September 2024
Number 185

Airtourer Association

Newsletter

Dedicated to the preservation and continued airworthiness of
Victa and AESL Airtourer and derivative series aircraft

IN THIS EDITION

Contents

Cover: VH-FVV, Angela Stevenson and Tony Self's Airtourer T6, wishing to fly as the sun sets at Yarrawonga on the Murray.

From the President

by Deb Evans (Victa 115, VH-IOF)

Greetings from sunny Cairns in this second edition of the new look newsletter.

Thank you to all the members who let your committee know they were extremely pleased with the new Newsletter format. It is full of interactive information with easy to print PDF format option.

Our social Zoom meetings are proving popular as they all allow all members to interact with others without the tyranny of distance being an obstacle. We had members from the UK to NZ attend the last one. Mark 11 September on your calendar for the next one.

The President's Fly-in to Goondiwindi (18th – 20th October) is in the final stages of planning. The weekend will combine tours of the local area as well as aviation information/education.

If you are a current member with membership up to date, I thank you for your ongoing support.

Our Airtourer Association membership renewal period runs from July to June the following year. Membership renewals were due on the 1st July although invoices were delayed this year while an accounting system was implemented.

If you are unsure of your membership status, please email secretary@airtourer.asn.au.

The association is a not-for-profit organisation run wholly by unpaid volunteers. Membership renewals help to cover essential costs the association incurs. We strongly encourage you to renew your membership to support the association. Again, thank you to all that have renewed and to all that are in the process of renewing.

The 2024 Victa Aerobatic Trophy held by the New Zealand Association of Women in Aviation Inc at Ashburton on the 2nd June 2024; it is wonderful to see the Trophy is still being contested since its inception in 1965. See more: NZ Victa Trophy 2024 (p6).

The Committee has had questions raised by some members regarding the insurance policies the Airtourer Association holds.

The Association holds two insurance policies: Directors and Officers Liability (D&O insurance) and Hangarkeepers Liability. The reason we hold these two insurance policies is as follows:

D&O insurance policies offer liability coverage for the Association managers to protect them from claims which may arise from decisions and actions taken as part of their duties.

Hangarkeepers Liability “Section 1” insurance provides cover for what is known as Public Liability, similar to most other social or sporting organisations. This protects the association for claims in respect of bodily injury or death, loss of, or damage to the property of others caused by negligence in the conduct of our gatherings, including air meets (pre-arranged gathering of aircraft, pilots and passengers for recreational or social purposes and may include members of the public).

Today’s increasingly complex legal environment means associations face a heightened prospect of liabilities and litigations, often driven by “adverse news events.” The Hangarkeepers policy addresses the aviation exclusions usually found with other third party policies. Without Hangerkeepers Liability insurance, we could not hold any event without putting the Association at risk.

Blue skies and tailwinds.

Deb

Our 2024 Committee:

Stu Hilsberg, Tony Self, Angela Stevenson, John O’Halloran, Deb Evans, and Doug Gould.

Editor	Tony Self c/- Airtourer Assoc P.O. 778, Tewantin, QLD 4565 Australia	Mobile Email:	See Membership List editor@airtourer.asn.au

Articles for inclusion in the Newsletter should be submitted directly to the Editor at the contacts listed above. Contributions and or advertisements for the next issue need to be received by 5 October 2024. Advertisements are free for Association members.

THE LATEST
NEWS

Ric and Ron Davies' Airtourer playing with the clouds in WA

Movements

Aircruiser back in the sky!

The Aircruiser (VH-MVR) is back in the air! This rarest of rare aeroplanes, and its engine, have had thorough overhauls, since it changed hands in 2023. You'll start to see MVR at Association events in the very near future. Congratulations to Mon Gillett and Jon Pels for getting this magnificent machine back where it belongs.

NZ Victa Trophy 2024

For decades, the New Zealand Association of Women in Aviation (NZAWA) have been awarding the Victa Aerobatic Trophy for their annual open entry aerobatic competition. This year's winners were Trish Stephens (1st place), Bianca Barbarich-Bacher (2nd), and Carmen Haybittle. Trish, from Tauranga Aero Club, started flying late, and earned her PPL at 50, and then qualified for her aerobatic rating at the age of 61. That was 16 years ago. She won the Trophy in 2023 as well!

Trish Stephens, Victa Aerobatic Trophy winner 2024

New lick of paint for TPY

Always well-presented, Victa 115 VH-TPY, owned by a Gympie syndicate, is getting a new coat of paint. This aeroplane has had the same registration and same colour scheme for the past 60 years.

Major Birthday

Longstanding member Pat Peak celebrated her 90th birthday in style at the Temora Aviation Museum on 25 February.

A very spectacular cake featuring a Spitfire was much admired. (Before being consumed.)

Happy Birthday Pat, and may you have many more!

STOP PRESS! Australian Aviation Awards 2024

The winner of the Australian Aviation *Industry Association of the Year* Award for 2024, announced on 29th August, was the Australian Women Pilots' Association. The AWPA have many years of association with Airtourers, from the founder Nancy Bird-Walton to the present day.

Aerobatic Championships

The Queensland State Competition was held at Watts Bridge from 21 to 25 August. In the distant past, Airtourers were competitive in some categories. Even as recently as 2006, Lee Gordon-Brown and Scott Patterson competed in an Airtourer in the 2006 Victorian championships. And Peter Cooney was another Airtourer competitor at the NSW championships the following year.

The Victorian State Championships will be held in Tocumwal from 11 to 14 September. Wouldn't it be nice to have an Airtourer competing again?

In New Zealand, Ross Brodie started competing in the NZ Aerobatic Championships in a Tiger Moth around 2016, before moving to Airtourer ZK-DAC - although he seems to have moved onto a Pitts S-1S. Iain Macphail has since competed in DAC. Murray Rogers has been very successful in the NZ Sportsman category for a few years now, competing in CT-4B ZK-JMV.

Kiwi members should also mark 26 February to 3 March 2025 in the calendars for the NZ Nationals at Hoods Aerodrome in Masterton.

For Sale
Victa Airtourer 100 VH-GBS

Airtourer VH-GBS. Good condition.

- Total time: 5040
- O-200 Engine to run: 1017

Located Northam, WA. Reluctant sale due to loss of licence.
Asking $36,000 ONO.
Contact Claude on 0438 101 334, or at claude@earthrounders.com

Corner of History

Air Pacific Airtourer

By Airtourer Association Historian, Tony Self (Airtourer T6/24, VH-FVV)

Yes, that Air Pacific. Fiji's national airline. (OK, it's now called Fiji Airways, but we still remember Air Pacific, don't we?)

Believe it or not, Air Pacific Airways operated an Airtourer 115, VQ-FBD out of Suva-Nausori airport. The story is a typically rich Airtourer story!

Victa Airtourer 115 number 151 was built in Bankstown in 1965, and delivered to Auckland Flying School as ZK-CMB. The colour scheme was a stunning blue and white with chequerboard rudder. It only lasted there for less than two years before it crashed and suffered significant damage.

By then, however, AESL had taken over production. The wreckage was sent to the Hamilton factory, where the aircraft was rebuilt as R151. A buyer was found: Air Pacific Ltd.

A group of flying enthusiasts in Fiji had been trying for years to get an aero club going, but lacked (a) money for an aircraft, and (b) an instructor. Around this time, Fiji was on a timetable for independence from Britain. Its first airline, Fiji Airways, had been acquired by Qantas and was being transformed into a multinational regional airline. It had recently been renamed Air Pacific (operating Herons, DC-3s and HS-748s). All of these happenings came together in a happy happenstance. The Suva boss of the airline, Pat Macassey, offered to buy one or two Victas for the hopeful flyers, and further offered to find an instructor. Not willing to let this opportunity fly by, the group formed the Fiji

Flying Club. One of its foundation members, Tom King, an ex-RAAF World War II instructor, offered to stand in until a full-time instructor came on board.

The Fiji Flyers included movers and shakers Tom King (the Bank of NSW's Fiji manager), Vijay R. Singh (the Minister for Social Services), Adi Samanunu Cakobau (daughter of the paramount chief of Fiji), and several members of the Ragg family (owners of the Northern Hotels chain),

And that's how the Victa, now registered VQ-FBD, ended up with Air Pacific. Fiji Flyers chartered the aeroplane from Air Pacific initially, then bought it from Air Pacific in 1971. They continued operating it until the club was disbanded in November 1985.

	~~VQ-GKG, VQ-GKQ.~~		
DQ-FBD	Victa Airtourer 115	R151	10.71
	Ex VQ-FBD, ZK-CMB. Fiji Flying Club, to Screwair 1.72, to Flight Services Ltd 10.77. Current.		
DQ-FBE	Douglas C-47B	15699/27144	10.71

	~~departing Fiji 14.4.71. Named "Na Yecata".~~		
VQ-FBD	Victa Airtourer 115	R151	3.68
	Ex ZK-CMB (rebuilt). Air Pacific Ltd, leased to Fiji Aero Club, to B.Gee 5.71, to Fiji Flying Club 3.6.71 and re-regd DQ-FBD.		
(VQ-FBE)	Registration believed to be intended for a second Victa Airtourer 115 for Air Pacific but not taken up. Late allocation of marks to the Baron VQ-FBE may tend to confirm this supposition.		
VQ-FBE	Beech 95-E55 Baron	TE-783	1.70

Airtourer 115 at the AESL factory in Hamilton, following a rebuild and all painted up ready for delivery to Air Pacific. Photo: Colin Burrows

But the story doesn't end in 1985. The Victa (by now in the post-independence registration DQ-FBD) to the Tonga Defence Air Wing as a maritime patrol aircraft. But before it could be commissioned, the idea was quashed, and it was ten years later when the Air Wing was established with a more suitable Beech 18. (Although never operated, the Airtourer holds the honour as Tonga's first military aircraft purchase.)

The Fiji Airtourer's final colour scheme (taken in September 1984) before being sold to the Tonga Defence Air Wing. Photo: Tony Arbon

The Victa eventually turned up in New Zealand, and was last advertised as a restoration project in 2009. Have you seen this Airtourer since? If so, please contact the Airtourer Historian (historian@airtourer.asn.au). This story could get even better!

Did you know?

You may have heard about the nose-gear assembly suspension being a modified Ford Anglia unit? Well, there's Holden bits in all models of Airtourers as well. The handbrake handle is from the FE Holden.

Call for Ideas - 50th Anniversaries

First RAAF CT-4 Airtrainer - January 1975

Airtourer Association - founded August 1977

Although 2027 sounds fair-distant, it is going to creep up on us unless we keep our eye on the calendar!

It was in August 1977 that the first meeting of the Airtourer Association was held at Bankstown. The first official fly-in was to Griffith in January 1978. The Committee would like to cast around for ideas for how to celebrate the 50th Anniversary… we have a virtual goldmine of clever members, and we're hoping that someone will come up with a nugget! If you have any ideas, please send them to editor@airtourer.asn.au.

But if 2027 is coming up quickly, there's another 50th anniversary coming up in 2025!! Whoa! That's only a few months away now, so the need for ideas is more urgent!

In January 1975, Cliff Tait (now a Life Member of the Airtourer Association) delivered the first CT-4A for the RAAF from New Zealand to Australia. **That means 2025 will mark the 50th Anniversary of CT-4 Airtrainers operating in Australia.**

So, brains trust! Ideas please? Send them to editor@airtourer.asn.au.

Puzzle Time!

Last Newsletter contained two photos of Luigi Pellarini designs. One was the magnificent Transavia PL-12 Airtruk. What was the other design, and how is it "related" to the Airtourer? Answer on back page.

More Bathurst Convention in Photographs

Photos: Beryl Marshall (The Sheriff, previously VH-MRF)

Michael Monck at the Convention Dinner.

Ross McBride shows off his Best Presented Airtourer award.

Jan and John O'Halloran sniffing the barrels while being glared at by Tony Self and Lyn Butler.

Moobel morning tea – a mixture of 'locals' and 'visitors'.

BATHURST
2024 CONVENTION

My Story - Papa Go Hard (059)

by CT-4B VH-PGH

My first life started in Hamilton, New Zealand, where I was built for the first RAAF order for 37 NZAI CT-4A Airtrainers. The constructor numbers for this order ran from 019 to 063. My number was 059.

I came off the production line in November 1975, and was immediately readied for my ferry flight across the Tasman. I was given the temporary registration ZK-EAV for the trip across the ditch. Cliff Tait was the pilot. He flew most of the Airtourer and Airtrainer delivery flights. The trip took 12 hours and 35 minutes.

EAU	Airtrainer	N.Z.-Australia	10 Dec 75	11 Dec 75	12.45	1
EAV	Airtrainer	N.Z.-Australia	15 Dec 75	15 Dec 75	12.35	1
EAW	Airtrainer	N.Z.-Australia	28 Dec 75	3 Jan 76	15.34	4

I started my RAAF career at 1FTS at Point Cook in January 1976, in the dark green and orange colour scheme, and was assigned the serial A19-059.

The Point Cook Flying Training School at Point Cook was closed down in 1993, and many of the CT-4As were sold at auction. For some reasons, there was some issue with my sale at the May 1993 auction, but was nonetheless sold on 28 July 1993 to Airtourer Association member Paul Cary as VH-AGH. By that stage, I had been repainted in the orange and white “Fanta can” scheme. In March 1998, Paul re-registered me as VH-PGH. I went to a number of Airtourer events.
(This is me on the right at an Association event in 1974, as VH-PGH.)

The role of 1FTS in the RAAF’s pilot training had been taken over by BAe Systems, BFTS, based at Tamworth. The company had purchased 12 brand new civil-registered CT-4B aircraft from Pacific Aerospace (as NZAI had become) in 1991 for this purpose, but by 2011, needed more. Rather than buy new aircraft, BAe Systems bought three of the old CT-4As, and rebuilt them to CT-4B standard. I was one of the aircraft “re-birthed”.

In 2013, I re-emerged as a CT-4B, resplendent in an experimental blue-and-yellow livery, still as VH-PGH. I worked at Tamworth until the second retirement of the CT-4s in 2019, with the closure of BFTS. I was one of 31 - yes, 31 - Airtrainers in a formation flight over Tamworth at the final “Parrot Party”.

But my second life as a CT-4B wasn't over by any means. In June, 2020, I was sold by BAe Systems to Julian Szaters of Melbourne, and moved to Lilydale airfield. In September of that year, I became famous for featuring on the cover of Australian Flying. In March 2021, I was the lead aircraft in an amazing mass formation of 46 aircraft to celebrate the RAAF Centenary. (There were two Airtourers and another Airtrainer in that formation.) I will be flying and looking good for many years to come. By the way, I'm now known as "Papa" (for "Papa Go Hard").

Papa Go Hard, with member Michele Schiffer's Mango (VH-PTM) in the foreground. Photo: Steve Hitchen

Start Packing for Goondiwindi!

Registrations are open for the 2024 President's Fly-in:
18-20 October in Goondiwindi on the Queensland/NSW border.

There are many good reasons to visit Goondiwindi, but none better than gathering with Airtourer and Airtrainer folk to talk planes, horses and the price of AvGas!

The airport (YGDI) is close to town with good sealed 1400m runway and a long grass crosswind. Goondiwindi is home to the McIntyre Aero Club.

Arrivals on Friday will gather at the Aero Club where refreshments will be available. Friday dinner will be at a restaurant close to the hotels in town.

GOONDIWINDI
PRESIDENTS FLY-IN 2024

On Saturday we will visit the nearby town of Inglewood. The bus will go by YGDI initially to drop off those wishing to fly, before proceeding to Inglewood, 41 nm to the north-east. The bus will then pick up the flyers from Inglewood aerodrome (YILW) before visiting the Leven K lavender farm where we'll enjoy a farm tour and lunch from their pizza oven. After dropping the flyers back at YILW, the bus will return to Goondiwindi via Yelarbon to view the silo art.

The President's Dinner on Saturday will be at the famous Victoria Hotel.

Sunday will commence with a tour of the Goondiwindi Cotton farm, returning to the airport in time for lunch provided by the McIntyre Aero Club. After lunch, a Pilot Proficiency Program presentation will be followed by flying activities.

If you fly in, why not offer a flight to one of our members who no longer has an Airtourer. Alternatively, this is an opportunity to show local pilots the great handling characteristics of Henry's design.

Those remaining on Sunday night will gather at the best Chinese restaurant in Goondiwindi.

REGISTER ONLINE AT THE ASSOCIATION WEBSITE

Calendar of Events

11 September	Zoom Social Gathering	Look for the notice in your email
18-20 October	**President's Fly-in, Goondiwindi**	See Website for details and registration form
9 - 11 November	Formation Camp, Yarrawonga	Contact Tony Self tony.self@hyperwrite.com
27 November	Zoom Christmas Drinks	Look for the notice in your email
Early 2025	Aerobatics Camp	Being planned now!
25-30 March 2025	Avalon Airshow	The Association will have a display - volunteers needed!
16-18 May 2025	Convention and AGM, Wentworth NSW	Planning underway
17-19 October '25	President's Fly-in, Tamworth	Save the date!

The Treasury

by Angela Stevenson Airtourer T6/24, VH-FVV

G'day fellow Airtourer owners and enthusiasts,

As this newsletter comes to you post-Special General Meeting, if you didn't get the chance to attend, I'd like to let you know that the 2023 financials were independently prepared (at a *very* reasonable cost) and presented to the Membership and accepted, which is great news! We can finally move on from what has been a difficult period.

In other good news, according to the 2023 report the Association's finances are sound, meaning the Treasury is pleased to pick up the banner and begin entering the 2024 data into the new system and get everything clear, concise, consistent and correct!

Annual Self Review Assessment (ASRA)

The Australian Business Register has now been updated to reflect the current Office Bearer. This means we now have access to be able to lodge an ASRA.

We have the MYOB accounting software up and running! Hooray!

Because we are now keeping the accounts up-to-date with MYOB, you may have noticed your membership fees came in a different format this year. Treasury will also issue receipts for membership fees paid via email in the form of a 'zero-balance-invoice'. I'm still catching up with this process, so give me a couple of weeks on this one. But if you pay and don't receive one, please let me know.

Issuing receipts in this manner means the Association remains compliant with both the NSW Incorporated Associations Act and the Constitution. Yay for compliance! Aviators know all about compliance, right?

Well that's it from The Treasury, happy Airtourer-ing and hope to see you all in Goondiwindi.

Co-op News

by John O'Halloran (Co-op Chair), Airtourer Super 150, VH-COI

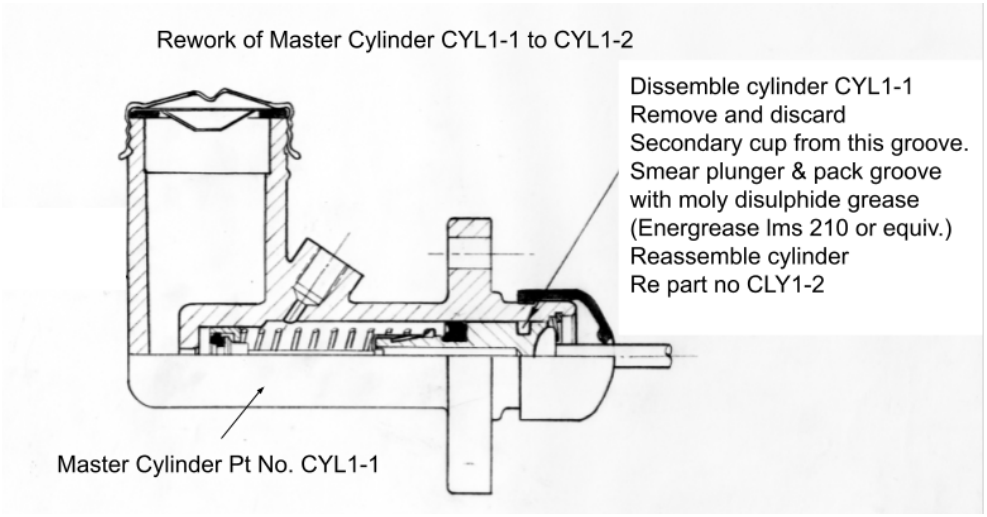
Airtourer Transparencies

Transparencies such as windscreens, canopy halves and navigation light lenses have been a long-term challenge for spares. Stan Tilley eventually found a company in NZ, Composites International, which supplied good-quality transparencies with release notes. Unfortunately, they went out of business during COVID and no one took on the acrylic part of the business. Earlier this year we heard that NZ Aero, the company that took over Pacific Aerospace, manufacturer of the CT4, has since taken over the acrylic business.

The most pressing items were navigation light lenses and we ordered clear as well as traditional red/green lenses. The shipment has just arrived and unfortunately, there are quality issues that are being discussed with NZ Aero. Nevertheless, it is reassuring to know of a supplier of these types of parts.

Airtourer Brake System Oil and Seals

Henry made extensive use of commercial off-the-shelf automotive parts in the Airtourer, including the brake system. While the master cylinder is a PBR P5201 part number, the Airtourer uses standard aircraft mineral-oil fluid requiring the seals to be changed. Once the seals have been replaced the part number is changed to CYL1 as listed in the Illustrated Parts Catalogue (IPC). Initially, this was CYL1-1 but it was upgraded to CYL1-2 with the removal of the secondary cup in February 1964.



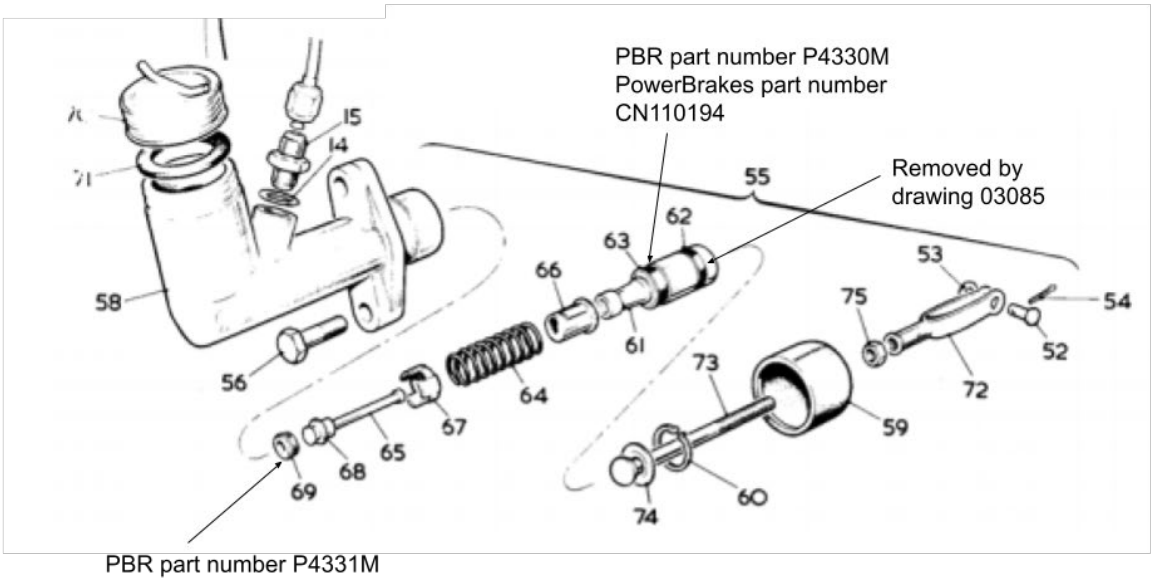
Occasionally I hear of Airtourers using automotive fluid. When a LAME replenishes the fluid following the maintenance manual, ie, using mineral-oil, the automotive seals fail. I have heard of one case where the brakes locked on and it could not taxi and another where they failed on landing.

Any change to the aircraft design, including the type of brake fluid, should be done using approved data, usually an Engineering Order. The Co-op is not aware of any EO approving automotive fluid, so if you have one please let us know. However, I would expect any such EO to require a placard to be placed prominently near the hydraulic reservoir to avoid replenishing with the wrong fluid.

One reason for changing to automotive fluid would be the difficulty in obtaining mineral-oil resistant seals. New member Alex Wocadlo recently researched the problem and found a supplier in South Australia with mineral-oil resistant seals with equivalent PBR part numbers.

IPC Reference	PBR P/N	PowerBrakes P/N
Fig 18 Item 63	P4330M	CN110194
Fig 18 Item 69	P4331M	CN110197

Other PBR part numbers are listed in the IPC Figure 18 Items 57 to 71.



Supplier

PowerBrakes
613 North East Road
Gilles Plains, SA 5086

Phone (08) 8261-0888
Web: www.powerbrakes.com.au
E-mail: sales@powerbrakes.com.au

About an Aeroplane

Member Alex Wocadlo from Macedon in Victoria has bought Airtourer 150, VH-CND. Here's what we know about this very early Victa. Aircraft number 11 from the Victa factory was the second built as a 115 (with the Lycoming O-235 engine). It was delivered to Northern Rivers Aero Club in Lismore in 1962. Since then, it has been owned by Campbell Aircraft Sales (1967), E. J. Parow (Leongatha 1968), B. L. Goode (1983), Mike Fisher, Alan Dalrymple, Niels Jensen, Andrew Taylor-Harris, and since May 2024, Alex Wocadlo. Along the way (around 1978) it was converted to a 150.

Here it is in 1968: https://www.airhistory.net/photos/0377323.jpg

And in 2006: https://www.airhistory.net/photos/0047349.jpg

Alex is an engineer, and a father (by the time you read this) of two. He will keep CND at Kyneton. He also owns a Jabiru, and is working towards his formation and aero endorsements.

See more photos of VH-CND at https://www.airhistory.net/registration/VH-CND

Merchandise

From Angela Steventon (Acting Merchandise Officer, VH-FVV)

Limited availability in stock First-in, best-dressed! **$60 each + postage**

Get yourself looking fly in these awesome Airtourer Shirts! And, yes, ladies, both the polo shirts and the ladies short sleeve shirts are 'styled' and even, dare I say, flattering - I have one of each and I really like them! Extraordinary for a club shirt.

PRO TIP: Best way to **choose your size** is to find one of your own shirts (in stretchy polo material or a cotton button up shirt) that you like that fits you the way you like it - loose or fitted. Lay it flat and measure from armpit to armpit. Then choose the right size in the shirt you'd like from the list below! Obviously, it won't be *exactly* the same type of fit, but it's a good measure.

When you're ready with your size and quantity of each item, email me: treasurer@airtourer.asn.au

As you'll see from the stock list on the following page, there's not much stock left, so don't miss out! A new order could take a while.

And, if there's anyone who would like to be in charge of merchandise (to take the load off me a little), I'd love to hear from you!

Cheers and happy Airtourer-ing!

Ange

AIRTOURER MERCHANDISE

		POLO SHIRTS			SHORT SLEEVE COTTON SHIRT	
	SIZE	CM CHEST	STOCK		CHEST CM	STOCK
LADIES	8	46	1		47	1
	10	49	2		49	2
	12	51	3		51	3
	14	55	1		55	3
	16	57	1		57	2
	18	58	2		59	1
	20	62	1		62	1
	22	64	1		64	1
	24	N/A	0		66	1
MEN'S	S	51	2		-	-
	M	54	1		-	-
	L	59	1		59	2
	XL	62	2		62	2
	2XL	66	1		66	2
CAPS (Navy with Beige brim)			3	ONLY THREE LEFT		
Exterior Stickers 9.5cm triangle base			42			
Internal Stickers 9cm triangle			13			
BADGES - metal pin type 2.5cm triangle			20			

Welcome to New Members

A very warm welcome to new members:

Mellory Aitkin. Mellory is a LAME, commercial pilot and owns her own charter company. Her father, Mark Aitken, is already a member and owns Airtourer 100 MRF. Welcome aboard, Mellory!

Murray Joel is an ex-RAAF, ex-Cathay pilot who is the proud owner of CT-4A VH-LAH (in fact, the same aeroplane he made his first solo in). Welcome Murray! Contact the Editor so that we can tell your story in the next Newsletter!

Culcha

From Beryl Marshall (The Sheriff, previously VH-MRF)

THE TOAST
I give you pilots and men that fly
Salt wind and a clear sky:
I give you planes and men that die,
High winds and an engine's cry.
I give you hearts aflame and desires
Of burning hopes when earth tires,
I give you courage borne and the pain
Cold battle and the rain,
The brimming cup and the draining
I give you journeys and the peace
And rest when struggles cease:
I give you a toast with the Gods on high
A toast to Pilots and men that fly.

(Flying Officer C.F. Gladwin-Grove 9 EFTS Cunderdin WA).

Editor's Note: Although well-intentioned, Flying Office Gladwin-Grove seems to have forgotten about the women.

RFDS Donations

The Association is making some changes to the way member RFDS donations have been forwarded. In the past, some members have kindly topped up their annual membership fees with a donation to the Flying Doctors. This method came with a few problems, and after consultation with the RFDS, we've come up with a solution.

We would like you to be just as generous, but make your donation directly using the link below:
https://fundraise-rfds-au.raisely.com/airtourer

When you make your donation this way, you can claim the contribution on your own tax return as a deductible charitable donation whilst still being noted as Airtourer Assn.

(This link is also on the Association Web site so you can't easily lose it!)

The Better Trainer:

Victa 100 vs Cessna 150

by Rob Knight (first published in Brisbane Valley Flyer)

By the very nature of the exercise, a student being trained to fly is only learning to fly that particular aircraft type to which their harnesses are bolted. However, what is intended, is that the type of aeroplane they learn in will be sufficiently compatible with other types they will fly in the future that their conversions will be simple and easy. Through ICAO, the signatory world civil aviation authorities have worked together to ensure that commonality of aeroplane flying characteristics is a primary part of aircraft certification, and thus far it has worked. For example, by convention, throttles are pushed forward, towards the nose of the aeroplane, to increase the power output from the engine(s). Should a designer/manufacturer produce an aeroplane whose fundamental engine control operates in reverse, where the throttle knob or lever is PULLED to increase power, it is highly unlikely the design would get certification with that feature.

This philosophy extends to the flight controls also. In regard to the elevator and ailerons, the control is pushed forward to pitch nose down and vice versa, and the control is pushed sideways (or rolled in the case of a yoke) in the direction of desired roll. The exception is the rudder. When a rudder bar/pedal is pressed, the nose yaws towards the side pressed, which is opposite to the previous control results. However, this is not significant as this variance is ignored and practice forces the student into a natural acceptance of the correct control application for desired result. It becomes a habit and because of these standards common across all aircraft, conversion and commonality between types is achieved

The two aircraft under review – the Victa AT-100 (aka T1) and the Cessna 150G - have fundamental differences. From the images on the next page, it's obvious the Victa is a strutless low-winged aircraft and the Cessna a strutted high wing design. The Cessna has conventional ailerons and flaps, operated by separate controls, a flying-control yoke for ailerons and elevator, and an electrically operated flap system with a stepped switch for lower and raise, and an indicator for actual flap position. The Victa, on the other hand, was fitted with flaperons, a system where the flaps and ailerons were interlinked, and operated simultaneously through a mechanical "mixer" device in the control linkage. Thus, when flaps were lowered, the whole wing training edge drooped, and a belly flap below the fuselage extended.

The ailerons and elevator were operated by a rectangular "spade" grip on a central control column, and the flaps by a three-position selector lever on the cockpit wall beside the student pilot's left knee as shown on the image to the left.

The Victa had yet another difference to more conventional trainers, the seats weren't adjustable for varying leg-lengths. Instead, the rudder pedals were adjustable on a lockable ratchet system to bring them closer to the pilot or otherwise. The reason the seats weren't adjustable was that the seat structure formed the surrounding frame for the single 29 imperial gallon (131 litre) fuselage bladder fuel tank. The tank was dippable for fuel quantity using a special, Victa-provided, curved, flexible dipstick, instead of the standard home-made broom-handle dipsticks on the Cessnas.

Victa Airtourer 100 ZK-CHC

Cessna 150G ZK-CSW

Seated in the aircraft, the Victa pilot enjoyed a cockpit width of 106.45 cm, whereas the Cessna 150 cramped the occupants into a mere 96 cm. The joke of the day was that the 150 seated one person adequately, and two people only intimately.

Cockpit visibility was also vastly disparate. The occupants appeared to sit on the Victa, with its low wing and superb, near 360-degree horizontal, and 180-degree vertical visibility through its clear Plexiglas canopy. The Cessna, billed since 1960 as having "Omni-Vision", had used the term after they inserted a rear window. Thus fitted, it did have a similar amount of horizontal visibility, but the high wing excluded virtually all vertical visual access to the sky. The Aerobat version did have two small skylights, but these were too small to have any real value in seeing other aircraft.

Looking at a relevant comparison we find the following:

Physical Specs:	**Victa AT-100 (T1)**	**Cessna 150G**
Engine:	Continental 0-200-A	Continental 0-200-A
Cruise Fuel Consumption	16.5 kg/hr (or 22.75 litres/hr)	16.5 kg/hr (or 22.75 litres/hr)
Wing Span	7.92m (26 feet)	10.21m (33ft 6in)
Wing Area	11.2 m^2 (120.56 ft^2)	14.8 m^2 (159.31 ft^2)
Wing Aspect Ratio	5.65:1	6.7:1
Wing Loading	66.82 kg/m^2 (13.69 lb/ft^2)	49.054 kg/m^2 (10.047 lb\ft^2)
Empty weight	476 kg (1050 lb)	444.6 kg (980 lb)
Maximum Take-Off Weight	748.44 kg (1650 lb)	725.76 kg (1600 lb)
Power Loading	7.48 kg/hp	7.25 kg/hp
Glide ratio	6.5:1	8:1
Cockpit Width	1.0645 m	0.96 m

Performance:	Victa AT-100 (T1)	Cessna 150G
Cruise (at 2400 RPM)	86 kias	90 kias
Vy (Best Rate of Climb airspeed)	70	67 KTAS
Rate of Climb at Vy	644 fpm	667 fpm
Glide/Approach speed	70 kias	60 kias
Take-off distance	224 m (735 ft) unconfirmed)**[1]**	225 m (735 feet (from POH)
T-O distance over 15 m	380 m (1250 ft) (unconfirmed)**[2]**	423 m (1385 ft from POH)
Landing Roll	Not given in POH except as a "P" chart calculation	136 m (445 feet from POH
Landing distance over 15 m		328 m (1075 feet from POH)
Stall speed Full Flap	46 kias	42 kias
Roll rate	110 degrees per second	Not available

[1] *From Wikipedia, not flight manual.*

[2] *From Wikipedia, not flight manual.*

With over 3300 hours instructing in Victa Airtourers T1, T2 and T3s, and in excess of 700 hours instructing in Cessna 150 and 152s, the following is my personal comparative assessment as to the quality of pilot produced by each type.

Overall, the Victa AT-100 was lighter to handle. Without doubt, it remains the liveliest light aircraft type that I have ever flown. Comparatively, the Cessna 150 was also light on the controls by other aircraft standards, but was most definitely heavier to handle, and much slower to respond to control inputs than the Victa. The control yoke in the Cessna did provide an easy path to later type conversions but in my experience the Airtourer's spade-grip left no lasting ill effects. Also, a point regularly raised against the Airtourer, was that one flew with one's right hand and worked the throttle with the left, the reverse to yoke controlled aircraft including the 150. Although the issue does alarm some converting pilots, changing hands is never a real issue except with the most truculent students and it's hard to combat determined ignorance.

The preflight was straight forward. The only significant inspection that I recall was the curved piece of soft metal bar under the tail tie-down point had to still be curved. A hard landing could cause the curve to flatten and this could indicate the rear fuselage had suffered distortion that might have changed the longitudinal dihedral angle and thus adversely affect the longitudinal stability. I never saw a straightened one on a pre-flight.

In the cockpit, after setting the rudder pedals for the correct leg length, we addressed the four-point safety harness. This was very necessary if the student was converting from another type, and instructors needed to ensure they correctly latched all straps to

the central buckle, or the loose strap with its metal tongue could flail around dangerously.

Victa 100 cockpit: Spade grip control column in centre, flap lever on left sidewall. Aircraft, left seat student/solo pilot (because of flap lever position), controlled with right hand on stick and left hand on push-pull throttle knob to left of control panel. Trim lever – silver "T" aft of the control column. Length-adjustable rudder pedals were fitted for each pilot.

Start-up procedures were in common, as were taxi and run-ups. The engine was common between the two so there were effectively no differences in engine handling. The Victa had a hand-operated brake, hydraulically acting on both wheels so no differential braking was available. The Cessna used toe-brake pedals on the tops of the rudder pedals and hydraulic differential braking was available to assist with tight radius turns on the ground.

Before take-off checks - the Victa trim was set by a slot-locking silver lever between the seats, working on a rubber bungee to the elevator system. It was marked with a take-off position and one simply pulled the lever to the left and dropped it into the appropriate slot to hold the lever in that position. The Cessna had the ubiquitous Cessna trim wheel working a metal trim tab on the elevator and a mechanical indicator marked with a take-off setting. Flaps were set to 1 notch (8°) in the Victa, with its mechanically linked lever (beside the student's left knee), and 10° with the electric flap toggle switch in the Cessna and its mechanical flap position indicator on the front of the port door frame. Sitting on the ground on a hot day, gave the definite advantage to the Cessna with its shadowing high wing, in the Airtourer, although some aircraft were fitted with overhead sun screens, hats were necessary. At this time, the bubble canopy gave the Victa pilots vastly better visibility with regard to traffic on approach to land.

Neither aircraft had an advantage on a normal take-off. On paved runways the Cessna might have had a slightly shorter roll and climb to 15 metres but generally only on hot days. The given take-off distances show little difference between the aircraft when flown properly. On grass, or with water on a paved runway, the Cessna had a definite advantage as its tires were larger and provided less drag so runway length required was generally reduced. Both aircraft were rotated on take-off at 45 to 50 kias, and both were climbed out at 70 kias.

Where a crosswind existed, the Victa was easier to handle because its low wing was less influenced by the wind effects. The Victa also had a shorter arm from the fin/keel surface aft of the centre of gravity so it suffered less weathercocking than the Cessna 150 making it easier to control directionally. There was no difference in the technique required for a crosswind take-off.

The rates of climb were similar and, apart from the restricted visibility inherent in most high-winged single-engined aircraft against bubble canopy visibility, there was little between them. The Victa had a slightly lower nose attitude for its Vy speed. Vx was seldom used except for ensuring the student knew what it was for, and the Cessna, here, was somewhat further disadvantaged by requiring its nose even higher yet than the Victa and required "S" turns to clear traffic/obstacles ahead.

Level flight training was inevitable carried out at 2400 RPM in both aircraft. In this condition, the Cessna was about 6 knots faster. However, training pilots is not an air race and this was of no consequence to pilot proficiency in any way. Maintaining level flight required quite different efforts by each pilot. The Victa, being so light and lively, needed mere fingertip pressures on the spade, whilst the Cessna yoke did need fingers around it. The actual magnitude of control movement between the aircraft for the same result was quite dissimilar. Millimetres of control movement in the Victa needed much more on the Cessna yoke to achieve the same result in nose attitude change of degrees of roll. This had the beneficial result in training pilots not to over control. Several times, when converting students to the Victa from Cessnas and Pipers the student's first attempt at an entry into a steep turn resulted in a stall in a turn – they used too much aileron, and the roll rate caught them by surprise and they snatched the stick back and we got the stall buffet. The Victa really was a finger-tip control aircraft.

Apart from the oh-so-lively controls in the Victa, the only other advantage when turning was the excellent visibility afforded by the Victa's low wing and bubble canopy.

The stall handling between the aircraft was quite different. The Cessna was very conventional in that the standard instructing patter of demonstrating the decaying airspeed with the controls becoming heavier and less responsive fitted well. However, in the Victa, whose controls were always light anyway, control pressures and aircraft control responses to any inputs, was much less discernible to the students. Another notable difference was the nose attitude in a level-flight stall – the critical angle was higher in the Victa because it had a lower aspect ratio wing. The Cessna, with its higher aspect ratio, had a lower critical angle which could be seen as a lower nose attitude when the stall break occurred. The high-pitched squeal of the reed in the Cessna's audible stall warning device occurred a few knots ahead of the buffet developing in advance of the stall break so there was plenty of warning. The buffet caused by the airflow beginning to break away from the wings and impacting the tailplane was relatively gentle and not in any way alarming. The stall break was gentle and clean, and exit/recovery was immediate upon reducing the angle of attack to unstall. Handled properly, a basic stall (no power, no flap) could be carried out with total height lost less than 100 feet on the altimeter. The Victa stall warning was an audible horn, also purloined from a motor vehicle (a Ford 105E Anglia), electrically operated by an angle-of-attack trigger on the port wing leading edge, at about half span. For some reason, the manufacturer had the warning set up so it didn't activate unless flaps were lowered, a

point that many instructors found laughable. Did Victa assume that stalls didn't occur unless the flaps were down?

The stall warning activated ahead of the developing buffet, but the Victa's buffet was significantly more powerful than the Cessna's, and was a far more commanding warning to the pilots. The stall developed a little more quickly than the Cessna, and the break/nose sag and any wing sag, came a little faster. However, there were no issues in the exit/recovery. There was a tendency to lose a little more height in exiting/recovering from the stall compared to the Cessna, but only a hundred feet or so. The stall developed more quickly in the Victa, when stalling in a turn, particularly when climbing, but recovery was very similar to the Cessna when in level flight. Stalling in a descending turn was more alarming in the Victa as the rates of roll and, more particularly, the descent, was higher so the airspeed rose even more quickly thus being more alarming to the student.

The stall exit (or recovery characteristics) was totally adequate in all instances in both aircraft, but the lighter, livelier controls of the Victa taught precision elevator control to unstall quicker than the Cessna, because the startling nose drop resulting from excessive forward stick to exit (when too much forward stick was used) was a better teacher than whacking the student around the ears for doing so. While both aircraft perfectly adequately taught the student the rudiments of the stalling exercises, the Victa had a definite edge and, in my opinion, produce a sharper pilot, with a greater degree of precision in their control inputs.

In the glide, the Cessna certainly had the better range, a further reflection of the different aspect ratio of the wings. However, this is not a characteristic that echoes adverse training results. Neither aircraft made a better glider pilot than the other.

For an approach, the Cessna 150G had 40° of flap extension available, which made steep approaches steep and effective. This was one of the two greatest advantage the Cessna had over the Victa. The designs were different, the Cessna had only the ubiquitous flap design, single slotted fowler flaps on the inboard trailing edge of each wing, whereas the Victa had flaperons which allowed the entire trailing edge to droop as a simple flap when the flaperons were lowered/extended. The Victa also sported a belly flap for added drag, which the Cessna did not. The other Cessna advantage was in landing distances required. Mostly benefits of the slightly lower stall speed allowing a slightly lower minimum approach speed, and the 40 ° of available fowler flap extension, approaches could be made slower than the Victa and the large extended flap area would kill airspeed quickly, minimising float and shortening the resulting ground roll. The Cessna also had larger wheels and tires, which afforded better braking, and the brakes themselves, were differential, compared to the Victa brake handle that worked both brakes simultaneously.

The Victa was fully aerobatic whereas the Cessna 150G could not legally match this. It wasn't until 1970 with the production of the 150K Aerobat that aerobatics became a legal possibility. However, all 150s were approved for spins when operated in their "utility' category.

Neither the Victa nor the Cessna would stabilise in a spin after entry. Neither would spin naturally, both had to have the spin encouraged by application of full nose-up

elevator and full rudder in the direction required for the spin at about 10 to 15 knots prior to the stall break. Both dropped the wing on the side of rudder application and would roll, pitch nose down and begin to autorotate.

The Cessna would remain in a state of autorotation for about a turn and a half before the stalled wing unstalled itself and the aircraft entered a spiral dive with increasing airspeed. I have heard of 150's stabilising in a spin, but these were all being operated outside the utility category and thus had a centre of gravity further aft than the utility category could provide. The Victa, "fell" out of the spin after about only ¾ of a turn, into a similar spiral dive but the rotational rate was faster than the Cessna, and more scary for the inexperienced pilot. Both aircraft could easily exceed their Vne in the resulting dive. Here the Victa's limit load factor of +/- 6G was an advantage over the Cessna's +4.4G.

All-in-all, I believe the Victa did produce a slightly better pilot than its competitor, the Cessna 150G, the variation was neither spectacular nor significantly. Considering that these two competing aircraft were in their heyday in the late 1960s and into the early 70s, many retiring airline pilots in Australian and New Zealand airlines did their first solos and subsequent training to professional levels in these aircraft. For these men and women to have achieved the lofty heights of their professions utilising the skills taught by these two seat trainers is voice enough to indicate their very successes. It's only in the smaller points that advantages can be seen, and then only by experienced instructors and flight examiners who are looking for the more subtle results of what each aeroplane has taught its students. In general, the Victa produced pilots with better feel for the aeroplane being flown. The type better demonstrated what can be gleaned from the feel in the stick of the aeroplane in flight, a product of its light and lively controls. The Cessna taught pilots to maintain a better lookout because the enwrapping high wings so limited lookout in turns that checking for other traffic MUST be done ahead of the turn, visibility is too limited once the bank is applied. Other than those two points, there was little between pilots trained in either.

The author, Rob Knight, with Waitemata Aero Club's Victa 100 ZK-CHF in 1971 at Ardmore, New Zealand

His personal preference:
"I have owned Cessna 150s, including a G model, and, although I have always enjoyed flying them, to me, the Victa remains my training aircraft of choice. I think it is really the light and oh-so lively controls that make the Victa so nice to fly."

From the Archives

Should they be expelled from the Association for this?
(To be fair, they still have VH-RIC... the mailbox was once VH-CAP.)

Puzzle answer (from page 12): The other Pellarini design in July's magazine was the Victa R-2 (or perhaps the PL-10). The prototype is in the Aviation Hall of Fame at Shellharbour... here's the Editor pretending it's his.

The R-2 was Victa's first choice of a production aircraft, but then the Airtourer came along. The R-2 project was shelved. Transavia considered building an improved R-2 as the PL-13.

Read more

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