Skywriter

Monthly Newsletter of the Calgary Ultralight Flying Club

June 2000

From The Cockpit

by Brian Vasseur

At the last meeting we had two representatives from COPA at our meeting to discuss what activities they were undertaking and what progress they had made so far. They've made some significant headway in opening up aviation to the masses and doing what they can to manage and in some cases reduce the costs of flying.

One of the most significant things they've accomplished recently is the creation of the owner maintenance category. Remarkably it has a lot of aircraft listed so I think this will have a significant impact on GA in Canada. It's time now to start scouting garages, barns and airports to find one of those aircraft that have sat rotting away and bring them back to life. Also coming in the future is a new "Sportplane" category which I'll write about in a future issue.

Something else COPA advised us of was the introduction of the new ultralight passenger carrying regulations. Hopefully this change will come thru later in the year. This change only affects pilot licensing, not aircraft, so you're still limited to Advanced Ultralights or Amateur built aircraft if you intend to carry passengers.

From what we heard about ultralight permit passenger-carrying is that it's similar to the recreational pilot permit as far as hours and instructional requirements. It will be tailored to the ultralight community so we won't have to be taking our training at a major airport in a Cessna. It's also my understanding that the ultralight instructor rating will change in the future as well to accommodate this new permit.

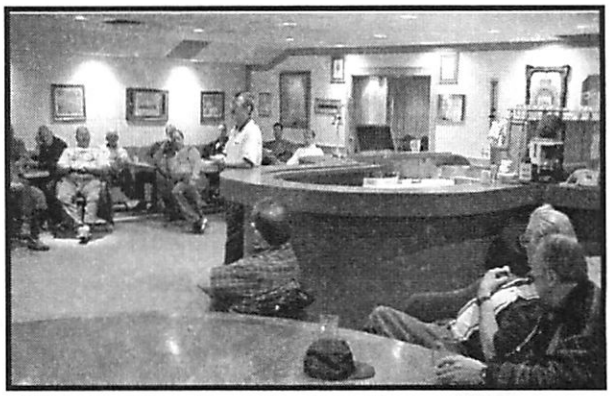
I have to say that I'm quite happy with the way this legislation is proceeding. It addresses all my concerns of safety and pilot requirements and doesn't seem to have any negative implications.

Also at our May meeting Wayne Winters spent some time discussing his proposal for starting a non-profit society flying club. The intention is that 10-20 members buy into the club for a $1500 one time initiation and then have an airplane to fly for about $30/hour. I think this is promising because owning your own plane is expensive, and if you figure out what it costs to fly your own plane it's probably over $100/hour if you include hangar fees, gas, and money put away for an engine rebuild and other maintenance. I also think the $1500 non refundable initiation is a good idea, it motivates the members to get out to the airport and fly, and the increased activity means that the airport turns into a more popular place to be. I've asked Wayne to put a writeup into this months issue to explain it in more detail.

I also spent some time this month at Indus to check out some airplanes to get ideas as to how to finish my Volksplane. It's inspiring to look at that many airplanes and get ideas, always searching for the one idea that makes building an airplane that much easier. Something else I noticed though was that there's a lot of airplanes that don't look like they've moved in a long time. It's a little sad to see aircraft sitting unused because people have lost time or interest. I think it's just one more reason to join a club and share an airplane, both so they get used and so we can all keep our interest.

So far it looks like it's going to be a good flying season so get out there and have fun. Sadly Bernie Kespe had to have hip replacement surgery at the Foothills so he'll be out of commission for a while. We agreed at the last meeting to send him flowers on behalf of the club but I suspect he would have preferred a new muffler for the Renegade.

Have fun out there. ✈



COPA President Kevin Psutka addresses May meeting

Flying Events

June 4 - Lacombe annual fly-in breakfast. Contact Dalton Deekrick 403-782-3827.

June 10 - Lethbridge EAA Chapter Poker Run. Rain date is June 11. Contact Ron Janzen 403-345-3013.

June 11 - Innisfail fly-in breakfast, 7:00 - 11:00. Contact Herluf Nielson 403-728-3457.

June 11 - Hinton fly-in breakfast and mini-airshow. Overnight campers welcome. Contact Jim Fry 780-865-2159.

June 17 - Glen Bishell's annual fly-in breakfast/lunch, 7:00 - noon at Glen's strip. Contact Glen Bishell 403-337-2564.

June 25 - Okotoks fly-in breakfast, 8:00 - noon. Official opening of Okotoks Air Ranch. Contact Al Craig 278-7372.

June 25-July 1 - Ultralight Adventure 2000. Calgary to Castlegar and return. Contract Stu Simpson 255-6998.

July 5-9 - Arlington NWEAA fly-in.

July 9 - Wetaskiwin Flying Club fly-in breakfast in conjunction with Reynolds Alberta Museum "Salute to Aviation", 8:00 - noon. Contact Jim Robson 780-352-1174.

July 15 - Kirkby's annual fly-in breakfast 8:30 - noon at Kirkby Field. Contact Bob Kirkby 569-9541.

July 16 - Vulcan annual fly-in breakfast, 8:00 - 11:30. Contact Cody Whiteside 403-485-2083.

July 16 - Cooking Lake fly-in breakfast, 8:00 - noon.

July 23 - Edmonton Homebuilt Aircraft Association fly-in breakfast at Villeneuve airport. Contact Orvis Bambush 780-450-1595.

July 26 - Aug 1 - Oshkosh Airventure.

Sept 16 - Rocky Mountain House fly-in breakfast/lunch and airshow. Contact Ken Fowler 403-845-4742.

If you know of any other fly-ins or airshows in Alberta this summer please e-mail info to Bob Kirkby for next month's Skywriter: kirkby@telusplanet.net

For Sale

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)

Bushmaster II - 1986, Rotax 503, TTSN 120, cabin heat, complete logs, assembly drawings and construction manual. ASI, ALT, VSI, TACH, EGT, CHT, slip indicator. White with black and red trim. Nice clean, well cared for aircraft. New throttle and choke quadrant, all engine and fuel lines and cables just replaced. Digital pictures available. Current location Edmonton, AB, $16500.00 or best offer. Reg Lukasik 780-459-0813 (4/00)

Beaver RX-550 - Rotax 503 dual carb, Warp Drive prop, electric start, enclosure kit, TTAF 625, TTE 105, $9900. Victor Thiessen 403-546-4449 (4/00)

Bushmaster - 1986, 2-seat, dual-control, fully enclosed cabin, 503 Rotax, ground adj prop, 510hrs, complete with crop spraying equipment, always hangared, $12000. Ken Giesbrecht 403-572-3294 (3/00)

Skis & floats - Powder coated skis for tri-gear or tail-dragger $850, floats $1500. Don Leonzio 250-427-2046 (3/00)

Hanger - One half share in indus hanger for sale, 38 ft door facing east call Ray Waller at 274 4388 or cell 540 2492 (3/00)

Flying-Flea HM-293 - Famous MIGNET Aircraft redesigned by GRUNBERG as an Ultralight. More than 100 flying. French plans and brochure with English translation, $110.00, mailing included. Paul PONTOIS, 1890 Rang des Chutes, STE-URSULE (Quebec) J0K 3M0 (3/00)

Yarrow Arrow- Enclosed heated cab, dual control side by side seating, 55 HRS TT on new 503 dual CDI dual carb,100 CH Alpha/100 radio, alum. skis, hangared. $13,000. Located in Lac La Biche AB. PH: 780-798-2404 FAX: 798-3011, e-mail: rckb@telusplanet.net (1/00)

MiniMax - Rotax 447, GSC Ground adjustable prop, full panel, always hangered, only 115 hours since new. $9,500. OBO. Dale 293-3826. (12/99)

Forward ads to Bob Kirkby 569-9541.

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.

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Where to Fly Today?

By Dan Mitchell

Like many other UL pilots, I enjoy flying to different air fields, especially new destinations or places that I haven't been to recently. However, when I took off from Indus that Saturday morning in May, I didn't realize what a treat I was in for.

My plan was to head for Rockyford, a destination I had only been to once before. The airfield I wanted to visit is a private strip on a farm near the small town of Rockyford, about 38 miles north east of Indus. I was out of bed and on the road before sunrise. By the time I arrived in Indus, the sun was up and except for some thin cloud on the eastern horizon, the sky was clear.

It was a perfect morning for flying. I took off from Rwy 28 into a light head wind and climbed to circuit height. Once out of the circuit I headed northeast. With my map clipped to my knee board and my GPS set for Rockyford, I was on my way. The flight took me southeast of the town of Cheadle, northwest of Strathmore and along the north side of a set of railroad tracks that went all the way to my destination.

As I flew along I became aware of an added bonus of spring time flying. The grass of the local turf runways turns green much earlier that the brown fields that surround them. Several grass strips that I had never seen before jumped out at me like beacons.

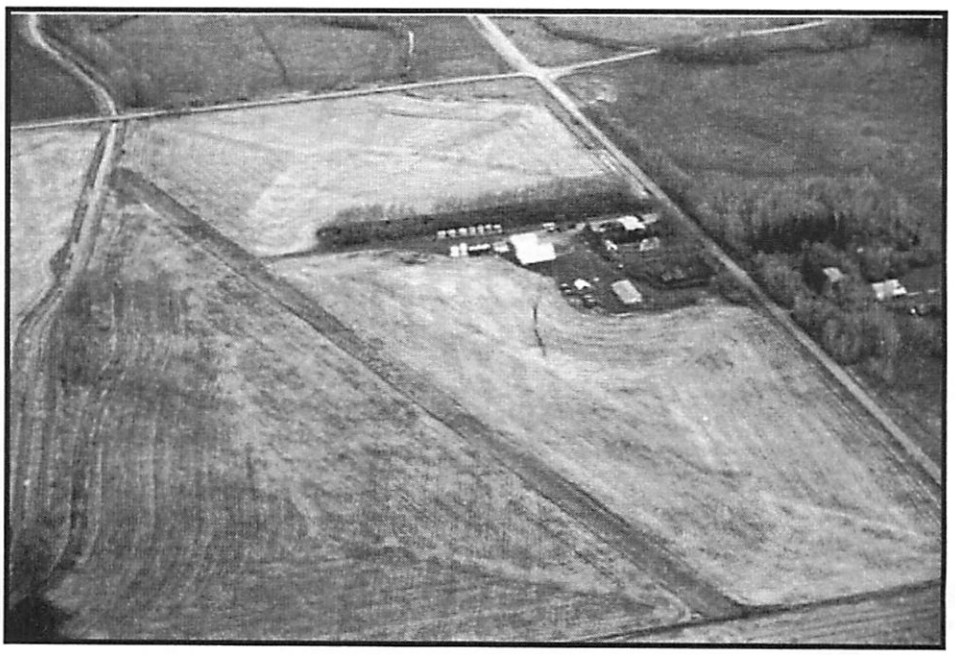
The first new airfield I discovered is just east of Cheadle and south of Hwy 1. This north-south strip is long and wide and terminates on the north end between a house on the west and a hangar on the east. The property appears to be beautifully maintained. I elected not to land there, thinking that the owner may not appreciate an uninvited "noisy" visitor buzzing his house at 7:00 in the morning. I entered a waypoint into the GPS with the intention of returning another day.

Private air strip east of Cheadle and south of the Highway 1, view looking NW.

The next leg of the flight was very pleasant but not entirely uneventful. After leaving Strathmore behind, I kept track of my progress by identifying roads, railroad tracks, and small lakes on my map as I passed them. I found it very rewarding to continuously monitor my position on the map by identifying the local land marks.

I was within site of the town of Rockyford and about five miles from the Rockyford airfield when I passed over the second new airfield of the day. I took a number of photos of the runway and farm as I passed overhead, and entered the new waypoint into the GPS but once again decided to continue on to my original destination

However, my Beaver had other ideas. Moments after passing this runway my engine coughed. Once. Twice. My immediate thought was ice or water in my carburetor. *(continued on page 4)*



Private air strip west of Rockyford, view looking NNE.

Where to Fly *- continued from page 3*

I made a quick 180 and returned for a landing on the airfield I had just past. It was a smooth rolling runway with a low fence at the southeast end and an irrigation canal and power line at the northwest end.

Once down, I examined the fuel in the float bowls and drained them, although I didn't see any contamination. The carburetors were very wet with moisture dripping off them suggesting the possibility of condensation in the carburetors.

A few pulls on the starter cord and I was back in business. Noting that the runway had a fair up hill slope to it and the power line at the far end, I taxied back to the fence and prepared to take off from there. Everything went as it should and the Rotax behaved itself for the rest of the flight.

Private air strip north of Cheadle, view looking WSW.

I arrived at the Rockyford airfield within a few minutes and set down for a brief rest. For those who have never been to Rockyford I would suggest you add it to your list of places to visit. The runway is long and smooth with only a few rolling highs and lows along its length. It is well marked with reflectors down both sides.

Having already stretched my legs during my previous unscheduled stop, I was back in the plane and heading for home in short order. Once in the air I realized that it would be just a short detour to the east to visit another airfield I had not been to before. This strip is owned by R. Newell and is included on the CUFC flight map. I scrolled through the list on my GPS until I found the correct waypoint and headed in that direction.

The runway at Newell's farm is a northwest-southeast strip. It appears to be mostly bare earth with many ruts and tire tracks running down the length of it. This could have made for an exciting landing. I made a very brief touch and go, barely setting down before adding power and lifting off again.

Once again back in the air and heading for Indus I came across the final surprise of the morning. Near the small town of Cheadle again, but this time on the north side of Hwy 1, I found another very nice looking farm and runway. After entering the location in my GPS I am now ready to go back for a return visit.

That morning, my simple plan was to make my second visit to the Rockyford airfield and return home. Instead, my flight became an adventure during which I not only landed at Rockyford but visited two new airfields and located two others to fly to another day.

With the number of local airfields available to ultralight pilots in the Calgary area, I suspect that during a good year of flying most of us could fly to a different field every time we're out without visiting the same place twice. ✈

Rockyford air strip northeast of the town of Rockyford, view looking NW.

One Pilot's Opinion

by Bob Kirkby

After a long hiatus I'm back with my column once again. Actually I've wanted to do more writing but by the time I get the Skywriter put together each month there's just no time left for writing my own column or article.

One of the things I've been busy with is building a Pilot's Lounge at the airport (Chestermere - Kirkby Field that is). I'm happy to say that it's now ready for use - except for the washroom! That will have to wait another month since I'll be traveling for the next couple of weeks. But there's lots of long grass around to take care of the immediate need.

The lounge is equipped with furniture (still some needed), charts, telephone, frig with pop, confections, coffee and tea. There's even a TV to watch if you have to wait out some weather. It's also heated if you just want to stop and warm up on one of our occasional cold days. (I would like thank Carl Forman and Stu Simpson who donated much of the furniture.)

Entry to the lounge is via a push-button combination lock and instructions are posted on the door. The combination is the four digits of the Calgary Terminal VFR Advisory frequency. If you don't know it just check the Flight Supplement.

Everyone is welcome to fly in and relax in the Pilot's Lounge at any time. Chestermere airport now makes a great destination for a group flight. After the washroom facilities are in we'll be offering fly-in camping as well. (The airport is in the CFS under Chestermere and is now on the charts.)

Speaking of flying in; just in case you haven't heard there's a new cell site tower gone up one mile south-east of the airport. It's about 200 feet high and is NOT painted, which makes the tower hard to see. Fortunately it has a strobe on top. If you fly an extended left downwind for runway 26 you will fly right over it, so be careful.

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Love/hate your Rotax

After the Dampener Box went on the Rotax 532 in my Renegade up at Wetaskiwin last summer, I thought just about anything that could go wrong with a Rotax 532 had happened to mine. Not so. If something bizarre can happen it will happen - to me.

During the winter I pulled the 532 out to set the timing. The previous few times I had flown I noticed I was getting slightly decreasing max rpm each time. I have timing the 532 many times and have it down to a 15 minute ritual, once it's on the bench. This time something went wrong. No matter where I set the adjustments I could not get the timing where it should be. In fact it was way out. The specs say 77 thou BTDC. The best I could get was 40 thou, on both cylinders. It proved to be so frustrating that I left it on three occasions and returned to try again several days later. To no avail however. On the last attempt Stu Simpson happened to be watching me and suggested that I borrow some parts from Bernie Kespe's 532, which was currently disassembled, to see if I could narrow it down. The only possibilities were the flywheel or stator plate, so I took his suggestion and borrowed Bernie flywheel first.

Before installing it I did a visual comparison and discovered that the cams where positioned differently by about 10 degrees. For those who aren't familiar with the older point-ignition Rotax's, the cam is part of the flywheel. I went ahead and installed Bernie's flywheel and was able to get the timing bang-on in my usual 15 minutes. So, this was interesting.

I pulled the flywheel off and gave both a very close inspection. That's when I noticed that there was a very slight groove between the base of the cam and the flywheel on mine but not on Bernie's. Then it occurred to me that the cam had actually turned in the flywheel. Not supposed to happen, right? So I applied a mild prying force with a small screwdriver and to my surprise it popped out in my hand.

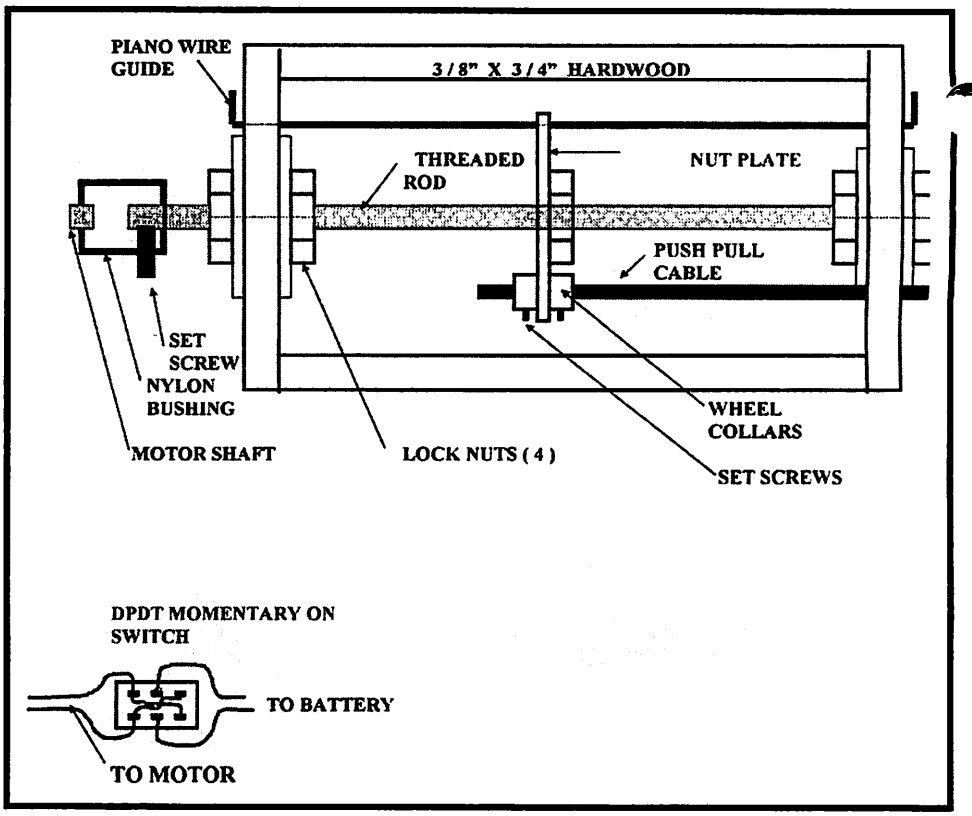
The cam, which is harder than the flywheel, apparently is heat fitted in place. The really amazing thing is that there is absolutely no keying mechanism between the cam and the flywheel, even though the flywheel is keyed to the crankshaft. So if the cam should become loose enough to turn, as mine did, the absence of a key means it will turn and possibly shut down the engine. The Rotax design engineers had too much faith in their analysis of dissimilar metal behaviour!

Fortunately the newer CDI ignitions do not require a cam, so unless you have an older point-ignition engine, you don't need to worry about this potential problem.

Always look for a landing place! ✈

Build an Electric Trim Actuator

by Ed D'Antoni



You can build this 100 lb-thrust Power Trim Actuator for less than $10.00

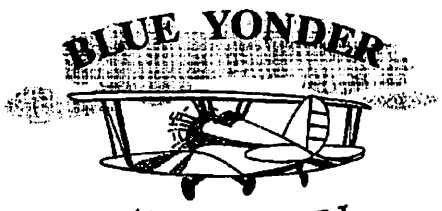
This trim actuator has been problem free for 4 years in our Rans S-12. The mechanism is simple and consists of a few lengths of 3/8" by ¾" hardwood, a 6 inch threaded rod, a few lock nuts and a geared electric motor. The entire actuator can be built in less than 2 hours. For those of you that are not confident in the strength of wood, sizes for construction from Aluminum are given.

The drawing pretty well tells the story, however I will start with a parts list, then a description of how the actuator works and finally construction details.

Parts list:

1 3/8" X 3 / 4" X 18" hardwood (or 1/4 X 3 / 4 Aluminum)
1 12" X 3" Sheet 3/16" thick 5 ply aircraft plywood (or 3/32" Aluminum)
7" 10-32 Threaded Rod
4 10-32 lock nuts (Metal, not fibre locking preferred)
1 10-32 nut plate, fibre locking portion removed
6" 1/8" Piano Wire
1 ¼" X 1" OD nylon bushing, 1/8" ID
1 12 Volt geared electric motor
Misc. wire and one DPDT momentary on switch.

The hardwood is commonly sold as motor mount stock at all R/C hobby shops. Nylon bushings can be purchased at most hardware stores for 25 cents. The motor/gear drive should be a good quality 12 or 24 volt system that will produce at least 4 inch pounds of torque when running at 12 volts. If you cannot find a suitable motor/gear reduction unit, the mechanics from almost any R/C servo can be used. Most large R/C hobby shops will either give or sell for a modest amount a servo that has had an electronic failure. Servos are so inexpensive nowadays that electronics are no longer repaired or replaced so they give away the motor and electronics for free. I have a few free servo mechanics for those of you to shy to ask for one at a hobby shop. To use the servo mechanics, simply open the case and remove the electronics. Place a ½ watt, 8 ohm resister in series with the motor (leave the resistor in the case). Hook one wire to a motor lead and the other to the end of the resistor. Put the servo back together leaving a reasonable length of wire extending from the case. The output of most servos is adequate for this project. If your servo has a mechanical stop preventing it from running continuously in one direction, the stop must be removed. The stop is most always a small plastic extension on top of the output gear. This *(continued on page 7)*



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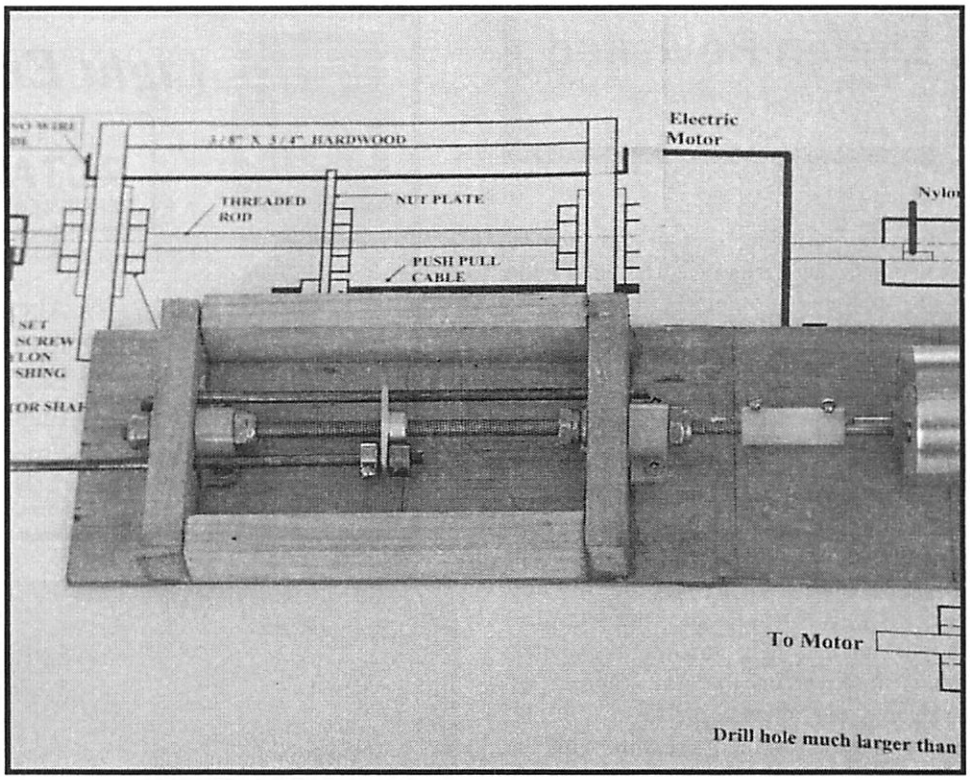
Trim *- continued from page 6*

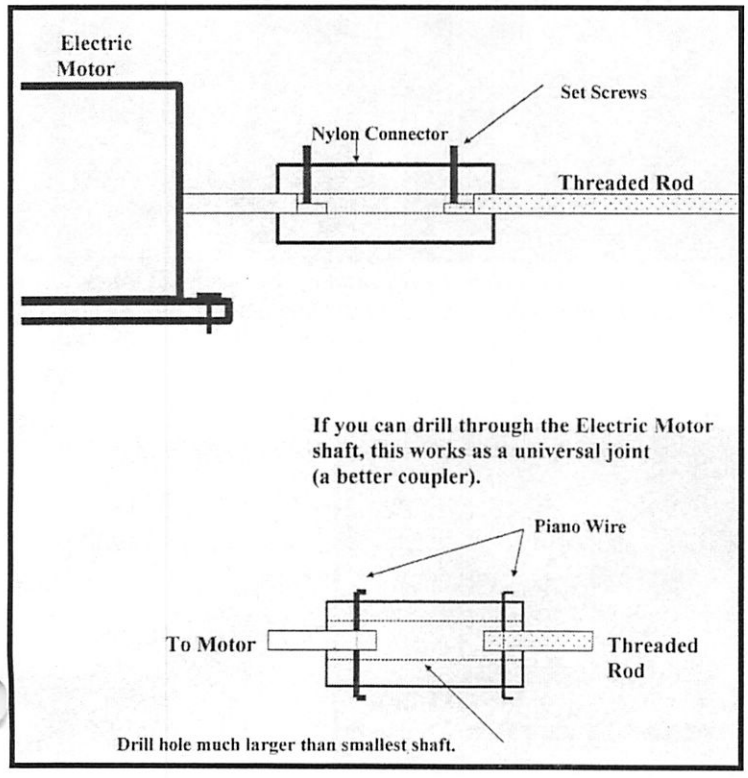
stop can be cut off with an exacto knife. Another good power option is a motor/gear reduction drive from a rechargeable electric screw driver . The drive described is 3" X 8" with a maximum throw of 3 ½ inches. The actual size can be reduced to as little as 2" X 5"
with a reduced throw of 2".

Operation - The nut plate is prevented from rotating by the Piano Wire guided rod. The rotating threaded rod moves the nut plate back and forth. The trim push-pull cable is moved by the nut plate.

Construction - Cut the 3/8" by ¾" hardwood strip into two 3" and two 4" length. Drill a 3/16 hole in the exact center of both 3" lengths. Place the nut plate over the hole, and mark and drill 1/8" holes at the nut plate mounting locations.

Next, use the pieces to form a square exactly 1" from one end of the 3" by 12" piece of aircraft plywood sheet. Epoxy two sides and one end in place. If you epoxy both ends in place you will not be able to assemble the threaded rod. Thread the nut plate to the Centre of the threaded rod, then place one lock nut approximately 2" from each end of the threaded rod Place a washer against each nut, then put the threaded rod in place as shown on the drawing. Epoxy the fourth wood block in place. Place a washer and lock nut on each end of the threaded rod and position the lock nuts as shown in the drawing. Place the piano wire slide rod in place and you now have the basic assembly.





Connect the motor to the threaded rod as shown. The ideal connection is a small universal joint. A universal joint is made by drilling a hole through the connection end of each rod, and using a nylon bushing and two small pieces of piano wire as a universal joint. R/C wheel nut collars, another item your local hobby shop, are used to connect the trim push pull cable to the nut plate.

If you do not feel confident in building a coupler, you can purchase a small universal joints used in high performance electric R/C boats from your local hobby shop.

For those of you using Aluminum rather than wood, you can either bolt or drill, tap and screw the pieces of Aluminum together. Make sure the end pieces overlap the top and bottom bars. The design is such that the ends are always under compressive load.

Questions? Feel free to e-mail me at dantoni@nucleus.com. ✈

Linden Revisited

by Andy Gustafsson.

Linden airport with one of the greatest restaurants that Calgary Ultralight Flying Club members regularly frequent, is rumored to be closed. Apparently a church is to be built on the runway.

On our last trek to this picturesque destination, we asked the locals about it. The people we talked to, said that they did not know if or when the airport would be closed. The runway, at the time of our visit, was nicely groomed and surprisingly void of the gopher population and their burrows. As soon as we shut down on the grass apron, we triggered the interest of the town folk. Stu had an information session with the kids and Carl and I chatted with a fellow that had just flown in from Fort Macleod in his Cessna 150.

Patrons in the "Country Cousins" restaurant surrounded our table, asking questions about our little group and our aircraft. Some of them followed us out to our aircraft to see us off. Linden Alberta is one of those friendly little towns. People take it easy and have time to stop and say hello and talk awhile. It is a real treat to stop off there and help out the local economy. Time is a little slower but people seem to be happier. So, if you are looking for a place to fly to and to sample some excellent cuisine, GO TO Linden. Oh yes, don't forget the power lines on the south end of the runway. Enjoy your visit. ✈

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Pictured at the May CUFC meeting, from left: Carl Forman, Dan Mitchell, Brian Vasseur, Wilf Stark, COPA Chairman Ken McNeill, COPA President Kevin Psutka, Stu Simpson.

Andy and his Challenger at Linden
Photo by Stu Simpson

Ron Labey's 1991, AMF-S14F Miranda takes off from Rwy 16 at Indus.
Photo by Dan Mitchell