

AIRTOURER ASSOCIATION

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Newsletter 127



Dedicated to the preservation and continued airworthiness of VICTA and AESL Airtourer Series Aircraft



NEWSLETTER

<http://www.Airtourer.asn.au>

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Editorial

This Newsletter is a milestone in that it is the first for some time I've managed to publish on time. My workload has yet to reduce as the involvement with simulators continues. Many members are pilots and would jump at the opportunity to fly a modern airline flight simulator so I thought I should include an article on what's behind a full flight simulator.

As this Newsletter is close on the heels of the last I intended to keep it short but thanks to Bob Peak and Pat Shiel contributions it's expanded to almost twice the original size.

The membership renewals are almost finalised and the membership list will be included with the next Newsletter.

Our best wishes go to Bill Pennell who's mobility is suffering to the point where he and Lorraine have put XVV on the market.

I hope to see you all at Yarrawonga, until then,

Safe Airtouring,
John O'Halloran

Cover Photo: Stuart Krichauff's very original Airtourer 100 MVI.

Disclaimer

The views expressed are those of the contributors and not necessarily those of the Publishers, the Airtourer Association or the Airtourer Co-Operative Ltd.

“Please Mister, can we have our balloon back?”

Bob Peak

As some of you know, Pat & I are not “morning people.” Our day typically starts at about 8am with breakfast in bed, I take Pat a cup of tea and bowl of muesli. We had just started our muesli when there was a timid knock at our front door. We are 250 metres from the sealed road and we had not heard a vehicle approach. On answering the knock I was confronted by a large gentleman with red hair and a matching full but neat beard.

His opening words were something along the lines, “please mister, can we have our balloon back”. He introduced himself and indicated that he was in the company of 5 or 6 people in 2 vehicles and were in fact the ground support team for a hot air balloon that was currently resting on our grass runway that starts from just behind

the house. Again he politely asked for permission to enter the property and retrieve the balloon. Having recovered my wits by this time I shouted, “no way!”, keep it and the pilot there until I get dressed and can deal with this foul trespass face to face.

Pat and I threw on some clothes and rushed out to jump in the ute to drive the 200m to the balloon. Leaping out of the ute I put on my best Bob Peak act and ranted and raved with suitable arm waving, that the pilot was trespassing/disturbing the peace/invading our privacy etc etc and that he should remove himself and his infernal hot air machine forthwith if not sooner. “Alright”, he said, “I will do just that, but perhaps you might care to come aboard and escort me off your property”. His 2 passengers, having patiently waited during



all this, because they had to stay aboard as ballast to keep the balloon on the ground, elegantly, (they were experienced), disembarked one at a time to allow first Pat then me to clamber gracelessly into the wicker basket. Then it was up, up and away, and there was our property spread out below us much like the Google Earth view that son had shown us recently.

We drifted slowly over our boundary Westwards at just a few knots and 3-500 feet AGL passing our immediate neighbours close enough to call "Good morning!" Wind was of course typical "light and variable" so we drifted an erratic course, managing to pass over several more neighbouring properties.

To our surprise, it was quite noisy whilst the burner was turned on but the heat reflected down on us in the basket was very welcome as we hadn't dressed with thought of aviating.

Choosing a suitable landing spot caused the pilot some concern as the open paddocks we were passing over were all very recently sewn to crop. Altitude was varied continually with bursts of gas to climb over some very tall looking trees, and for several minutes we traveled directly over a power line, stretching in the same direction as our travel.

Finally a suitable open space appeared, and we were able to make a safe landing albeit a little alarming for us, with multiple

touches, scraps and bounces before coming to a stop with the basket on its side.

Pilot had been in contact with his faithful ground crew by CB radio and we were soon surrounded by a dozen or so excited people including the family whose property we had just gate crashed.

Deflating the balloon was fascinating to witness and with many willing hands it was soon reduced from a 24 metre high structure to a 150kg sack!

The police were quickly on the scene, represented by a local officer circling overhead in his Jodel 2 seat homebuilt.

The rest of the day was almost anticlimatic but it was the first day of the Temora Museum's flying weekend, with Air Force Roulettes and Navy helicopters attending as well as the resident 2 Spitfires, Hudson bomber, Canberra bomber, Boomerang, Wirraway, Meteor, Vampire etc etc

Pat and Bob Peak, home at Temora during Queen's Birthday weekend, June 2008.



Full Flight Simulators – The Great Illusion

John O'Halloran

You may have noticed that the Newsletters have been late over the last year or so. In particular the May newsletter which hit the mail boxes late June. Sorry! The short answer as to “why” is work, the long answer is due to the introduction of a new aircraft type, the B777-300ER, and a new flight simulator. Additionally, the old B777-200 flight simulator was upgraded with new computers, software and other parts as well as adding additional software for the B777-300. In all, effectively three “new” simulators and I was extensively involved in all of them. I suspect many members of the Association would be interested to hear about the simulators and so this article is my atonement for the late newsletters.

It might be obvious that a flight simulator is supposed to represent the aircraft and is used for training but the detail goes much deeper. In representing the aircraft it must create the illusion to the crew that they are in the real aircraft. To achieve this, the simulator must provide inputs to various senses, in particular sight, sound, tactile, inner ear and even smell in some cases. The reality of the illusion depends on the ability to trigger these senses with realistic inputs while avoiding unrealistic side effects. The reality of the illusion will also determine what training the authorities will allow to be completed in the simulator rather than the aircraft.

The simulator is used broadly for

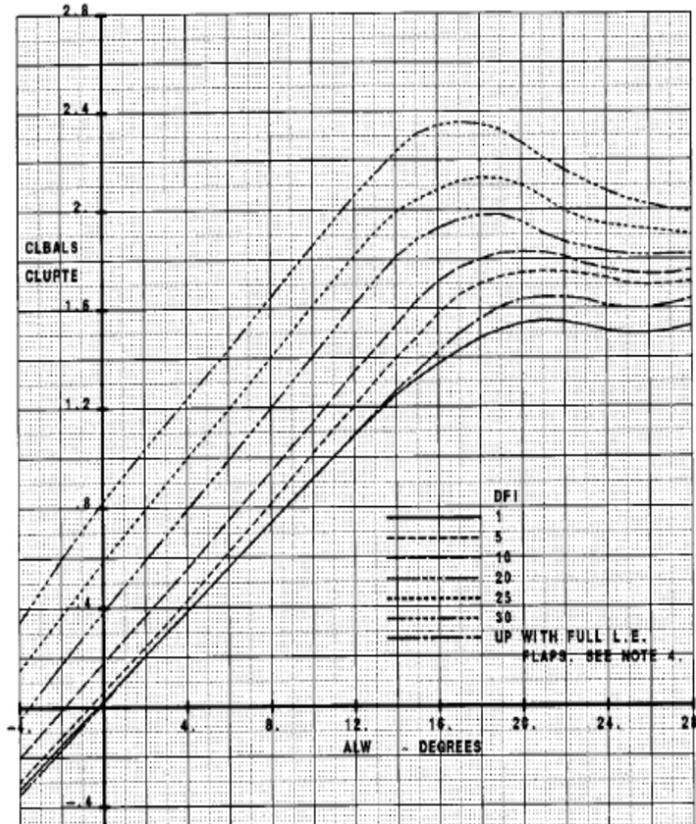
two functions, training and checking. To obtain a type rating on a pilot's licence the authorities require the training to include a number of exercises to be completed in the aircraft. These range from basic takeoff and landings to stalls and emergencies. However, use of a real aircraft is expensive and some of the manoeuvres dangerous, especially as the trainee cannot be expected always to fly them correctly on the first attempt. Even manoeuvres such as stalls are structurally demanding on large airliners. Additionally, a pilot's regular licence checks includes emergencies and tests in weather conditions that are rarely encountered in the real world. The authorities therefore allow some manoeuvres to be conducted in a suitable simulator. But what constitutes



“suitable”?

Similar to other aspects of aviation, the International Civil Aviation Organisation (ICAO) has defined a set of standards for simulators and the types of training that is allowed. Most countries including Australia have implemented the ICAO standards in their own regulations. To ensure these standards are met, a series of tests are required on a regular basis. These are broadly broken up into functional, subjective and objective tests. More on each of these as I progress through the article.

Aircraft manufacturers such as Boeing and Airbus provide a data package to enable the simulator manufacturer to simulate the aircraft. Similar to other intellectual property this data cannot be purchased but rather licenced on a “per simulator” basis. A typical licence fee is in the order of US\$1M. The data will include a detailed description of the aircraft systems such as hydraulics, electrics etc. The equations that describe the aerodynamics as well as the values of various coefficients in those equations take up a major part of the data package. An additional set of data is provided so that the simulator manufacturer can check that they have implemented the aircraft manufacturers data correctly. This compares the Boeing or



An example of simulator data. As pilots we are familiar with the equation for lift and how the coefficient of lift varies with angle of attack. The graph above is an example of the coefficient of lift curve for the B747. The simulator programmers will use data from these curves in the lift equation for the simulator.

Airbus mathematical model to the simulator manufacturers model however, does not necessarily mean that it is like the aircraft. Direct comparison to the aircraft requires another set of data from flight test.

In a sidebar I have gone into the technical detail of the computer hardware and software. Much of the aircraft is simulated in software running on commercial personal computers (PCs). However, there is

the option to use some of the real aircraft electronics boxes in the simulator. This has the advantage that the functioning should be correct and avoids the question as to whether the simulation is correct. Unfortunately aircraft components are designed to start, taxi, takeoff, cruise, land etc. in that order, whereas in a simulator repositions are frequently used for efficient training. A component, designed to interact with an aircraft, rather than an computer pretending to be an aircraft, can become confused. Also we are all aware of the additional cost associated with anything that's certified to go into an aircraft. In many cases it's cheaper in the long run to simulate the aircraft electronics in software rather than use the real thing.

The modern simulator consists of a platform on which a representation of the cockpit is mounted. A screen and projector is fitted in front and the whole thing is mounted on a series of jacks to provide the motion.

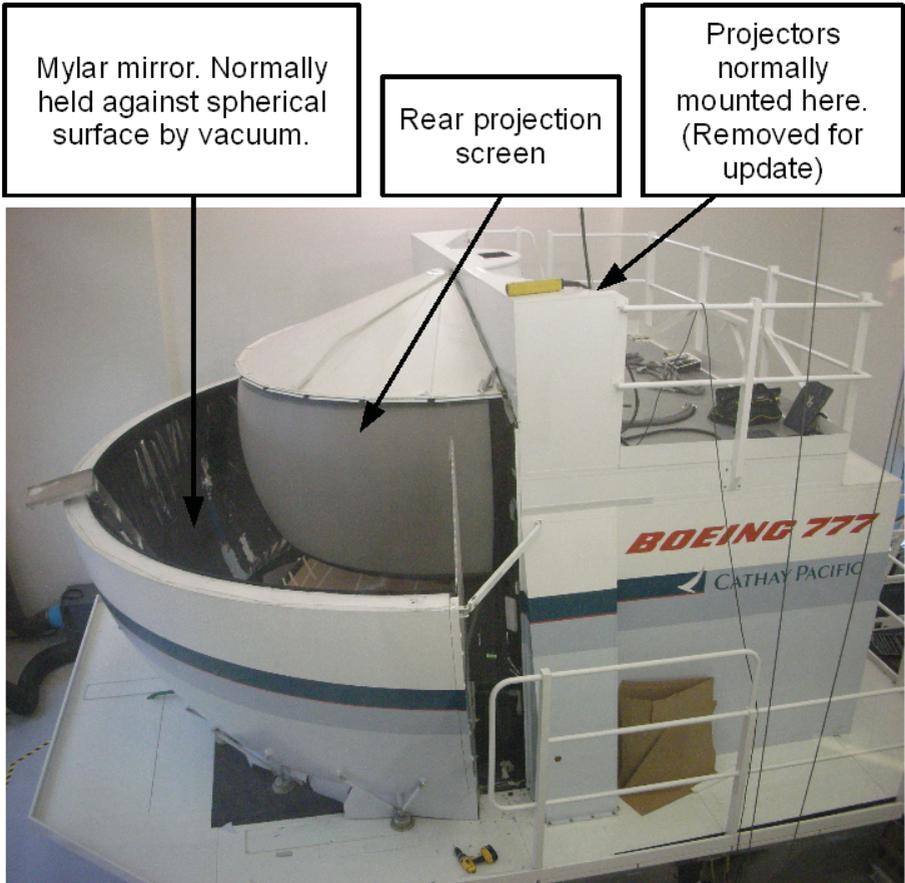
Most motion systems use hydraulic jacks although newer ones use very fast electric screw jacks. Related to the motion system is the control loading. This provides the feel to the controls, throttles, pedals and brakes etc. Replicating the correct feel of the controls is one of the greatest challenges in simulation. By using hydraulic jacks with very fast control valves, or high quality stepper motors in electric systems, the mass, friction, and damping of the controls can be replicated throughout the flight envelope. This task is complicated by the effect of the motion system on the controls. Consider the mass of an airliner control column and then start moving that around on the motion system while still maintaining the relatively small force cues

the pilot feels during normal flying.

The visual system is one of the most important components of the simulation despite much of the training being conducted in poor weather. The eyes are a very powerful stimulus and the reality of the scene during any visual flying, particularly takeoff and landing, can make or break the illusion. The scene is computed in a computer called an image generator. This is the equivalent of the graphics card in a home computer but actually consists of three or more high power PCs. Each one feeds a projector displaying it's image onto a rear projection screen above the pilots' heads. The pilots see this image via a large spherical mirror created by holding a mirrored Mylar film against a spherical surface with a vacuum. This results in an image that 's focused about 10M away. Current visuals have a 40 degree angle of view in the vertical and 200 degrees in the horizontal providing good peripheral cues for landing. The projectors have traditionally been cathode ray tube types similar to the large screen projectors seen in pubs but the latest ones are commercial off the shelf LCD projectors that you can buy for the home.

My work in the past 14 months has been two fold. Primarily I am the customer checking the product the airline has purchased. I also hold approvals from the Civil Aviation Department to evaluate the simulator against the regulations for approval.

Earlier in the article I listed the three areas examined for approval, functional, objective and subjective. The functional checks are relatively straight forward but extensive. Do the aircraft systems operate in the same way they do in the aircraft? This can be a challenge in modern electronic aircraft such as the B777 since even basic

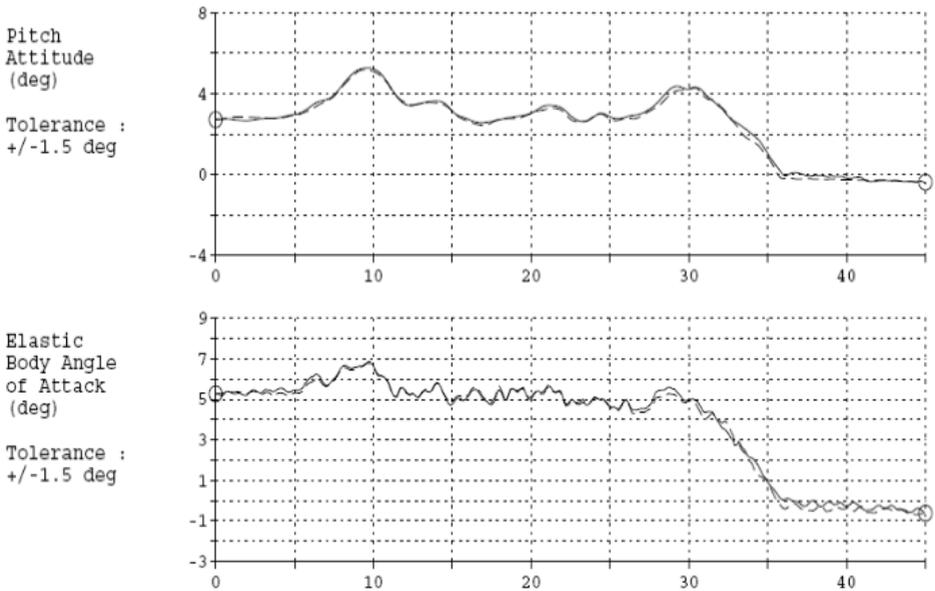


Photograph of simulator undergoing an upgrade of the visual system. With covers removed the rear projection screen and Mylar mirror are visible.

mechanical systems such as hydraulics or air-conditioning are all computer controlled and often have detailed logic not included in the pilots manuals. Typically we will check the functional tests by flying the test procedure used on a new aircraft out of the factory. Our experience on those test flights provide a good basis for checking the simulator.

The objective tests compare the simu-

lator, in a measurable way, to the aircraft. The authorities have defined a number of manoeuvres to be flown in the aircraft and various parameters recorded. The simulator then flies the same manoeuvres and certain parameters must match within a defined tolerance. All these tests results are compiled into a document called the Qualification Test Guide (QTG) which forms part of the certification. All the tests are re-run



on an annual basis for the simulator to maintain it's qualification. The figure above shows an extract from a QTG test of a landing, in this case the aircraft pitch attitude and angle of attack. Each graph consists of a solid line which is the flight test data and a dashed line which is the simulator. You can see that the simulator matches the aircraft quite well in these parameters-. Reviewing the QTG is a specialised skill and can at times require a lot of patience to maintain the necessary attention to details. Where the simulator does not match the flight test data careful examination of the plots is made requiring detailed knowledge of aerodynamics, the aircraft and the test manoeuvre before deciding whether or not the result is acceptable.

The subjective tests are the final part of the evaluation that really determines if the illusion has been achieved. While the handling is the most important, other factors such as sound and motion cues greatly

influence the illusion. The handling, or what it feels like to fly, is assessed during manoeuvres ranging from routine takeoff and landings to non-normal manoeuvres such as engine failures and engine inoperative landing and go-arounds. In this area we are greatly assisted by the handling experience we accumulate during test flights where we check climb performance with engines shut down. How it feels can be subjective but part of the test pilot training includes quantifying the inputs and difficulty of a task in a standardised way. This enables a word picture to be developed for a particular task that can be meaningful to another suitably trained pilot.

One of the most challenging parts of subjective testing is motion tuning. The simulator motion system has a very limited range of movement compared with the motions of the real aircraft. The challenge is to provide a sufficient cue to be consistent with instrument and visual stimuli without

introducing false secondary cues. As an example, lets consider simply applying the brakes during landing. We need to provide a longitudinal force that will cause the pilot to lean forward in the straps. This can be done in two ways, either accelerating the simulator cabin rearwards or tilt it nose down. If we tilt the cab it will take a finite time to achieve the required force and if we tilt it too quickly the inner ear detects the rotation. If the visual scene is not tilting as well the brain gets confused which can induce motion sickness. The tilt must be done slowly but once achieved is good for a sustained cue such as constant braking on landing. The initial brake application then is best achieved by accelerating the car rearwards. Unfortunately this results in a rearward velocity which must be stopped before it reaches the limit of movement of the jacks. If the velocity is washed out too fast it can provide an acceleration cue to the pilot which is the opposite of what they should feel. The ideal is to have the tilt force come in as the velocity is washed out. It is a fine balancing act that is almost impossible to get right for all conditions. Motion tuning is long, tedious, and at times a nauseating process.

Is the simulator exactly like the real aeroplane? No! However, if all the inputs to the senses are good enough and correctly balanced, and the training scenario realistic and demanding enough, then a sufficiently good illusion can be created to enable valuable training.

Simulator Geek Info

Those members with a knowledge of computers may be interested in the technical details behind the simulation. Flight simulation is a demanding computer task and in the past required a specialised commercial computer on which to run. However, personal computer capabilities are advancing rapidly and today we can purchase for less than \$1000 more computing power than a full flight simulator had 15 years ago. Consequently, modern full flight simulators run on one or more 'off the shelf' PCs.

In the case of the B777 simulator one PC runs the simulation of the atmosphere, aerodynamics and aircraft systems such as hydraulics etc. An additional PC runs other systems such as the motion and control loading. The electronics within the aircraft are very complex and it takes a further 13 PC motherboards to replicate those systems.

The PCs run on the LINUX operating system which has a reputation for stability. Some manufacturers are also using the more common Windows operating system.

The simulation software is written in a variety of languages. Many parts of the software, such as the atmosphere, have changed little over time and consequently are written in older languages such as FORTRAN. Other parts use the C or C++ languages.

The internet now allows remote management of the software. In the mid 1990s we installed a collision avoidance system called TCAS into the aircraft and had to retrofit it to the simulators. This was done using an Erasable Programma-

ble Read Only Memory (EPROM) chip in the computer. The EPROM chip could be reprogrammed but needed a special computer to do so. During the evaluation we discovered problems requiring the EPROM to be reprogrammed. The changes were sent via email from HK to the UK where a new chip was programmed and sent airfreight to HK. A minimum turnaround of two but more often three days. Now, if we find a problem during the day in HK, the engineer in Canada can fix it overnight

(during his normal day shift) and load it into the simulator via the internet in time for us the next day. This convenience brings with it a new set of problems, particularly keeping track of changes. With a complex program such as a simulator a 'fix' in one area can generate problems in another. It is this checking of fixes before we can confidently load them into a certified software load used for training that is taking much of my time at present.



EXPRESSIONS OF INTEREST

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MY EXPERIENCE WITH THE VICTA AIRTOURER

Pat Sheil

My experience on this aircraft was gained doing many hours of Pilot Training and I experienced at first hand many of the attributes of which this aircraft was credited with.

In late December 1965 I was appointed CFI of the Cooma Monaro Flying Club. I first gained my Instructor Rating at Tumut in 1961 and until my arrival at Cooma I was only involved in part time instructing, i.e. I was very young and inexperienced. At the time DCA (Russ Evans & Co) were concerned at my appointment and only approved provided I operated under the guidance of Stan Birtus. Stan was a well known veteran in the industry. He was Polish and had wartime experience. When excited he would stutter quite badly in speech.

I had heard a lot about this "Lawnmower Aircraft", but until my arrival in Cooma had not seen one, but there it was, Victa 115 VH-CMF. This was the first time I had seen an aircraft with a central shared control and was quite wary. However I felt quite comfortable and it proved to be the best centre control aircraft I ever flew. I never was one for aerobatics – having on an occasion found myself in a terrifying position hanging upside down out of the cockpit of a Tiger Moth, with my feet and hands off the controls, but I felt confident in VH-CMF and started throwing it about with cheeky reckless abandonment. My antics were noticed by the "Boss". "This will never do." Stan then took me up, put

me through the paces and signed my log book, approved to "Instruct in loop, barrel roll, roll off the top, and stall turns.

The runway at Cooma is almost 2.2 kilometres in length. One incident that occurred whilst training on the Victa happened when I was back tracking runway 36 for take off with a student Pilot. We were almost to the end of the runway when a wheel on the undercarriage locked and we came to a grinding halt. Cooma was an active FSU at the time and we radioed our dilemma to the officer on duty. We were unable to push the aircraft forward, but found it would roll backwards. George Penfound arrived and helped with the long backwards movement to the Club House. The Aircraft was equipped with the "Dunlop Braking System" and it appears a block had dislodged causing the problem. This is a matter I have not pursued, but I have recently been informed that some Victa's still operate with this braking system.

During my 20 months with the Cooma Monaro Flying Club I was made to do an Instructor Check on three occasions with the Department. All checks were conducted with Tom (Pedro) Curlewis. I vividly remember on one of these occasions whilst on final approach to runway 18 commenting how easy I found this aircraft to spot land, i.e. pick a point on the runway and land exactly on that point. Mr. Curlewis replied, "That is because the aircraft has high penetration." I thought to myself, "It would

also mean it would be good in turbulence and high wind.”

My time in Cooma was when the Snowy Mountains development was full on and the Authority had a variety of aircraft based at Polo Flat. These aircraft were used to transport freight, supplies, and Snowy personnel to various locations and used to fly over the Cooma Airport every day. The aircraft consisted of a Grand Commander, 680 Commander, 2 Piaggios, a couple of Beavers, and a 250 Piper Commanche. The Commanche is now owned by Phil Mahlberg LAME here in Moruya. I am a member of HARS and a few weeks ago (circa October 2007) I attended Wollongong with a fellow member and saw one of the Snowy Piaggios airframe awaiting to be restored to flying condition – I have since heard that wings are back on and engines installed.

The SMA carried out its own maintenance at Polo Flat under the surveillance of DCA. They also did the maintenance for Cooma Monaro Flying Club aircraft. The chief LAME was Ken Sage, whom I was to learn was involved in the early development of the Victa aircraft at Milperra. Further I was advised of this woman physiotherapist who used to fly her own Victa aircraft to attend her patients. It was not until 25 years later I met Elaine Sage when I moved to Moruya. Elaine owned Victa VH-DAM and located it in the Aero Club Hangar. Mrs. Sage soon learnt how to use me and would ring on a regular basis with the request, “Would you please get my Dam Victa out of the Hangar for me, I want to fly to Bombala”. Unfortunately she crashed the Dam thing and I don’t have to do it anymore.

The wind at Cooma was a menace. Often blowing at gale force 90° to the run-

way. If we didn’t operate in these conditions we would cease to exist. The Cessna had to be hangared, but the Victa could handle it. It was very trying, but proved to be of immense value to our training skills and confidence.

One day Stan Birtus announced that Henry Millicer was coming to Cooma to fly the Victa. “Oh”, I said, “I will have to check him.” “N-n-na-na-no-no Pt-Pt-Pat-Pat, he often comes and flies the Victa.” “He will still have to be checked”, I said. “B-b-bt-bt-but Pt-Pt-Pat, he built the plane.” I did not know about Mr. Millicer and when he arrived, Stan introduced him to me. He was a very pleasant person and was quite happy to do a flight check with me. Then he took the plane on a long trial flight, came back, alighted from the aircraft and his words were “Hmm, it does need more power”. Shortly after we had a 150HP Victa.

For myself I had very little concern with the power of the 115. This, with the understanding Cooma has an elevation of 3000ft and we had to climb to 6500ft to carry out manoeuvres. Fuel was sufficient only for the flight and we carried no excess baggage. In any event it was valuable training for the student. George Penfound confided in me that he had VH-CMF to 12000ft on two occasions and once was caught in a severe up draught and went to 17000ft.

Mr. Millicer invited me to Milperra to view the aircraft under construction. On the way I picked up my mother at Douglas Park and took her with me to the Factory. Henry selected a partly constructed aircraft that had wings attached to a fuselage and undercarriage, climbed onto the flaperon at the very position where it is placarded “No Step”, took a couple of steps out from the fuselage, staying upright and insisted I

join him on the flaperon. I can assure you I was hesitant, but he persisted. Gingerly I climbed up keeping one hand on the side of the fuselage. Then at his insistence we jumped together, up and down on the flaperon. After we got down, there was no evidence of marking or damage being done to the aircraft.

In 1967 I left Cooma and was not involved with the Victa anymore, until I was appointed CFI of the South Coast Aero Club at (Wollongong), Albion Park Rail. When I arrived the Club had two Victa's, 115 VH-MUO and 100 VH-TWC. Both these aircraft were out of service. VH-MUO came back into service and I did many hours with this aircraft. VH-TWC was purchased by a member of the club and leased back and I operated it on a minor basis.

The seventies were a high wind period and I believed it was much fiercer at Wollongong than either Cooma or Goulburn. The escarpment obviously created a Venturi effect accelerating the wind downhill. In my early years of flying I developed an interest in Meteorology and before I left the Police Force in 1965, I sat and passed Senior Commercial in Meteorology. This was at a time when the examinations had to be handwritten, multi choice came afterwards. In my studies of the weather I was to learn that if I drove an aircraft straight at a cliff face and directly into wind I would safely clear the ridge.

I always considered the Victa 100 to be grossly under powered. It is not as attractive as 115, but it is very sweet and gentle on the controls. So it was on a very windy day at Wollongong in Victa 100 VH-TWC and with its new owner, Trevor Batson, I took off to prove the point about the high wind. We went straight at the escarpment,

a long way below the crest. Trevor was screaming at me to turn around, I kept forward pressure on the control and maintained the airspeed. We easily cleared the ridge and flew at a height over the Village of Robertson.

Another incident with the 100 model occurred here in Moruya with John McGrath in VH-WHO. John was a restricted licence holder and asked me to fly with him to Parkes for the Association gathering. The return flight was into very strong headwinds. I said to John we would have to fly low if we were going to make ground speed and pushed the aircraft down to above the trees. Mr. McGrath would have none of this and pulled back, while I pushed forward. John was a big man and it was hard work. Fortunately I had some success and we made reasonable progress. Unfortunately Mr. McGrath has since passed on.

The final matters of interest with the Victa occurred on the 115 VH-MUO. On one occasion I was training with a student in close proximity to the aerodrome. It was the last flight on a very hectic day. We were about half way through the period when the vacuum pump failed. We lost the FAI, DG & TC. I decided to continue the flight as I considered it would be good experience for the student. About half an hour later we landed, and hangared the aircraft. The next morning I went to check the Victa and discovered there was no indication of oil on the dipstick. Had we continued the flight, there would have been a complete lockup. Brian Nicholson of Goulburn was our LAME. He informed me that the shaft in the pump had sheared and the engine oil pumped out. Apparently, at the time the Lycoming utilised two different vacuum pumps, one wet, and one dry. This is a mat-

ter I have not pursued. Perhaps Alan Wood could advise us on this matter.

Another incident that demonstrated the characteristics of the Victa was when I was at the Aero Club with my wife and another long time member and his wife. Weather conditions were good. The Victa was airborne with an inexperienced student pilot on solo training. The clubs C-172 was parked outside the office building. Suddenly a gale force wind sprang up from the North West. The 172 started to rock alarmingly. We all four rushed desperately to the aircraft. Grabbing hold of the strut I was lifted two feet off the ground and for a moment thought the aircraft would be badly damaged. Fortunately we were able to push the Cessna back up the embankment near the club house, lashing it down securely with extra ropes through the nose wheel attachment. The wind maintained its ferocity and I became deeply concerned for the Victa and the student still out in the training area. Although he was a mature adult involved in the car sales industry he had not experienced such horrific conditions in his flying training. I reasoned that he would not be able to handle it. Finally he returned and lined up on runway 34 on final approach. Everything seemed normal until in the final flare prior to touch down, the wind took control, blew him off the tarmac area and plonked the aircraft down in a heavy landing on the grassed area inside the gables. The student then taxied the aircraft to the club house, parked it in front of the fuel bowser, threw the canopy back, jumped out, got into his car and I never saw him anymore! The Victa weather cocked into the wind. I checked the park brake was set and left it for the rest of the day. It is my view that the Victa saved that man's life.

Should the fuel selector on Victa aircraft be left in the 'on' position? A young enthusiastic chap from the Navy with a Commercial Pilot's Licence arrived at the club with the request that he help out with joy rides and charter on weekends, and holidays. In February 1972 I checked a visiting Pilot from Adelaide on VH-MUO and approved him to hire the aircraft on the same day. I always emphasised that the fuel selector be left in the 'on' position when parking the aeroplane. As it was Sunday, the Navy Pilot arrived to assist in joy rides; I then left in the C-172 with a woman student on a navigation flight to Goulburn-Bankstown-return. On arriving back in the circuit it appeared complete chaos. As I did not witness the scene, I can only tell of the details of the event as related to me. A woman attended the Aero Club wanting to give her young son a joy flight. It was at a time when it was not required to be in charter category to do joy flights. The Navy Pilot put the lad in VH-UMO and back tracked runway 34 for take off into the north. The runway at Wollongong is more than 1.8 kilometres. Witnesses claimed that as the aircraft flew past the Aero Club at the extreme north end of the runway, the motor failed and as they were gliding straight towards Macquarie Rivulet, the Pilot turned the aircraft to the left but was confronted by a line of close grouped trees. He then slammed the aircraft into the ground, in what was described to me as a "Deck Landing"; breaking the undercarriage and fuselage of the Victa. The Pilot and passenger were not injured; they leaped out of the cockpit and ran from the aeroplane.

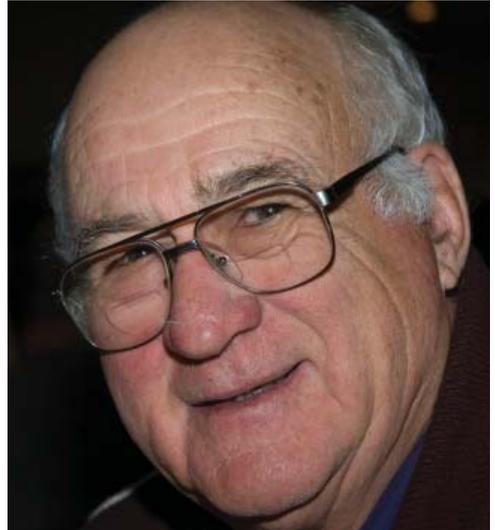
I inspected the Victa and found the cockpit was intact and did not suffer damage. The fuel selector was in the 'off' posi-

tion. DCA attended and test ran the engine at Southbank Aviation Hangar located on the airfield. The motor ran perfectly and no faults were detected. The Navy Pilot failed to attend the club after the event.

For me it was a sad time, I had developed a great affection for the Victa. Although the aircraft had clearly demonstrated its qualities and advantages, it was quite clear its era of operation was coming to an end, at least at the S.C.A.C. We were now in a time when aircraft had to be more diverse, i.e. as well as training qualities, they needed passenger carrying capabilities. The C-172 was tired and needed replacing. Whilst operating in Queensland I had great success with Piper Aircraft. Like the Victa these aircraft are also better in wind. I managed to persuade the committee to have a look at Piper and in May 1972 a 1970 model PA28/140C VH-RRH arrived from South Australia with a total of 900 hours. This then expanded into five Cherokees, three PA28/140, one PA28/180 and one PA28/181. Three of these aircraft were owned by the club and two by members on lease to the club. From there we went on to

fly record hours, out performing Canberra Aero Club and Camden Aero Club. The Royal NSW Aero Club was already in rapid decline. Had Victa proceeded to mass produce the Cruiser model we may have had a totally different situation.

Overall I flew more than 800 hours instructing on Victa type. My experience is from an operational view and not from structural or mechanical knowledge.



Heard at the Hangar Door.

Stu Hilsberg is now in New Guinea working as the Quality Assurance Manager for Air New Guinea.

Cliff Tait is holidaying in Bundaberg with his daughter. The Airtourer he flew around the world ZK-CXU is in the Auckland Museum of Transport.

Sue Davis's Airtourer EQA is getting close to flying again and at last report was almost ready for the paint shop.

John and Doreen Treble are off to Southern Africa on a wildlife safari in Botswana and Zambia. Meanwhile, **Doug Stott and Sue White** are visiting the world's biggest fly-in at Oshkosh.

Errata: In the last Newsletter there was a mistake with Alan Wood's email address, the correct address is graham@aerospaceinnovations.com.au

Committee News.

John Treble has been keeping the Committee busy, particularly the Victorian members. John, Mike and Niels have been meeting to discuss the next convention and will visit Wangaratta later this year.

John Treble has written a general guide for organising fly-ins which is under review by the Committee.

State Representatives. The Committee reviewed the necessity for State Reps and concluded that their role was no longer necessary with the advent of the internet and email. To this end John is working with Doug Stott to make the Association web site the most up to date source of information for members. Both Doug and John are away at present and so a little patience on this matter please.

On the subject of emails I have had enquiries regarding the importance of upper or lower case in email addresses. It does not matter for normal internet email. When the internet was developed, computer memory and bandwidth was limited so it was not feasible to include case sensitivity.

Colleen Murray will be standing down from the Committee and the position of Treasurer at the next AGM. Please consider nominating for this position.

Most of the membership renewals are in with a slow trickle still coming. Congratulations to Phil Morrissey who was the first renewal. Jan says thanks to everyone who didn't staple their cheque to the renewal, staples make her job more difficult.

More Trivia

John Treble passed on the following as an extension of question 7 in the Trivia Quiz from the AGM Dinner.

Alan & Merle came down to participate in the Victorian Dinner night, and stayed with us for a couple of days. During their stay we talked about a lot of things we have all done together in 30 odd years and then took them to see the exact site where Harry Houdini made that Historical first flight at Diggers Rest. This is only about 15 minutes drive from where we live.

On the plaque which Alan & Merle are looking at, is a photo taken of the field directly ahead, on the day where and when the Historic Flight took place over 98 years ago. Amazingly, the view of the field as it is now and the photo taken all those years ago are not much different.



PRESIDENT'S FLY-IN AT YARRAWONGA

19, 20, 21st September, 2008

Accommodation is arranged with the Lakeview Motel and the Belmore Motor Inn.
Both Motels will only hold the Group booking until the 7th September.
Mention Airtourer Association when booking Accommodation.

LAKEVIEW MOTEL

1 Hunt Street, Yarrawonga, Phone: (03) 5744 1555. Double \$95 per Night.

BELMORE MOTOR INN

14 Belmore Street, Yarrawonga, Phone: (03) 5744 3685
Double \$80, Twin \$85, Single \$75 per Night. Includes Continental Breakfast.

For catering and transport purposes have your accommodation confirmed and Registration form (including deposit) with John Treble by 12th September. Make deposit cheque payable to the Airtourer Association then with your Registration form post to

John Treble, P.O. Box 57, Keilor, 3036.

The approximate total cost will be \$80 per person, which includes Transport, Saturday lunch and dinner, Sunday lunch on the "Paradise Queen" cruise boat on beautiful Lake Mulwala, before returning to YWG aerodrome by 2.30pm for the people that are leaving on Sunday.

To receive the correct information required on the registration form, where you see I / We / will / will not /, please place a circle around only what is applicable and what you intend to do.

I / We / will be attending the President's Fly-In at Yarrawonga.

Captain's Name..... VH-.....

Flight Attendant's Name.....

Arrival Day.....Departure Day and ETD.....

Accommodation details.....

I / We / will / will not / be going on the Sunday Lunch Cruise.

A Deposit of \$50 per person required. Number of people.....x \$50 = \$.....

Registration form also available on website

FUEL AVAILABLE WITH A SHELL SWIPE CARD

PROGRAM

FRIDAY 19th Arrivals

6.30pm Dinner at Club Mulwala in the Diggers Function Room.

SATURDAY 20th

11.00am Transport to the Aerodrome to Register and meet New arrivals.

12.30pm Lunch will be a Subway Platter at The Lore of Flight facility.

After lunch there will be an informal forum hosted by Mike Fisher, regarding activities people would like to have included in future Fly-In programs.

For those in attendance there will be a surprise non-transferable door prize after this segment.

A look over the Douglas Aviation paint shop and for those not interested, a short bus tour could be planned.

The rest of the afternoon is free for flying activities.

6.30pm Annual President's Dinner to be held at the Yarrawonga Golf Club.

SUNDAY 21st

10.30am A short walk to the foreshore for our "Paradise Queen" lunch cruise.

2.00pm Transport to the Yarrawonga aerodrome for those departing today.

6.30pm Dinner to be held at the Golden Inn Chinese Restaurant.

MONDAY 22nd

9.00am Departures.

**PLEASE REMEMBER TO BRING THIS PROGRAM WITH YOU
or print a copy off the website.**

Calendar of Events

2008 President's Fly-In

The President's Fly-In to be held at Yarrawonga on the 19, 20, 21st of September. See pages 18 & 19 or the website for Program, Accommodation and Registration form.

Victorian Branch Christmas Fly-Away

This event to be held on Sunday 7th December 2008 for a Barbeque Lunch at the Shepparton Aero Club. Details will be included in the November Newsletter.

Andrew Clement is the organizer and any enquiry should be addressed to him directly. Anyone attending will need to confirm their attendance with Andrew at least one week prior.

Concept is for a fly-in to Shepparton and then a bus ride to the venue for lunch/local tour as part of the transport plan.

2009 Convention and Annual General Meeting

The 31st Convention and Annual General Meeting of the Airtourer Association to be held at Wangaratta on 7th, 8th, and 9th of March 2009.

Good Friday 10th April 2009

Informal gathering of the faithful at the Kyneton Aerodrome to celebrate 50 years to the day since the first flight of prototype FMM.

Victorian Branch 2009 mid-year Dinner Night

Annual mid-year Dinner Night at the Old England Hotel, Heidelberg, on 7-6-2009

Welcome

Matt Henderson from Gisborne in Victoria who has CT4 VH-MCT.