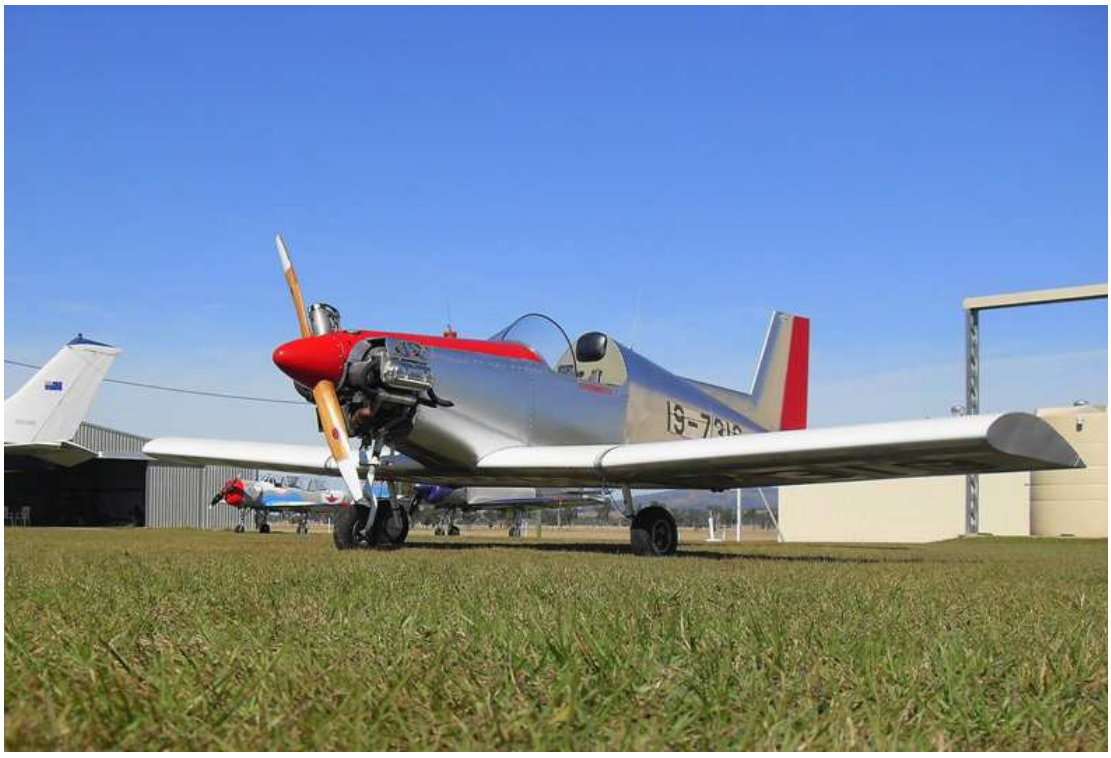
Brisbane Valley Flyer

July - 2015

www.wattsbridge.com.au
www.bvsac.org.au

Watts Bridge Memorial Airfield, Cressbrook-Caboonbah Road, Toogoolawah, Q'ld 4313.



Bob Hyam's Teenie 2 at the Watts Bridge All-In-Fly-In on 30 May.

Wayne Petty (President)	0418-602-560	Richard Faint (Secretary)	0412 317 754
Priscilla Smith (Treasurer)	07 3206 3548	Rob Knight (Editor)	0400 89 3632

The Faint Corella – The One and Only

A report by Rob Knight

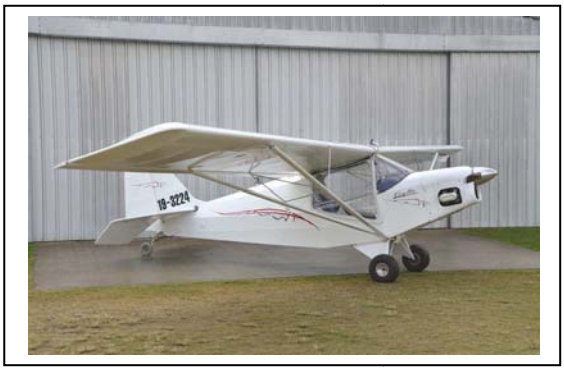
A good friend of mine, Glenda Faint, is a perfect hostess; smiling, gracious, and neat, and no-one would suspect that she is also an aviatrix of some renown. In fact in their hangar at Watts Bridge, sits her very own creation – the one and only Corella.

The Corella is a pert, little single seat taildragger, bright, shiny, and white, designed and built by Glenda. It has sat for a while, waiting, as she recovers from a number of health issues and I believe that her efforts and success deserve some publicity. Recently I sat with Glenda and asked her about her creation. This is her story.....

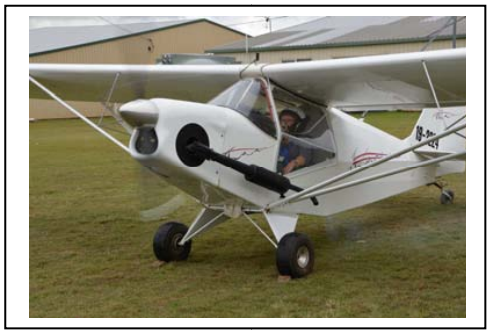
"In the early 1990s, when I was working as a Anaesthetic Technician and Theatre Nurse at the Mater Mothers Hospital, I had a Lea Kestrel which is like a single seat Thruster. I flew it happily for many hours but came to feel that I would like something a little more upmarket. I looked around for a replacement but nothing in the used single seat *for sale* lists seemed any better than what I had.

I was down at Murwillumbah looking at a second hand aircraft with Cec (Cecil) Lea – the designer of the Kestrel that I owned. We were looking at a Rans S4 when Cec suggested that I could build something for myself that was every bit as good as what we were looking at and have some of the specific characteristics that I wanted built into it. One of these was to get away from Dacron covering and go to a conventional stits fabric material. This also would also give me better paint possibilities.

My build started at Cec Lea's home, in Seven Hills, in Brisbane. We sketched out the basic outline of what I wanted on a wooden table top and that held all our initial sketches. Later we produced proper drawings that carried the necessary details and transferred them onto a conventional paper medium as the table-top refused to fold well. When the frames were ready, we trailered them to our place in Goodna to continue work on them.



Bill Whitney was also involved in the development of the design. He carried out the various inspections required on the frames prior to covering and also supervised the proof-loading of my wing to +6 and -4 G. I should mention that I built 3 wings for the Corella. It only uses two of them; the third was to do the proof loading test.



I started in 1995 and it first flew in 2000 so it took me five years. It was test flown at Watts Bridge. Richard, my husband, did the majority of the test flying of it but Don Mellow also did some for me. Don had also been a great help to me during the spray painting of the fabric. He was quite skilful at this.

From the test flying surprisingly few changes emerged. A little bit of tweeking perhaps but the only item of note is that I built a set of new and heavier undercarriage frames. Because the machine is short it sits rather nose high. The heavier

On short finals

undercarriage allowed me to shorten the legs a little and improve the forward visibility when taxiing, taking off and in the landing roll-out when the tail is down.

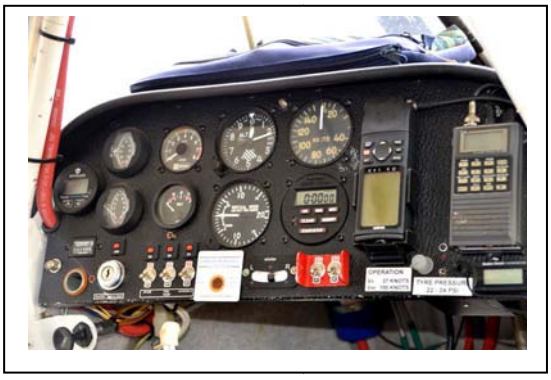
The Corella's logbook records a total of 320 hours on both the engine and the airframe. Most of those hours are mine, probably 310 of them I would suspect. The engine runs very well – I put a fan cooled oil injected Rotax 503 DCDI in it and it has worked wonderfully. I have never had trouble starting it nor any other worries with it. I included a battery and electric start in it. Armstrong starters are not very ladylike.

I fitted brakes. They work off a squeeze lever on the stick. Both wheels brakes simultaneously, there is no individual brake to help steer it. I never found that it needed individual brakes. I designed it with generously sized control surfaces so the slipstream and rudder give plenty of steerability. I never fitted a park brake, either, so it needs chocks.

On take-off it certainly can swing, especially as the tail comes up. Propeller torque is light because of the lower power so is scarcely noticeable. With the high nose blocking your view, you need to watch for the swing and keep straight as the tail rises, so take-offs can keep you busy.

The Rotax swings the prop anti-clockwise from the cockpit unlike aircraft with conventional engines whose props turn clockwise. This causes it to swing right on take-off and so needs left right rudder to sort it out. But as the Kestrel also had a Rotax, it never was an issue for me.

The design Vy, the best rate of climb speed, is 52 knots so I use 50 to 55 knots for comfort. I like to keep the Rotax cool so an extra few knots is not a disadvantage. It needs just a little left rudder to keep the ball centred whilst I am climbing and the high nose does require me to turn frequently to clear the area ahead.

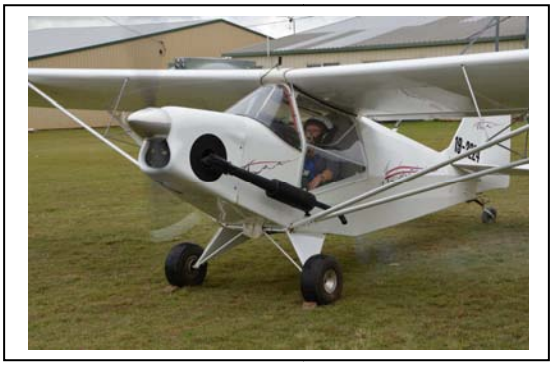


The Corella's panel

I can cruise level at whatever RPM I like above about 5400 but there is a sweet spot at 6200 RPM. At this setting everything feels right and the ASI indicator reads 70 to 75 knots. This gives me about 15 litres per hour fuel burn. As the wing tanks each hold 45 litres, my endurance is about 6 hours nil reserve. I recall flying from Watts Bridge to Moree without refuelling so it has a good range.

When it comes to turning, yes, there's a need to be active with your feet to keep it balanced during entries and exits. The rudder is not heavy but the nose will wander out of the turn if you don't make an effort to counter the adverse yaw. If you don't use rudder it then makes holding the correct nose attitude to maintain height in the turn more difficult because yawing when you are banked changes both the bank attitude and the nose attitude.

The wing has a constant Clark Y section with a constant chord root to tip. I chose this combination particularly with stalling in mind and it worked. In a basic stall she begins a slight buffet at just under 40 knots indicated and you can feel the stall in the stick at about 37 knots. At the stall onset the nose sags but there is no wing drop. Power-on stalls are recaps of the basic stall although the right wing may dip a little. But it's so gentle it's barely discernable.

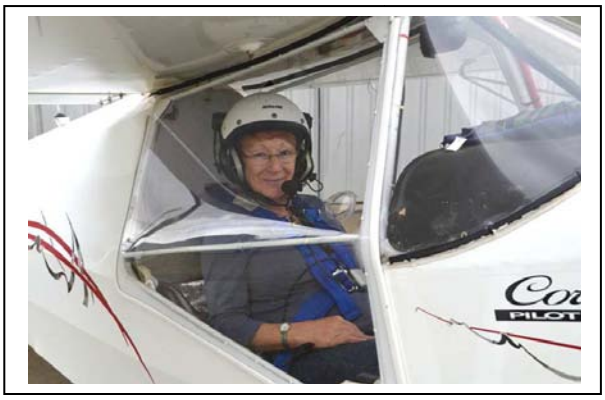


I always give her a good warm-up

Recovery is instantaneous with the stick going forward and little height is lost if power is re-established without delay. No I have never spun it.

Its lift/drag ratio is about 8:1 so it won't win gliding competitions. Its glide angle is naturally steep which is why I don't need the complexity and weight of flaps. Its best glide speed is 50 to 55 knots. I have good controllability in that speed range and I can see over the nose easily. With the large control surfaces I designed into it, it side-slips extremely well which further negates any need for flap.

Approaches are like any other aeroplane. Wheeler landings are easy – there's plenty to see and judge over the nose. However, 3 point landings can be challenging. In keeping with many other tail-draggers, in the float the rising nose obscures the runway ahead and the only way to judge the hold-off height and to keep straight is to look along the side of the nose. The Kestrel had a high mounted motor and forward visibility was never an issue. Also, like any other tail dragger, rudder is most necessary to keep straight as the speed slows in the landing roll so your feet work pretty constantly.



My favourite portrait

I'd not want to make any changes after all the hours we have flown together. What I have is what I wanted. I wanted it to be unique and it is. I wanted it to have a pristine white paint job on super-smooth fabric and the "wet look' insignia 2-pack paint I used is still as bright and wet-looking as it was the day that I did it. Probably it's most un-endearing feature is its lack of forward visibility with the tail down but so what? That's a taildragger characteristic I tolerate to get all the other good features I wanted in my design. For me, she's been perfect.

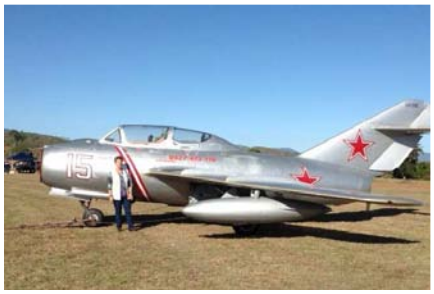
However, now I have decided that my beloved Corella and I must part. Injuries that I sustained in my accident leave me uncertain as to whether I can fly again, and she just sits in the hanger waiting. I need to draw a curtain across this part of my life and get on with it. Therefore I am selling my Corella on an as-is-where-is basis. She is currently registered so all the new owner will need to organise is a Level 2 inspection and arrange with RA-Aus for the registration changeover. With the Corella I will also be passing to the new owner all the build photos and details that I took when I built it." I am asking $12,000,00 or something close to that.

See my advertisement on the back page of this newsletter

The Old Station Fly-In

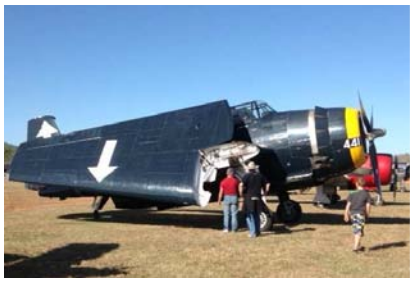
By Wayne Petty

Recently Lyn & I heard about a Fly-in near Raglan and also that there were 3 local sky-ranger ninjas flying up from Watts Bridge. As we had limited time, we took our slide on camper as the camping there is said to be superb. The others that flew up certainly had a something to talk about considering the winds they encountered.



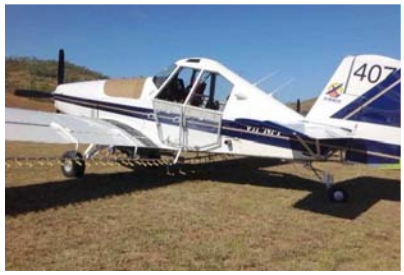
A Russian visitor – a Mig.

The Fly-in, held on the Old Station property, raises money for Capricorn Rescue Helicopters. It is well run and caters for all types of entertainment. The Old Station owners, along with the help of Callide Flying Club, and a vast numbers of sponsors, have donated over a quarter of a million dollars over the years. The camping area is vast and facilities are excellent. Their activities cover a wide range, including a truck show, vintage cars, vintage tractors & dozers, lots of vintage steam engines along with a very well organised air display.



The Grumman Avenger.

Friday night! After a well presented dinner, an ABC reporter interviewed several guests, including Matt Hall. He was very approachable and answered questions from the audience. It was during this time a loud explosion went off in the background. Those who had previously visited Old Station were reminded of things to come as it was used again for the wake-up call each morning. I'm sure some would have had to get out of bed.



An Air Tractor crop-duster.

Saturday had the tractor and dozer sled pulls. There was a variety of air displays during the day, The Avenger and P 28's growled down the runway to strut their stuff, and displays by the crop dusters, hugging the undulating terrain. Matt Hall and Paul Bennett did impossible things with aerobatics, and a lone Roulette gave a nice display. Saturday night catered for every one with teams auctioned off, for chainsaw fence post cutting. They were followed by crosscut saw teams of men, mixed, and women. Along with huge fires, food, music, and drinks available, there were lots of large framed truck prints auctioned off. The night was rounded off with a great display of fireworks and people continued to enjoy the music and fires whilst catching up with old friends. Sunday morning I was able to join in an informal meeting of questions and answers with the CEO and President, along with assistant Tech Manager from RAA. Judging the trucks and cars continued, along with more air show entertainment. The planes started to exit from Old Station from early morning, and by mid morning the Ninja's were airborne for an exciting flight home. The winds were even stronger on Sunday, and I was glad to be going home at my leisure in our camper. I recommend to all, if you haven't been to Old Station, then certainly mark it on the “to do” list.

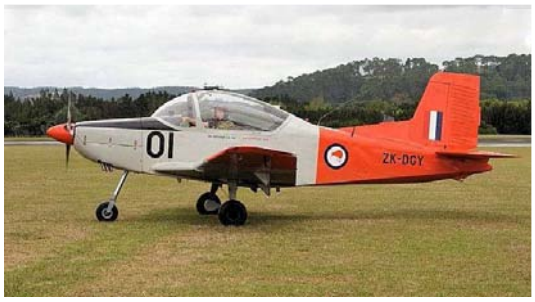
Lyn and Wayne

The CT4 - An Old Love Affair

By Rob Knight

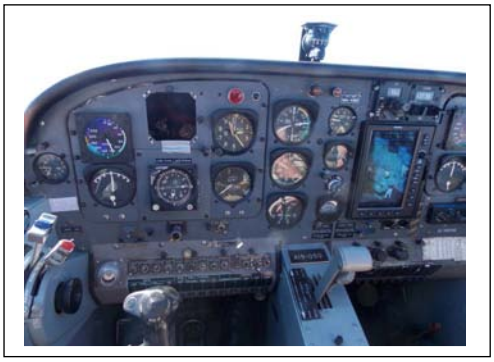
In the 1980s I worked for several Aero Clubs and, because of my NZ-CAA Low Level Aerobatic Display approval, was generally given charge of the aerobatic training for Club Members.

I used several types – Cessna 150 and 152 Aerobats, Citabria's, Victa 100s, 115s and T3s, and the only civil registered CT4 in the world at that time - CT4/A - ZK-DGY. Operated by AESL (Aero Engine Services Ltd) at Rukuhia in Hamilton, the manufacturer of Victa's and CT4s, DGY was their type demonstrator and available for lease by training organisations for short periods.



ZK-DGY – now in the Warbirds museum at Ardmore, New Zealand.

Waitemata Aero Club, my then employer, had a strong aerobatic following in the membership and it hired DGY several times whilst I was employed with them. I was the deputy CFI at that time and my boss was not particularly enthusiastic about aerobatics so, on the first occasion that we hired it, I was sent off to Hamilton for a checkout on type by the renowned Cliff Tait, the AESL ferry pilot/instructor who flew all the CT4 delivery flights from New Zealand. CT4s were never crated – they were always flown to their delivery destinations.



Bravo Delta's panel.

I recall no difficulty with the aircraft. It was powerful compared to the usual light aircraft on Aero Club flight lines but I was already current on PA28 Arrows, Mooneys and Beechcraft A36 Bonanzas based at Ardmore. I recollect the checkride as being a short take-off, a basic stall, a wing-drop stall and a spin. Back at the field we did two circuits and Cliff signed me off. I returned to Ardmore practicing aileron rolls most of the way.

It was the power that made the biggest difference compared to the T3's, the otherwise best aerobatic trainers I used. With the CT4's Continental IO-360D 210 HP engine, it was far superior. Almost as significant was its enhanced elevator control. It s larger surface and greater elevator travel allowed inverted spinning which I couldn't carry out in other trainers because of insufficient pitch control to stall inverted.

My last logged CT4 flight was July 09 1987, at RNZAF Wigram, the then New Zealand Air Force training base near Christchurch in the South Island. I was an invited participant in a week long joint RNZAF/RNZAC (Royal New Zealand Aero Club) CFI/Instructor clinic. The entire gamut of flight training (except for weaponry) was reviewed and it was fascinating to compare notes as a civil (usually) instructor with our military counterparts. There were obviously differences but the exposure of each to the other was very thought provoking and beneficial to both sides.

Then came yesterday – 21 July 2015: almost exactly 28 years later and another country and another life. I was visiting Watts Bridge airfield and had just finished flying with a friend, Richard Faint, when

Ron Dunn knocked on the door. Like Richard, Ron has a hangar at Watts Bridge where he keeps his pride and joy. He had come to offer me a seat in his CT4/B for a half hour local flight.

Yankee Bravo Delta was a later version CT4 than those I had previously flown, but 28 years suggested my memory might have dulled some. Bravo Delta had a different electric flap control and different trim indicator but, surprisingly, all else quickly settled into looking totally familiar. The throttle quadrants were the same as was the instrument layout except for Ron's missing A/H which was out of service. Ron had already pre-flighted so we strapped in and closed the hatch to the first lock to hold the canopy but allow refreshing air into the cockpit after start-up.

The CT4 has a fantastic roll rate.

Using the checklist we ran through the drills and the motor rumbled into life. The exhaust system gives these aircraft a throaty rumble from the cockpit when they are idling and the memories continued surging back. The oil pressure rose on cue and the beat settled into an easy rhythm as the engine and oil warmed. We released the brakes and rolled off to meet the runway.

The run-up was as uneventful as one would hope and the prop cycled as it should. Then, after completing the DVA's, there remained no excuse not to burn up the runway.

Back in the air even more memories came rushing back, the feel of the stick and the side quadrant throttle: the liveliness of the controls and the precision with which you could fly this aeroplane. It was sheer delight.

Superb visibility

We pulled the climb power to 25 "Hg and set 26 00 RPM. That was different to the RNZAF – they set 25/25 and that did for everything. You can do that if your pockets aren't paying the fuel and maintenance bills. With just a smooth quiet hum we climbed out over Lake Wivenhoe.

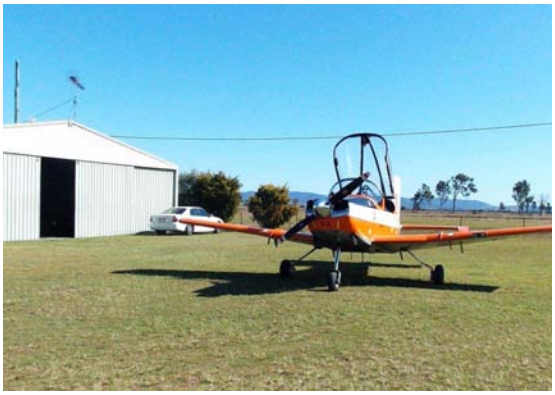
We levelled off at 2500 feet; setting 20"Hg and 2600 RPM for an economy cruise. This gave us about 105 knots on the ASI. As always, the visibility was perfect in almost every direction except straight down. The stick was alive in my hand, just ready and waiting for my command.

The turns were easy. CT4s exhibit little adverse yaw and require no great skill to balance aileron drag compared to other light aircraft. 45° turns just happened and the VSI stayed glued to '0'. I tried a 60° bank without adding power and maintained height – just suffering the fall in airspeed which decayed to about 80 knots. After leveling out again I tried a 60° bank, adding no power and pulling it tighter until the stall broke. The recovery was immediate with relaxing the stick and I continued the turn with around 150 feet of height lost. All still good.

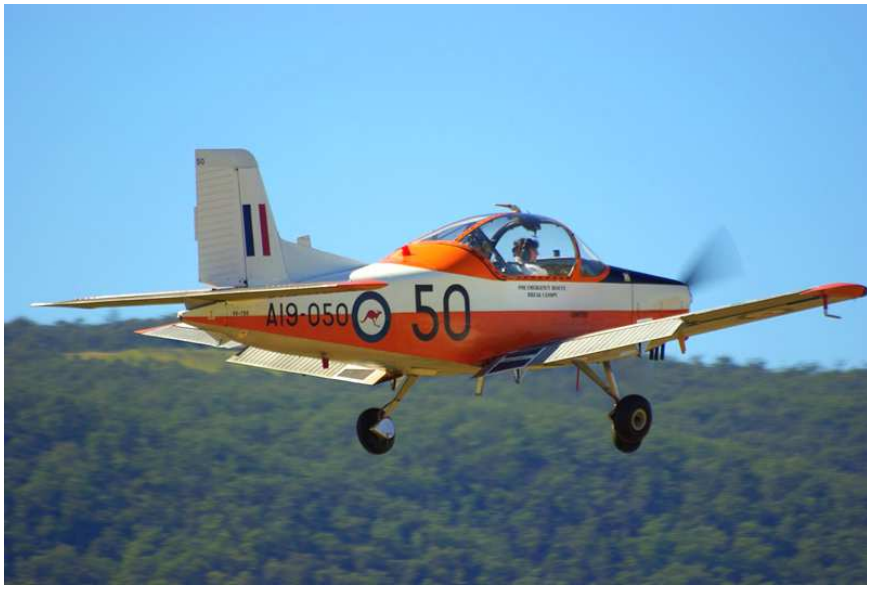
We returned to Watts in a powered descent and joined crosswind for 12. Downwind checks are standard and were quickly completed. We turned base where I set the prop to full fine. Base was flown at 80 knots and maintained until short final where I let the speed fall to 65. After a brief float the mains touched with a reassuring rumble and we were down.

We taxied back with the engine grumbling quietly to itself and it was all over. We shut down and all that was left was the mournful whine of the gyro's in the turn coordinator winding down. I eased my headset off and looked at Ron. I think that he understood my smile.

My love affair with the CT4 was on again -just don't tell my wife! Those 28 years had vanished.



Back at Ron's hangar.



CT4/B VH-YBD Airborne on 12 at Watts Bridge.

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REMINDER – 2015/16 Club Fees due 30/06/15

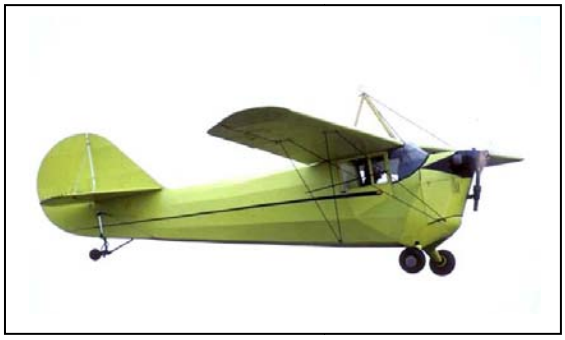
Look out for your BVSAC Renewal of membership invoice in the first week of July. Please note that, if you have changed your email address in the last year, please advise the BVSAC treasurer 'at treasurer@bvsac.org.au ' or phone 07 3206 3548.

FLY-INS Looming

July 04	Watts Bridge	Poker Run – fun and entertainment
August 08 & 09	Maryborough	Frazer Coast Fly-in

Mystery Aircraft (July Issue)

What's this?



Mystery Aircraft (Last Issue)

This mystery aircraft is a Rollason Condor D62b derived from a Druine Turbi – the two seat variant of the Druine D31 Turbulent;

Congratulations to Mal McKenzie for identifying this type. They are still popular in the UK as a basic trainer.

Try to stay in the middle of the air. Do not go near the edges of it. The edges of the air can be recognized by the appearance of ground, buildings, sea, trees and interstellar space. It is much more difficult to fly there.

The probability of survival is inversely proportional to the angle of arrival. Large angle of arrival, small probability of survival and vice versa.

BirdsiPhotography

Want an air-to-air or ground shot of you and your dream machine? It's easy to arrange and will cost less than you might think. Grab the phone and contact Peter Davies or Rob Knight on 0400 89 3632,
or email kni.rob@bigpond.com

- Fly-in - all aircraft types welcome
- Lunch, Dinner & Drinks options
- Fying Competiton – Win an iPad!
- Seafood Festival Transport
- Underwing Camping or Hotels

FRASER COAST
RESIDENTIAL AIRPARK

Hervey Bay
AIRPARK

Please Click Here to download the complete Invitation Brochure

Please Register Interest or RSVP by 24th July 2015

This will assist us with food and organising Buses for the Seafood Festival

Date: Saturday 08/08/15 to Sunday 09/08/15
Time: 08:00 onwards
RSVP: 24/07/2015

Call Brad on 0416 00 7777
or email info@frasercoastairpark.com.au

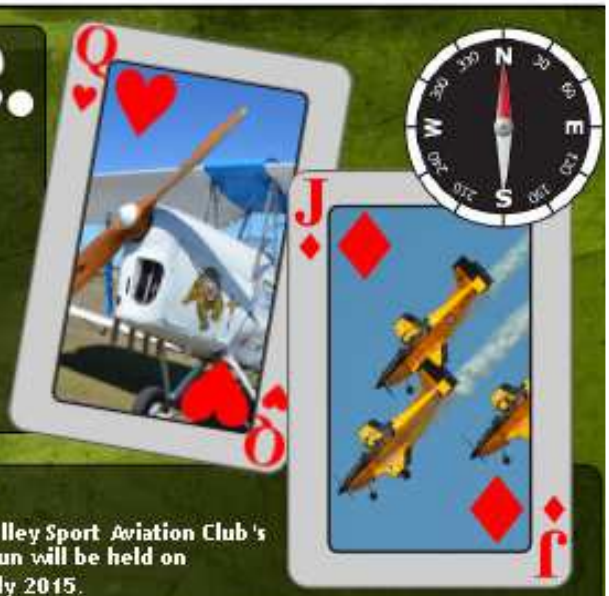
Please RSVP by 24th July 2015

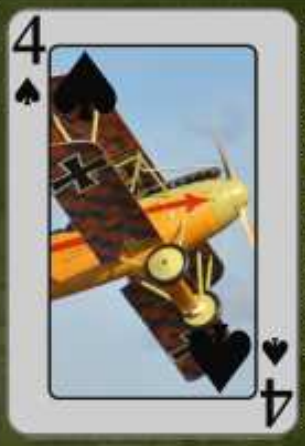
This will assist us with food and organising Buses

Date: Saturday 08/08/15 to Sunday 09/08/15

Time: 08:00 onwards

B.V.S.A.C. FUN FLY POKER RUN 2015





THE EVENT

The Brisbane Valley Sport Aviation Club's Fun Fly Poker Run will be held on Saturday 4th July 2015.

Starting time is 9:00am and finishing at 2:00pm.

It doesn't matter what you fly– Recreational, Homebuilt, General Aviation, Gyroplanes – we would love to have you join in the fun !!

THE GAME

Fly to any three of the participating airfields, Bradfield, Kilcoy, Gatton Airpark or Mc Carron's Field and collect an envelope which contains a playing card from underneath the primary windsock.

DO NOT OPEN ANY ENVELOPES UNTIL REGISTERING AT THE BVSAC CLUBHOUSE – WATTS BRIDGE.

You can start anywhere you like and go to the airfields of your choice in any order that suits you.

Then just fly on to Watts Bridge Memorial Airfield where you pay your entrance fee of $5.00 and register your hand.

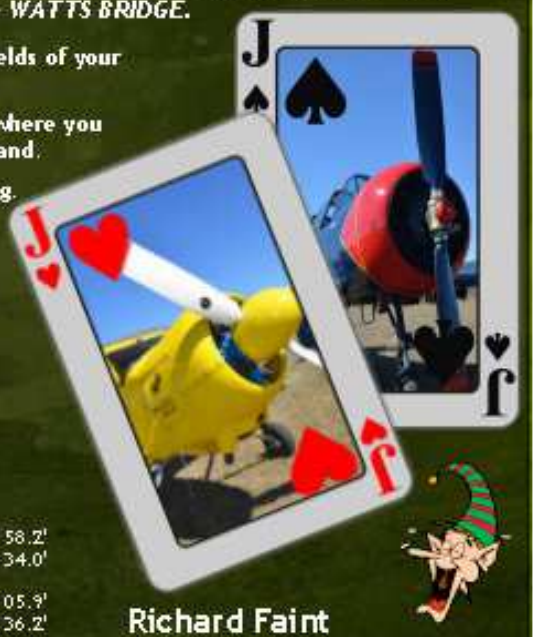
BBQ, Drinks and Snacks will be available all day long.

THE WINNER

The organizers will have drawn two cards at random prior to the start of the game. These cards will complete the five card hands for all players.

The best Poker Hand wins the Trophy for 2015.

THIS IS FUN FLYING AT ITS BEST, SO COME ON AND GIVE IT A GO !!



AIRFIELD LOCATIONS

BRADFIELD	S 27° 25.1' E 152° 24.1'	KILCOY	S 26° 58.2' E 152° 34.0'
GATTON AIRPARK	S 27° 35.4' E 152° 15.4'	MC CARRON'S FIELD	S 27° 05.9' E 152° 36.2'
WATTS BRIDGE	S 27° 05.9' E 152° 27.6'		

If you have any questions : please contact :

Richard Faint
Phone: (07) 5427-0816
Mobile: 0412-317-754
Email: richard@auav.org

Keeping up with the Play (Test yourself – how good are you, really?)

1. In regard to nosewheel aircraft and wheel-barrowing, select the most correct?
   A. Wheel-barrowing only occurs on landing.
   B. Wheel-barrowing can occur any time the nosewheel is loaded and the main wheels are not.
   C. Wheel-barrowing cannot occur in a high power situation.
   D. Wheel-barrowing occurs only in a crosswind situation.

2. Slots ahead of the ailerons will improve aileron control at the stall. How does this function?
   A. The slot increases washout and delays the stall until a high angle of attack is reached for the wing sections ahead of the ailerons.
   B. The down aileron and the slot combine to provide a much higher C_L which delays the stalling angle around the aileron until a higher angle of attack is achieved.
   C. The slot prevents the stall occurring until a high angle of attack is attained than the inboard wing sections. Thus, at the stall, the inboard sections are stalled but the ailerons and the wing sections ahead of them remain unstalled so they function normally.
   E. The aileron is empowered by the slot and, enjoys added effectiveness at the stall and at angles close to it.

3. A pilot purchases an aeroplane to operate off his rather short airstrip. To improve his take-off and climb performance what option would be most likely to assist?
   A. Apply carburettor heat for take-of because a richer mixture provides more power.
   B. Use less than full throttle to prevent cavitation behind the propeller.
   C. Use a higher octane rated fuel.
   D. Use a finer pitched propeller.

4. Why does an aeroplane side-slipping on approach steepen its glide path?
   A. Because its wing span is reduced.
   B. Because the drag increases.
   C. Because the nose is at a lower attitude.
   D. Because the lift decreases.

5. From the following calculate the compass heading.
   True heading 080, Variation 11W, Deviation -2

   A. 089°.
   B. 079°.
   C. 081°.
   D. 087°.

ANSWERS: 1. B, 2. C, 3. D, 4. B, 5. A.

If you have any problems with these questions, call me(in the evenings) and let's discuss it! Ed.

--ooOOoo—

BRISBANE VALLEY SPORT AVIATION CLUB Inc

MEETING LOCATION: Watts Bridge Memorial Airfield – BVSAC Clubrooms
MEETING DATE: 6th July 2015
MEETING OPENED: 10:09AM

MEMBERS PRESENT: 13
APOLOGIES: John Innes, Mal McKenzie, Mike & Priscilla Smith, Scott Meredith, Mary Clarke,
David Ratcliffe, Peter Ratcliffe, Ian Ratcliffe
VISITORS: Nil
NEW MEMBERS: Cindi Gosden, Kent Gosden
MINUTES: April 2015 meeting of the BVSAC Inc.
Proposed: Richard Faint Seconded: Bill Oates
Acceptance motion carried.

PRESIDENT'S REPORT: No report.

SECRETARY'S REPORT: Richard Faint outlined the inward and outward mail for the month.

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TREASURER'S REPORT: In her absence Priscilla Smith provided a written report, read to the meeting by the Secretary.
The report provided a financial statement summary and advised that the BVSAC ING account balance is $544.99 and that the BVSAC NAB account balance is $2,332.01
The report provided financial documents for those members requiring additional details.

Priscilla has undertaken a review of the hangarage charged by BVSAC.
The last review was 7.5 years ago and since then the CPI has averaged 2.7% P.A.
The BVSAC Committee has resolved to increase the hangarage by $5.00 per month annually until the CPI increase has been caught up.
This will take effect from the 1st July 2015

WBMA REPORT: Bruce Clarke thanked all who made the All-In Fly-In a success with special thanks to Richard Faint for organizing the event.
Bruce outlined the work experience being undertaken by the Toogoolawah State High School and the $20,000 grant that has been allocated for the building of an aeroplane by the work experience group. At this stage the type of aircraft has not been decided.

Wayne Petty was thanked for his work repairing fences around the airfield.

BUSINESS ARISING: Nil

GENERAL BUSINESS: A big vote of thanks to President Wayne Petty for procuring and laying the vinyl flooring.

Several members commented on "the look" of the email containing the membership invoice, thinking it was spam email. The thought was that some members may have deleted it without looking at the contents.

The Fun Fly Poker Run is to be held on the 4th July, which would be the normal meeting date.
Catering and other organizational details were discussed.

Richard read a message from Mike Smith about the up-coming RA-Aus Elections and encouraged anyone who wanted stand for a position to do so. Mike mentioned the re-writing of the Constitution and his preference that there be a smaller board structure.

GUEST SPEAKER

Peter Biddle (QVAG and WBMA Member) presented a thoroughly enjoyable talk about the advanced flying training he recently undertook in the Alaskan Winter. Peter had great slide show and several video's to accompany his presentation.

NEXT MEETING:

There will be no July Meeting due to the running of the Fun Fly Poker Run. The next meeting date will be 01st August 2015 in the BVSAC Clubrooms Watts Bridge at 10:00AM
A BBQ lunch will follow the meeting.

MEETING CLOSED:

There being no further business, the meeting was declared closed at 11:30AM

A BBQ lunch was held after the meeting.

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See Glenda's Corella story, page 2