www.just-plane-fun.com

Jo-Anne Rutherford
Tel: 250-426-0049
Fax: 250-426-0941
email: bruce@just-plane-fun.com

Response to Transport Canada's Draft Instructional Requirements for Passenger Carrying in Ultralights

I'm responding to the Draft Passenger Carrying Rating sent to some flight instructors earlier this month. As president of the Calgary Ultralight Flying Club I've been asked to propose a response based on the feedback given at our November club meeting.

Most members in our club are not supportive of passenger carrying in ultralights for a variety of reasons. We do though see the benefit of Ultralight Schools being able to provide an endorsement similar to the RPP. It's clear that a flight school in an local area is what keeps ultralight popularity growing, and being able to entice pilots who would be considering an RPP into Ultralights does help the ultralight community and the school grow.

The overall impression of the Draft provided to us was that it was well written and the majority of our club members support the draft as it is written. Our thanks to the members of Transport who spent the time to put this together.

Our general impression is that Ultralights are becoming more popular, both because the cost of GA continues to rise and because the current ultralight definition means many types of aircraft are eligible for this category. You can fly anything from a single seat Chinook to a two seat Merlin safely and affordably within the guidelines for AULA and BULA.

As a club we did see a few points that we'd like to identify as items that we think should be modified based on the comments from the majority of the attendees of our last meeting.

1. We believe as long as this draft is limited to PAX carrying only it should proceed. The existing BULA legislation and instruction relating to BULA should remain untouched. Some of us weren't sure if BULA instruction could equate to passenger carrying so it should be clarified.

2. It's important to keep the unsuspecting public out of an aircraft that may not be safe to fly. AULA and Chapter 549 Amateur Built (homebuilt) legislation provides a reasonable assurance of a safe and maintained aircraft for a very small incremental cost over a BULA.

3 Instruction for PAX carrying should cover all the items listed in the draft. We do not feel it would be appropriate to eliminate any categories for safety purposes. It appears very similar in scope to the RPP rating which we feel is the minimum experience required for safe passenger carrying.

4. Instruction for PAX carrying should be in AULA, Homebuilt or Certificated as described in the draft. We can see no reason for instruction in a BULA if the intent is passenger carrying. In reality if only a BULA is available then what aircraft will this newly licensed pilot take passengers in? Designated Flight Examiners should not be expected to provide a test in an aircraft which is uninspected and may not easily be determined to be safe.

5. A class 3 medical, as required by the RPP, should also be required for the PAX endorsement. This is a minimal expense and inconvenience over the Category 4 and is a reasonable expectation.

6. The legislation identifies that Land and Float aircraft would be separate endorsements. We agree with this and would like to expand on it. Both powered parachutes and Trikes should also be considered as separate endorsements. We recognize that floats, trikes and parachutes are less common and will be more difficult to find a Designated Examiner for that type but we feel it's necessary for passenger safety.

7. We did discuss tricycle and tailwheel differences at our meeting and the concensus was that a single endorsement for both is satisfactory.

8. We discussed how a second person in an ultralight can significantly change the flying qualities of that aircraft. Adding a second person to a 1500 pound C172 has a noticeable effect on aircraft performance. Adding a second person to a 450 pound ultralight has a more dramatic effect on handling, performance and structural loads. A BULA aircraft never has an inspection from anyone other than the builder and an uninformed passenger has no way to know if that airplane is safe to fly in.

Ultralight flying in Canada offers a tremendous opportunity to bring more people into aviation who are turned off by the high cost of GA. We've got a really good situation now where we've seen gross weights significantly increased, growing respect within the aviation community and the growth of companies servicing the ultralight market.

All of this has come about because we've slowly shown that we can be safe and responsible as a group. If we approach passenger carrying in a casual manner we could easily be stopped by a few high profile accidents early in the game. We could also be faced with negative changes to the current BULA legislation that would eliminate what we've gained over the last few years.

Ultralight Passenger carrying came about because this segment of aviation is growing. We have nothing to gain by cutting corners for something this important.

Thank you for the opportunity to reply to the Draft for Passenger Carrying.

Brian Vasseur
President, Calgary Ultralight Flying Club.

Enter the ICOM radio draw and renew your membership at the same time! See page 3.

The Number Crunching Bunch

by Norm Goyer

I'VE ALWAYS HAD a problem with homebuilders and pilots who are obsessed with the need to go 3.5 mph faster and use 2.1 fewer gallons of fuel per hour and who are willing to spend thousands of dollars to achieve what they believe is "the only way to fly." That's not the way I see it."

My everyday transportation is a 1984 one-ton Chevy Suburban with a 454-c.i. engine. That Suburban has been faithful over many years, and we consider it part of the family. And Big Ugly only gets about 10 mpg.

A friend of mine just spent $22 000 on a new car because it would give him 45 mpg. His car loan costs him about 8 percent per year, so just the first year's interest would pay for enough fuel to drive Big Ugly 12,570 miles at $1.40 a gallon—about a year of driving. When you factor in the depreciation on a $22,000 car, you can forget about any savings—ever— even if it does get 45 mpg.

This automotive comparison can also be related to aircraft owners of both older, certified Cessnas and Pipers, as well as brand-new high performance homebuilts and ultralights. When I meet somebody obsessed with speed, I always ask them, "Why do you want to go fast? It's a beautiful day, and you should enjoy flying without worrying about how fast you can go."

Another friend of mine just spent $2,800 on a muffler that will allow him to fly 4 mph faster in his Cessna 172. How will he ever know? In my opinion, spending thousands of dollars to go a few miles per hour faster is sheer folly. In an airplane, any indicated speed below 150 mph is slow. The next big jump is when you can cruise at 200 mph, and speed utopia is reserved for those who can go 300 mph. Just don't ask them how much they spent to achieve those paint-blistering speeds.

A related breed of number crunchers are those who refuse to purchase the recommended engine for their homebuilt/ultralight—you know, the engine the designer installed and tested and has flown for hundreds of hours without any problems. These owners want to install the latest auto conversion engine, the one that's been getting all the hype. The same one that is sometimes flamed on the Internet newsgroups.

No matter; that's the engine they want, and they love the fact that it's only going to cost 60 percent of the recommended Lycoming. In is a Whizbang 350 engine that they claim will produce double the horse power of a Lycoming of the same size. But then, instead of installing the engine as delivered from the engine manufacturer, they change it, put in a different carburetor to burn 0.5 less gph, install a new CDI system to replace the stock one, and on and on, until the engine is very different from the one that was tested by the conversion shop. Suddenly they've become a double test pilot, one for the aircraft and one for the untested engine.

After many delays, they finally test-fly the plane. Then, one day, a bunch of your flying buddies ask you to join them in a flight to Catalina Island, across 20 miles of Pacific Ocean, over hundreds of hungry sharks with bad attitudes. Now it boils down to a few simple facts: Did you really save any money? But the most important one is this: Are the parts installed on the engine going to work? Taking that trip is a go or no-go decision I prefer not to make.

I also believe that human beings were born to race anything with wheels or wings. The need to change things is also inbred, as is the need to experiment. And the desire to be different is a trait that cannot be explained nor denied.

On the other hand, if pilots and designers were satisfied with what they had, there never would be any changes, and our kids would still be asking, "Hey, Dad, can I borrow the keys and the crank to the Model T tonight?" rather than "Hey, Dad, can I bum the Beemer?"

You can't always think of flying in terms of dollars and cents, but you can tell your number-crunching buddies you don't want to hear it. Tell them: "You can fly your plane with the thousands of dollars of questionable improvements on it, and I'll fly my stock box, and while you're still tying down, I'll be landing with a lot more bucks in my pocket than you have. And, yes, if your plane isn't flying right now, you can borrow mine to fly to Catalina for a $500 hamburger. Just don't try to talk me into modifying it. I like it just the way it is!"

The opposite of the number crunching bunch is the number ignoring bunch. They waste almost as much money as their tight-fisted brethren. I had a Kitfox parked in the hangar next to mine. It had a panel that would rival that of a 747. If it existed, it was mounted in the panel. He had the main panel, a subpanel, a top panel and two side panels. He had all the latest digital instrument readouts, plus flight instruments that could land you in the vilest weather.

Of course, the owner wasn't instrument rated, and anyone flying a Kitfox in IFR conditions with a Rotax 582 is suspect from the start. The Kitfox was much too heavy, and it couldn't be flown with a passenger or when the temperature was over 85 degrees. He had the plane exactly the way he wanted it, but was he wrong.

Who will pay $75,000 for a Kitfox even though it had $40,000 worth of radios? You can also trap yourself by ignoring the resale numbers. If the average price of a used Cessna 170 is $32,000, then don't sink an extra $20,000 into improvements; you'll never get it back.

On second thought, go ahead and give me a call when you're finished; I can always scrape up $25,000 cash for a really nice classic Cessna 170B.✈

Feature Kit

Carlson Aircraft Sparrow II XTC

Flying at its very best. Rugged airframe is welded 4130 steel by oxy-acetylene process assuring complete welds with full penetration. Wing tanks carry 22 gallons of fuel. Power plant options to 100 HP, and complete light package positions this aircraft as affordable cross country flying.

Independent flaps and ailerons enhance maneuverability and assure short field performance. Roomy cockpit, dual controls, ample sized instrument panel, baggage compartment, are standard.

We simplified the building process without jeopardizing aircraft integrity and still comply with the FAA 49 percent rule. Ribs are factory completed. Airframe is epoxy primed and ready to cover. Full sized patterns are provided for floorboards, boot cowl, instrument panel and windshield. Hand tools and rivet gun are all that's needed to complete this kit from flying dream to reality.

Specifications

Empty Weight:	600 lbs
Useful Load:	650 lbs
Gross Weight:	1250 lbs
Wing Loading:	8.9 lb./Sq. Ft.
Overall Length:	16 feet 9 inches
Overall Height:	7 feet 9 inches
Wing Span:	31 foot 2¼ inches
Wing Chord:	4 feet 6 inches
Wing Area:	140 square feet
Airfoil:	Gottingen
Engine:	Continental, Rotax 912/582, Subaru E81, VW Conversion
Horsepower:	Up to 100 HP
Fuel Capacity:	32 gals with wing tanks
Cruise Speed:	110 M.P.H.
VNE:	130 M.P.H.
Stall Speed:	39 M.P.H.
Take-off Distance:	150 Feet
Landing Roll:	250 Feet
Rate of Climb:	1100 FPM - Rotax 582

Features

Full lighting package - nav, landing & strobes.
Ribs factory formed, finished, ready to assemble on spars.
All 4130 steel fuselage parts are oxy-acetylene welded insuring proper penetration at ALL clusters.
Components commonly listed in a Fire wall Forward Package are included in our Fuselage and/or Finishing Touches Kit. All parts are itemized.
Shock mounted mains. Hydraulic brakes.
22 gallon aluminum wing tanks. Minimizes "weeping" problems encountered in fiberglass resin tanks.
Instruments and finish dope are priced separately.
Power plant price sheet available.
Full graphic assembly instructions. Only hand tools are required.

Pricing (Note: USA Dollars only)
Full Kit Price: Includes all below except engine, finish dope, instruments and crating. $14,875.00.

Wing Kit: 6061-T6 I beam extruded spars, Factory completed ribs, Leading edge, Trailing edge, Streamline Struts, Aileron & Flap pre-formed parts, Hardware - AN quality, All internal structure 6061-T6 or 2024-T3, False spar, Wing tip bow, Two 11 gallon wing tanks - All fittings $5,430.00

Fuselage Kit: Airframe, Tail surfaces, Shocked landing gear and nose gear,

Engine Mount - all welded and epoxy primed, Controls welded and primed, Firewall, Instrument panel, Boot cowl, 2 Access doors - fully enclosed, Floorboard, Rear windows - Cockpit controlled trim tab, Fairings $5,570.00

Finishing Touches Kit: Molded fiberglass cowling, Fabric sewn envelopes, Tape, Rib stitch cord, Rivets, AN Hardware, Two bucket seats (adjustable) w/cushion, Hydraulic brakes, Wheels, Tires (15x6:00x6) on mains and 13x5:00x6 on nose), Lexan windshield, Skylights, Wheel pants, Full light package - Nav, Landing, Strobes, Luggage lair. $4,350.00

Power Plant: Continental, Rotax 912/582, VW Conversions, Subaru Conversions Ask for Quote

Crating: Required for shipping $375.00

For additional information contact:
Skytek Light Aircraft Kits and Components.
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50643 S.R. 14 - P.O. Box 88
East Palestine, Ohio 44413 USA
Phone: 1-330-426-3934
Fax: 1-330-426-1144
Web Site: http://www.sky-tek.com/

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