

BRISBANE VALLEY FLYER

OCTOBER - 2014

BRISBANE VALLEY



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

SPORT AVIATION CLUB INC

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



Is it a bird? Is it a plane? NO - IT'S A SLING!
Taken at the August Gathering Of Eagles Fly-in at Watts Bridge.

Neil Bowden (President) 07 3200 3821
Priscilla Smith (Treasurer) 07 3206 3548

Richard Faint (Secretary) 0412 317 754
Rob Knight (Editor) 0400 89 3632

- Brisbane Valley Flyer -

The Evector Sports Star Max (A pilot report by R. Knight)

It was one of those classic early spring days – the sky covered with wall-to-wall blue, not even a white puff on the horizon to mar it. I was at the Gathering-of-Eagles fly-in at Watts Bridge Memorial Airfield and waiting for Diego Rondinone to arrive from Heck Field. I had known Diego for several years and he had recently acquired a 2009 Evector Sportstar Max to replace his A22 Foxbat. I had seen his Sportstar around and it looked pretty good and he was planning to show me just how delightful it was.

His arrival at around 1030 was just another amongst the many and the baton marshals directed him to the remaining parking area at the outer end of the farthest field. We met as he walked back to the crowd and decided to discuss the flight over a cold drink. Whilst sipping an old coke, Diego told me that he bought the aircraft in 2013 from its first owner, an Englishman who was returning to the UK. It had now logged a bit over 400 hours so it was barely run in.

Refreshed, we returned to the park and as we walked towards the aeroplane it looked absolutely



Diego checks the oil before flight.

stunning, its immaculate burgundy and white paint glistening in the bright sun and highlighting the Evector unique colour scheme. Diego cracked on that he had spent several hours cleaning the canopy and underneath its belly for today's flight. He popped open the canopy and started the pre-flight.

With plenty of gas and oil, and the aeroplane safe for flight in all other respects we climbed in taking care not to step on the seats. When the straps were tight he ran through the start-

up checks with me and then we waited for the onlookers to move back after we called "clear prop". The oil pressure rose as expected then, with the headphone on and the radio frequency checked, we called our intentions and began to taxi for the holding point. Here I noticed the first issue with the aeroplane – it has a big beautiful bubble canopy but a rather high nose and instrument panel. This reduces visibility forward in taxi and indicated a definite need for clearing turns when taxiing amongst a crowd of spectators or when approaching markers and runway lights. Also I noticed the throttle is not easy to use. It is a standard type push/pull system but with a vernier screw locking knob for fine adjustment. However, the lock is too coarse for easy use. Later this also proved difficult to use when formation flying in the number 2 position as short bursts of throttle were very difficult to apply accurately. I have used similar throttle systems fitted to other aircraft without effort but this one was not so simple. However, the aircraft responded well to power changes, rolled easily on the mown grass, and had excellent brakes. Steering was direct and positive through the mechanical linkage with the rudder pedals.

The run-up was conventional; it is powered by a Rotax 912 ULS with a Woodcomp in-flight adjustable pitch propeller so apart from checking the propeller pitch adjustment function, the run up was completely conventional. Diego ran through the pre-take-off checks with me and these, too

- Brisbane Valley Flyer -

were quite normal except for checking the pitch was in full fine. The runway was clear as was the approach so, after the prerequisite radio call, we entered runway 30 and rolled.

My first inclination, as the prop disappeared in a vanishing blur, was to check the RPM because there



Fantastic visibility.

was so little noise and vibration I needed to confirm the RPM rise. Everything checked out sweet and we accelerated rapidly. With the standard take-off flap setting of 15° set, it was only about a 300 metre run before the nose was lifting. Then the wheels stopped rumbling. We established 65 knots for V_y and climbed away. The VSI settled on 720 fpm – a little less than the book value but we were close on MAUW and the day was pretty warm.

This aeroplane climbs nose high – a direct result of the low aspect ratio wings and the high

instrument panel. The limited forward visibility made it imperative that I did clearing turns as I climbed out in the busy circuit. We vacated from the crosswind leg and cleared the circuit heading south east before leveling out at 2500 ft. The ASI settled comfortably on 90 kts at 4300 RPM with the pitch still set to full fine. At 5000 rpm and the pitch coarsened to give 23 in Hg manifold pressure the ASI indicated 115 knots which gives a dramatic appraisal of the advantages of an in-flight variable-pitch propeller to such an aircraft. We did the HASSEL checks before returning power and pitch to 4300 rpm and full fine respectively to run through the basic exercises.

Lookout was great. The big bubble we were sitting in provided heaps of view all around except straight ahead. The aircraft had very little vibration and was very quiet. Inside the cockpit the panel had a surfeit of glass instruments and I noticed that I lost sight of the readings periodically because of reflections off the glass faces. At most times this wouldn't be an issue but because critical times do occur I prefer to be old fashioned and have conventional instruments.



A real smooth machine.

Stalls were pretty much a non-event. The controls became very light at low speeds and there was little aircraft response to the stall. In the basic stall the nose was already high and the aircraft settled slowly, nose high, with the IAS reading around 32 knots. There was no buffet or any form of visual or audible stall warning – just the VSI and altimeter unwinding. As an ex instructor, for a training aeroplane I would like to see something more definite in advance of the stall that would sow the seeds of disquiet and alarm in a slow witted student. Recovery was instantaneous with forward stick.

- Brisbane Valley Flyer -

With flaps lowered the nose was lower at the point of stall, but not as low as I expected, a result no doubt of the split flaps. With power and flap applied the stall was just as innocuous as the basic stall, there was no tendency to drop a wing and the aircraft needed little rudder to keep it straight. Stalls were impressive by their very non impressiveness.

Turning was easy. The controls were all light and beautifully harmonized. The small amount of residual aileron drag was easily countered by judicious pressure on the relevant pedal. If the controls were released in the turn the nose swung ever so gently towards the lower wing and the aircraft became established in a spiral -all perfectly normal. Whilst maximum rate turns were easy to enter I noticed an airspeed decay similar to a PA28-140 – another result of the low aspect ratio of the wing. At entry the controls



Light, lively, and very fast.

were light and very responsive but, after the speed decay in the turn, the exit roll rate was very noticeably reduced. For the maximum rate turns I entered each at 90 knots and used full power and a 60° bank. In every turn, left and right, the speed had decayed to around 58 knots by the 180° point.

A cruise descent back to the airfield showed quickly just how slippery this aircraft is. With the same local area cruise power of 4300 RPM and fine pitch we had a 350 fpm descent at 122 knots. Very



Diego enjoying himself.

quickly we were making the pre-requisite call and joining cross-wind. Then we were downwind, making number one for a touch and go, and I carried out the downwind checks. The level flight airspeed was now back down to around 90 knots: the descent had ceased and we were maintaining height at 1300 feet. I turned base intending to carry out a short landing.

But this is still one quick little aeroplane. With full flaps lowered on base, and holding just a trickle of power, I was still a too high; I had been fooled. The aeroplane was even more slippery than I had allowed and I

needed to slip height off to get the low approach profile that I wanted. The runway end markers passed a couple of feet under us and we settled in a nice soft touch down at around 30 knots indicated with the nose so high I had to look down the side. This loss of forward visibility is an issue usually confined to taildraggers but was very noticeable in this aeroplane as well. With the nose held up for aerodynamic braking and brakes applied it would have easily fitted into 400 metres of the runway with the few knots of headwind component that was present. We applied full power and the

- Brisbane Valley Flyer -

aeroplane responded immediately with good acceleration and little swing. With all the flaps hanging dirty, it quickly came off the ground and slowly accelerated towards the V_x . I bled the flap off and, on reaching the magic figure, tidied the aircraft up and continued to accelerate to V_y for the climb out.

The second landing was a regular, non-specific full-stop, just to see how it felt and performed at normal speeds and with reduced flap. There were no surprises – it floated noticeably further but the nice nose-high touch-down was gentle and with only light braking the nose settled and we pulled over and vacated via the third runway exit.

All in all this is a lovely little aeroplane. It is very fast, very sophisticated, and has very

comfortable seating that would make longer cross-country flights rather more comfortable than some other light aircraft. On the down-side, there were a couple of issues apart from the throttle I mentioned earlier, I noticed the fixed seats made the switches a bit of a stretch for a short-arms, and the rudder pedal adjustment should be checked on every pre-flight for correct setting. The headroom was excellent and I think that I would use a cushion if I was to be flying it regularly – just to improve my view ahead in all stages of flight.

The Sportstar Max has a maximum take-off weight of 600 KG with a minimum pilot crew weight of 54 kg. Its tanks hold 118 litres of useable fuel which, at a burn rate of 19 litres per hour, should last 6 hours without a reserve. This is one impressive aeroplane.

As a private aeroplane to fly around for one's enjoyment, this is a very, very good option. I asked Diego what he would take for it and he responded that it felt like a million dollars and he liked a good mark up so I should make him an offer of that million and a fair bit more.



A very clean machine



- Brisbane Valley Flyer -

ATC Joke Causes Boeing 777 to Abort Landing

An air traffic controller's attempt at humor has caught the attention of the national media as well as the FAA after his joke forced a Delta 777 on approach to Hartsfield-Jackson Atlanta International Airport to go around.

Delta Flight 630, en route from Detroit, was flying at just over 1,000 feet in Atlanta airspace after receiving clearance from the tower to land on Runway 27L. In addition to repeating the clearance back to the controller, the pilot said, "We do not have a gate yet so you might wanna figure out some place to park while we sort it out."

The controller responded by saying "Delta 630 go around," adding moments later, "I'm kidding Delta 630. After you land, I've got no one behind you. Expect to exit right."

The crew, however, was not amused. The pilot responded that he was on the go, and the flight later landed without incident. The FAA says it is currently investigating the incident.

Moral of the story – There's no place for humour in ATC instructions. If the pilot hadn't gone around he could have been seen to be negligent OR failing to comply with an ATC instruction. Either could be career shattering!

Happy flying.

----- ooOOoo -----

Unusual Avionics AD Hits Boeing 737s and 777s

Major airworthiness directives related to aircraft systems aren't all that uncommon, but a new AD issued by the FAA yesterday that calls for the replacement of the primary flight displays in certain Boeing 737 and 777 airliners raises eyebrows not just for what must be replaced but also the reason why.

The FAA on October 1 posted AD 2014-20-06 related to all Boeing 737-600, -700, -700C, -800, -900, and -900ER series airplanes and 777 airplanes with Phase 3 Honeywell displays. The directive was prompted by testing reports on certain Honeywell PFDs that exhibited susceptibility to radio interference from Wi-Fi frequency bands.

The FAA says Wi-Fi signal interference could cause a dangerous loss of display information. More and more airlines are being equipped with Wi-Fi as a means for passengers to stay connected in flight. Signals from onboard Wi-Fi equipment are typically benign, not causing interference with the avionics in most cases. It is not known at this time exactly how the Wi-Fi interferes with the displays.



Hartsfield-Jackson Atlanta International Airport's ATC Tower (Photo credit: J. Glover)



- Brisbane Valley Flyer -

According to the AD summary, the Honeywell Phase 3 primary flight displays must be replaced with Phase 1, Phase 2 or Phase 3A display units, and for certain replacements, new database software must be installed as well.

The AD affects around 1,300 airplanes in all.

Luscombe Silvaire 8F: A Classic LSA



The new/old Luscombe
Photos by Bill Cox

A Luscombe enthusiast revives the type with a larger Continental engine and a lower gross weight

If you're a Luscombe lover (and most any pilot who's flown the type is), the new/old Luscombe 8F must strike a resonant tone. These days, in fact, the old Luscombe design has taken on a new persona, that of an LSA.

Yes, it's true the little Luscombe Silvaire has been on-again/off-again for several decades, but it appears the type certificate has finally come to rest in the hands of John Dearden,

president of Luscombe Silvaire Aircraft Co. (www.luscombe-silvaire.com) in Riverside, Calif. Working out of Riverside's Flabob Airport, Dearden, his wife and a group of dedicated Luscombe fans are making a brave attempt to revive what many regard as Don Luscombe's work of art.

If you're not familiar with the Luscombe, you're in for a treat the first time you take the stick and guide the 8F up into the sky. In the late '30s/early '40s class of entry-level two-seaters, the Cub, Champ, Taylorcraft, Porterfield, Cessna 120/140 and Luscombe were regarded by many pilots as the least expensive and most enthusiastic methods of transitioning from ground to sky. Of those airplanes, the Luscombe Silvaire was one of the most respected; often considered a standout, it possessed better performance, improved handling and even a limited inertia-driven aerobatic capability. The original Luscombe sported a series of 65 to 90 hp engines, and its performance was generally a step ahead of the competition. In the '30s and '40s, Luscombes were regarded as the sports cars of lightplanes.

Today's Luscombe 8F Silvaire LSA is essentially the same airplane as the original, yet improved in the respects that count. It's still an all-aluminum airplane, and that may mean the most to some pilots who still believe aluminum is the best material for light aircraft. Unlike composite materials, the Luscombe's all-metal construction is impervious to UV radiation, cold temperatures and severe heat. This means there's no limiting airframe temperature that might result in delamination.

The original Luscombe was certified under the old CAR 4a regulations, and today's airplane is even more robust. "We have nothing whatsoever against composite structure," says Dearden, "but the final 1950s Luscombe airframe was done in aluminum, and we saw no reason to change what wasn't broken. The airplane's design load limits exceed the current utility standards, so they're far ahead of LSA limits."

- Brisbane Valley Flyer -

The original production Silvaire's 90 hp Continental is long out of production, and the new engine of choice is the 100 hp Continental O-200. This is essentially an updated version of the mill that powered the Cessna 150 for so many years. It's rated for the same horsepower as the Austrian Rotax 912 used on so many other aircraft in the light-sport category.

By regulation, an LSA's gross weight is limited to 1,320 pounds, and the empty Luscombe Silvaire weighs between 830 and 880 pounds, depending, as usual, on avionics and equipment options. With a 30-gallon fuel capacity, that leaves a payload between 310 and 250 pounds with tanks topped. Baggage goes aboard behind the two main seats and is limited to 75 pounds.



The 'bare essentials' panel

Obviously, you'd need to leave some fuel behind in order to fly the 8F with two passengers. That's not a particular problem, as the O-200's burn is only about 5 gph, and 20 gallons will provide you with enough endurance to stretch your limits, if not the airplane's. Figure 3.5 hours of endurance plus reserve, about as long as many pilots are willing to spend in a little airplane

anyway. If you're flying solo, you can top the tanks and endure for six hours.

The Silvaire's performance was always a little ahead of the competition back in the '40s and '50s. Today, it's fairly close to what you'll see from the more modern, super-efficient, composite designs. Climb is about 900 fpm at gross, obviously better if you're flying solo. The stated service ceiling is 17,000 feet, so the airplane is easily capable of scaling the tallest mountain in the Lower 48. I didn't fly Dearden's demonstrator to tall heights in the hour I spent with the airplane, but it showed plenty of enthusiasm for climb at low level.

If you're willing to high-jump to medium altitude with the 8F, say 6,000 feet or more, you can expect cruise speeds of 120 mph or better. To some extent, high-altitude cruise defies the nature of the airplane. It's a perfect machine for chugging along low and slow, admiring the view and smelling the cows. If you're willing to ease back on the power, you can realize an extra 30 to 45 minutes of endurance and extend your range perhaps another 50 to 70 nm.



The all-aluminum, all-American Silvaire's minimalist design philosophy is apparent on its exterior and interior

The wing is fairly large (140 square feet), and the airplane's big flaps, levered in with a manual lever mounted on the forward cabin roof, assure good low-speed control. Stall speed is down around 44 mph with full flaps deployed, so you need have no fear about slow approaches.

Luscombes have always been known for good short-field numbers, and the new Silvaire scores well in leaping off and plunking back onto abbreviated runways. The stall is so low that the airplane will levitate off a hard surface runway in 600 feet and land back onto the same surface in 500 feet. In other words, you could easily operate the 8F from any convenient grass field or local dirt runway.

- Brisbane Valley Flyer -

FLY-INS Looming

08 October 201	Caboolture	Great Kepple trip
11 October 2014	Murgon (Angelfield)	Angelfield brekkie fly-in.
	Gympie	Fun Nav Fly Navigation Day
17 October 2014	Sunshine Coast	SCAC Friday Clubhouse BBQ & Bar
18 Oct 2014	Straddie	Breakfast Fly-in. Nth. Stradbroke Is.
	Watts Bridge	Early Aviation Seminar
25 October 2014	Kingaroy	Airshow and Fly-In

Mystery Aircraft (October Issue)

What's this?

This month's mystery aircraft was selected and sent in by Connal Martin.



Mystery Aircraft (September Issue)

The mystery aircraft in the September 2014 Issue is a 1947 Macchi MB-308, built in Italy.



Jokes for the Month

Basic Flying Rules:

1. If its wings have more airspeed than the fuselage, it's surely not safe to fly in it.
2. If 62% of aircraft accidents occur in VFR conditions, then it must be safer to fly everywhere IFR.
3. Aeroplane propulsion comes from the exhaust gasses from the engine. Plug the exhaust pipe and you won't even have enough power to taxi.
4. Mother-in-law's advice – fly low and slow.

- Brisbane Valley Flyer -

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

- From the following select the most correct statement.
 - Acceleration: is a body's rate of change of motion.
 - Equilibrium is the state where the resultant of all the forces acting on a body is zero.
 - Inertia is the tendency for a body to remain at rest or in uniform motion.
 - A & C are correct.
 - A, B, and C are correct
- About which axis is an aeroplane laterally stable?
 - The normal axis.
 - The lateral axis.
 - The pitch axis.
 - The longitudinal axis.
- Which of the following most correctly describes a stall?
 - A condition of flight where low forward speed provides too little airflow over the upper surface of the wing to create adequate lift to support the weight.
 - A condition of flight where any increase in angle of attack will cause a reduction in lift and the centre of pressure to move aft along the chord line.
 - A condition of flight where insufficient flap is extended to provide an adequate C_L to support the aircraft's weight.
 - A condition of flight where the nose attitude and angle of attack are too high to provide adequate lift to support the aircraft's weight.
- Lift acts:
 - Parallel to the chord line.
 - Perpendicular to the chord line.
 - Parallel to the relative airflow (relative wind for Americans).
 - Perpendicular to the relative airflow.
 - Along the line of total reaction.
- The type of stability that ensures an aircraft initially commences a return to its original flight path is known as which of the following?
 - Inherent stability.
 - Positive stability.
 - Dynamic stability.
 - Static Stability.
 - Directional stability

ANSWERS: 1. E, 2. D, 3. B, 4. D, 5. D.

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

BRISBANE VALLEY SPORT AVIATION CLUB Inc

MINUTES OF THE 06 09 2014 GENERAL MEETING

MEETING LOCATION:	Watts Bridge Memorial Airfield – BVSAC Clubrooms
MEETING DATE:	6 th September 2014
MEETING OPENED:	10:25AM
MEMBERS PRESENT:	11
APOLOGIES:	Peter Ratcliffe, Ian Ratcliffe, David Ratcliffe, Rob Knight, Sandy Walker, Scott Meredith, Max Bain, Wayne Petty, Peter Freeman, John Innes.
VISITORS:	Nil
NEW MEMBERS:	Nil
MINUTES:	August 2014 meeting of the BVSAC Inc. Proposed: Mike Smith - Seconded: Mal McKenzie - Acceptance motion carried.
PRESIDENT'S REPORT:	Neil thanked Wayne Petty for his ongoing work around the clubrooms including the installation of bird proofing and finishing work in the bathroom area. Neil also thanked those who helped Caroline after she had a fall at the previous meeting. Neil commented how successful the Gathering of Eagles was both as an event and also as a fund raiser by drinks sales for BVSAC. Neil thanked all those who contributed on the day. Neil encouraged members to consider taking on an office bearing role at the AGM.
SECRETARY'S REPORT:	Richard commented on the incoming and outgoing BVSAC correspondence including: Promotional material for the Gathering of Eagles and the Warwick Fly In. Correspondence with Watts Bridge regarding adhering to the speed limits on internal roads. Correspondence with Watts Bridge regarding mower volunteer training. Distribution of the BVSAC Brisbane Valley Flyer newsletter.
TREASURER'S REPORT:	Priscilla provided a financial statement summary and advised that the BVSAC ING account balance is \$534.58 and that the BVSAC NAB account balance is \$1330.40 Priscilla tabled financial documents for those members requiring additional details.
WBMA REPORT:	WBMA President Bruce Clarke gave a brief report on the Gathering of Eagles – Australia Fly In and what a success it had been with in excess of 130 aircraft in attendance. Bruce went on to say that the 2014 Gathering of Eagles was a trial run in anticipation of a more ambitious two day Gathering of Eagles for 2015. Bruce thanked all the volunteers and especially the marshals who contributed to the GoE.

- Brisbane Valley Flyer -

BUSINESS ARISING:

Richard advised that Watts Bridge training of the volunteer mowers will commence when the grass has grown sufficiently to allow this to happen. Richard also explained the "Drive Neighbourly" requirements for who use the internal roadways at Watts Bridge.

GENERAL BUSINESS:

Glenda Faint initiated a discussion to formally thank all those who made a major contribution towards the construction and fit out of the BVSAC Clubrooms. It was agreed that this will take place at the annual Christmas Party.

Mike Smith led a lively discussion working through the Quiz Questions in this month's newsletter. In the end all the correct answers were found. Everyone enjoys this part of the meeting and learns a little from it.

NEXT MEETING:

The next Monthly Meeting and also the Annual General Meeting will be held on the 11th October 2014 in the BVSAC Clubrooms Watts Bridge at 10:00AM
A BBQ lunch will follow the meetings.

MEETING CLOSED:

There being no further business, the meeting was declared closed at 10:50AM
A BBQ lunch and a "Happy Birthday" for Glenda Faint were held after the meeting.

--ooOOoo--



Do you think you can handle it ??