

QUEENSLAND ULTRALIGHT ASSOCIATION

AUGUST 2003 Newsletter

Watts Bridge Memorial Airfield, Silverleaves Road, Toogoolawah, Qld

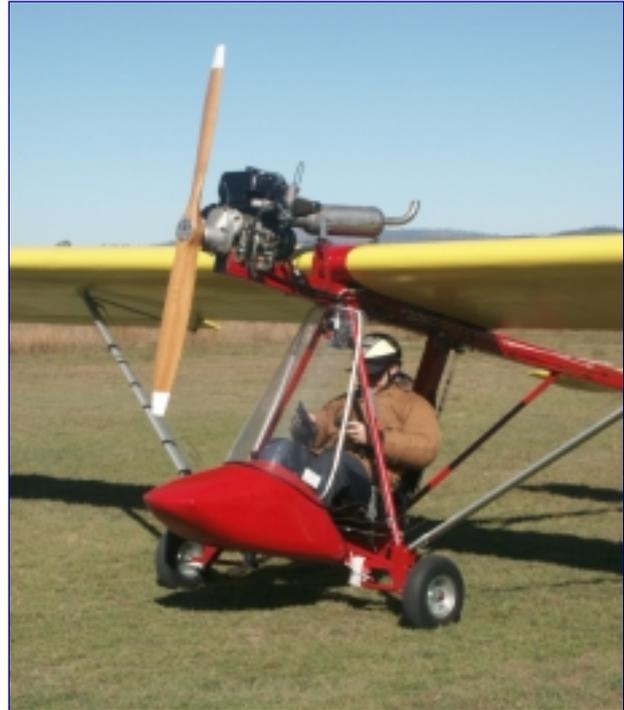
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EXCELLENCE IN AUDIO

July 05th was the day of the QUA Fun Flying Poker Run. No less than 21 pilots got in on the act, flying their aircraft all over the Brisbane Valley collecting cards in pursuit of the ultimate poker hand. That evening at the XMAS in July dinner it was revealed that Peter Fraser was the winner with an unbeaten showing of 3x 10's.

Late in the evening the QUA's fund raiser "The Propeller Clock Raffle" was drawn with Gus de Latt from Watts bridge being the winner. The raffle raised \$1200 which will go toward the cost of building our meeting rooms at Watts Bridge Airfield.

Everyone who participated agreed it was a *GREAT* weekend, sure to be on again next year – so look forward to it in 2004.



COMING EVENTS

9th August The SE Queensland Monthly Fly In is at Clifton. BBQ lunch.

29th & 30th August Queensland Vintage Aviation Group Annual Fly In at Watts Bridge. See lots and lots of old aeroplanes doing all that old aeroplanes do!! Fully catered. complete with Bar facilities. Overnite camping. A great weekend for the aviation enthusiast. Contact Shane Winter 3289 9296

27th & 28th September Boonah Flying Tigers Annual Fly In. Some great aircraft at a great airstrip. Dinner and drinks Saturday night. Contact Ray Wheeler 0411 956 734

Early October The AUF sanctioned Centenary Of Flight fly about. Contact the organiser Andy Dunlop by email at andydunlop@dodo.com.au for an itinerary and additional information.

PRESIDENT: Michael Smith (07) 3206-3548

SECRETARY: Peter Fraser (07) 3267-7297

TREASURER: Richard Faint (07) 3818-1988

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QUA Members Bevan Dryden and Don Mellow saw the need for a reasonably priced, single place ultralight aircraft. So: They put on their thinking caps and got to it. In this article, Bevan reports progress to date.

Don and I have been concerned for some time for the new people coming into the sport. It will cost them anywhere between \$2000-\$3000 to get their licence and once having achieved their goal they will hit a brick wall. It currently cost about \$90-\$110 an hour to hire an aircraft that is if you could find someone who would be willing to hire you one. This is basically the problem. To go and buy an aircraft its a Jabiru at a reasonable price or one of the \$100,000+ jobs which isn't practicable for a new pilot. The only other alternative is to build yourself a little buzz-box from a kit or if it's not too difficult from scratch yourself. As we said cost is the major problem, the reason why the average age of ultralight pilots is 58 years is because this is the only group that can afford the wizzbang machines.

Having come to the conclusion that the only way to get people into planes is to build a cheap, solid and easy to build machine that would be within the capabilities of anyone with basic workshop skills and tools. We had a good look at a lot of aircraft, Rag and Tube, GRP, Wood and metal and came to the conclusion that the all metal aircraft needs less skills to build, is cheaper in the long run, does not need a hanger (a prime cost in owning an aircraft) is repairable and does not need painting. With the metal aircraft you only have to buy the material as you need it.

Having decided on an all metal design we were quick to notice that aircraft grade aluminium is rather expensive to buy and not available in Brisbane. This means that freight is an extra cost and if you are caught short you cannot just go down the road to buy some. This being the problem we started to do some research on different grades of aluminium available in the commercial market place and related this to the different stresses that different parts of the aircraft is subjected to and we found that we could buy different grades of commercial aluminium that would do the job. Hey presto much cheaper and when you need something in a hurry or you just plain made a mistake availability is handy.



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Not only did we check the strengths for our application we also canvassed all the aluminium suppliers to ensure we would be buying at the cheapest price.

My/our design strategy was to keep everything simple. To this end we looked at the Zodiac, RV's, Sonnex and every other plane we parked beside to get all the simplest methods of construction for each part with the idea that the plane had to be built on an 1200mm x 2400mm table which may have to be put away from time to time. The plane also had to be able built in stages. The table has to be level at all times and this is all the jigs you need.

With this all in mind over the last twelve months Don and I have been doing the preliminary design schedule as well as the stress analysis to enable us too incorporate the chosen materials or visa versa. Although there are two aircraft Dons is building one and I am building one the philosophy of both aircraft is the same there are differences these are our personal preferences and flight testing will decide which are the better. We are using Quickcad by Autodesk to do our drawings and when the aircraft are completed and have flown off their test periods we will redraw everything and package up our concept. Both our aircraft will fly for less than \$10,000 at this stage we have purchased our engines, instruments, propellers, wheels, tyres, 99% of the construction material buckets of rivets and lots of bits and pieces and are a fair bit short of our budget so in this regard everything is fine.

At the moment we have the following parts built on two aircraft:

WINGS: Tip to tip. Three wing sections which contain three piece spar, three piece rear spar, 48 ribs nose and rear three sets of top, bottom and nose skins flight controls and main landing gear including wheels tyres and brakes.

FUSELAGE: Largely completed from firewall back. On gear (tricycle) with completed fin, rudder, horizontal stabilizer and elevators.

We started on the main spars a week before Narromine and it will take another two months or so. I hope but who cares as we are designing as we go some areas are fast, other's are slow.

We physically stress tested my wing. We got it up to 4.5g when the rear spar support collapsed and the wing crashed to the ground with 1100kg of weight on it. Apart from a little damage to the rear spar of my centre section the wing assembly suffered no damage. At no time during the test did the wing assembly groan or have any ripples or buckles in it. Don and I removed repaired and replaced my rear spar in four hours. Although we only physically put 4.5g on the wing we know by its performance and the stress analysis we have carried out in accordance with all the u-beaut! aviation formulas that it is good to an ultimate of 6.6g we are more than happy with the result.

The end result will be a single seat all metal aircraft that is safe, simple to build, attractive to look at, and a realistic cost.

PS We are too busy designing and building to write too many stories.

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MINUTES OF MEETING - 7TH JULY, 2003

CHAIRMAN Mike Smith meeting opened 8.02 p.m.

MINUTES Moved Bevan Dryden, 2nd Don Mellow.
That minutes that appeared in Newsletter be accepted. Passed.

PRESIDENT REPORT The Poker Run on Saturday 5th July, 03 was enthusiastically supported with 21 Aircraft getting involved. The event was won by Peter Freeman, Cessna 182.

The Fly-in on the following day Sunday 6th July, 2003 was also well supported with an attendance at Watts estimated at over 20 Aircraft.

More than eighty souls enjoyed each others company at the Christmas in July bash at the Tooloolawah Pub on Saturday Night, at which the raffle for the propeller clock was drawn. Won by Gus de Latt and returning to the Q.U.A. \$1,189. Well Done.

Mike and members present congratulated Richard and Glenda for their efforts in organising the week-end. Richard Sweetapple for providing the propeller clock, Robyn and Tanys for the delicious soups and all the others who contributed to a very enjoyable week-end.

TREASURERS REPORT. At the end of financial year the bank balance is slightly in excess of \$16,066. Moved Richard Faint 2nd Lloyd Salisbury that the report be accepted. Passed.

SOCIAL DIRECTORS REPORT Glenda announced that Boonah will hold their B.B.Q. on Saturday 27 & 28 . An Airshow will be held at Archerfield on 5th to 7th September.

A.U.F. Bevan reports that John Washbrooke is no longer Technical Manager of the A.U.F. He also drew attention to the goings on between C.A.S.A. and the politicians, also featured by Middo in the July A.U.F. Magazine.

GENERAL BUSINESS Richard estimates electronic transmission of the newsletter by email as being 95% successful.

Trent Dickson won the raffle for the paint stripper.

THANKS To Robyn Salisbury for supper.

MEETING CLOSED 8.25PM

Annual General Meeting.

The QUA Annual General Meeting is to be held on 04th August 2003 in the SAAA Club Rooms, Archerfield commencing at 8:00PM.

The normal monthly meeting will be held following the closure of the A.G.M.

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