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AIRTOURER ASSOCIATION



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



NEWSLETTER

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

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Articles for inclusion in the Newsletter should be submitted direct to John O'Halloran at the contacts listed above.

The next Newsletter will be published in February 2015. Contributions and or advertisements are to be with JOH by 15 January 2015.

Advertisements are free for current members.

Editorial

The President's Fly-In, being around 20th September, always poses a dilemma for me as it's our wedding anniversary as well as my Mother-in-law's birthday. I'm lucky to have a wife who is willing to spend the wedding anniversary at a fly-in, (as we did the first day of our honeymoon), but this year the Mother-in-law took priority at 90 years of age. It was a pity we did miss the gathering at Echuca as it was, once again, a successful event.

Thanks to Doug Stott, the Historian, and the SAAA for permission to reprint Randy Green's article on "Modern" Test Flying. Although it was presented in 1960 the principles Randy described are still relevant today. As a graduate of the Empire Test Pilots' School (ETPS), I can confirm that the role of a test pilot in observing and communicating remains important. ETPS placed great emphasis on report writing with a layout and structure that was quite rigid to the point where, as students, we thought it was overly pedantic. In particular, the paragraph structure was rigidly enforced. Nevertheless, by the end of the course, the reporting requirements developed a discipline in planning and execution of the tests that made it easier to observe and effectively report what was important. That year (1984) was probably the hardest I've ever worked but it was also the most satisfying work I've done.

Merry Christmas and Happy New Year from Jan and myself,
Safe Airtouring,

John O'Halloran

Cover Photo: BAe Systems CT4B at the President's Fly-in. Flown in by the RAAF from East Sale.

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.

FROM THE PRESIDENT

No. 7

The Presidents Fly-In at ECH was a very good way to start off the good flying weather and, as the article on the event shows, everyone had a good time.

I would like to thank everyone who took the trouble to reply to our recent member's survey, a total of 50 replies were received giving validity to the survey results. One purpose of the survey was to test our assumptions regarding what members wanted from Association events, in some cases this was more an indication of what you do not want.

The other purpose was to help in establishing a viable communications policy for the Association, in other words management of your Association supported by evidence based policy.

So what are the results?

- 23 replies were on paper.
- 27 replies were online.

Regardless of medium, either hard copy or web based, the Newsletter is the single most important means of member communication.

A majority, 61% in fact, are waiting for the posted hard copy.

The indication is that members who look at the website regularly may read the online version of the newsletter first whereas those who do not access the website wait for the postman.



In other respects it would seem that our efforts to communicate with mail out and emails to promote forthcoming events have been singularly unmemorable.

Regardless of that outcome 86% of replies believe event dates are published well in advance.

A very high score was recorded for the desire to have high quality wine and dining, particularly with the online respondents. What you do not want is competitive flying or educational components at events. This message is received and understood.

Most pleasing, numerous replies expressed the desire to meet with their Airtourer friends at events as a reason for attending.

The greatest reason for not attending an event was dates conflicting with other things.

Finally in reply to the question, "Name three locations where you would like to see future events," there were 60 locations nominated which will give the events committee something to think about.

continued on last page...

President's Fly In Echuca, Victoria

20th-21st September 2014

Mike Fisher

It was a glorious sunny Saturday, just the day to go flying to Echuca for the Presidents Fly-In. Spring in Victoria is like this you know!

I am the President.... and I do not know what is going to happen at my fly-in!

The truth is, the real organisers of this event were John Day and David Wearne, so perhaps the working title for this one could be the "Vice-President's Fly-in".

Planning my arrival in time for a BBQ at the Echuca Aero Club (EAC) it looked as if I was almost the last to arrive. This was not a problem as the Aero Club was fantastically supportive and well organised. Lunch was soon served.

They have a full blown Coffee Ma-

chine, like you would expect to see in an Italian restaurant. Fabulous, I was treated to a freshly prepared cappuccino.

It was so nice to hang around the airport and catch up with everyone from our Association. Graham Wood had used his A36 to bring Alan and Merle down from Sydney. Also the RAAF was there in VH registered CT4Bs. With BAe Systems livery instead of RAAF roundels, they appeared quite un-war like. It was also reported that Gerry Pels had swapped his bags for Monique, make of it what you will.

The Sheriff of Lockington was AWOL, a Presidential decree imposes a fine of 10,000 Indonesian Rupiah upon her, all fines to the RFDS please.

The show moved on with Neil



Echuca local, part time barista and fly-in organiser, David Wearne



Mike Fisher inspecting Graham Wood's new avionic fit in the A36.

navigating the bus to the Great Aussie Beer Shed, conveniently located near the airport. The Shed included a display of Australian agricultural machinery and beer memorabilia. Of course you can have a drink, this is why it's called the Beer Shed! I must admit that inspecting over 17,000 empty beer cans is not something that excites me but the show provided by the owner, another Neil, was a highlight. Being cautious I knew not to sit in the front row, but thanks to everyone who did and were so willing to be publicly embarrassed.

Neil has been collecting for 40 years and is a great showman who kept us all entertained with his stories and show & tell session. Andrew Clements demonstrated a capacity to identify ancient and unusual implements that must be feared. They were used to remove animal testicles.

Dinner at the Echuca Workers and Services Club was in our own private dining and bar area. Additions to the usual entertainment were short after dinner speeches. Our RAAF guests were represented by Flt Lt Anreas Jacobs who gave



John Day, Col Taylor, Monique Gillett and Doug Dow at the Echuca Aero Club.

a short talk on the RAAF activities at Sale and David Wearne who spoke of his recent time in the Northern Territory volunteering in a remedial reading scheme for the local communities.

There were prizes too, guess who won the best presented CT4B ?

Sunday was a relaxing day commencing with a cruise on the PS Pevensy.

As always, there is nothing so relaxing as skimming across the water to the steady beat of a steam powered river boat. Experiencing that inside out view, the land world from the river.

As you would expect men were found hanging over the rail looking into the engine room while the steam engineers tended the living beast within. Our little trip possibly consumed a good number of dead trees, so large is the fire box.

Locals advised that there was a lot to see in the Port area including the Port of Echuca Discovery Centre. Since this required getting there early, and no one did, it was on to the bus and off to the airfield.

Lunch was the regular EAC Sunday roast but this Sunday the numbers were swelled by the Airtourer visitors. The club did not let us down as they efficiently served the crowd of aviators. Of course, once again the coffee machine was operating.

The Monday headlines could have read, “Man Smashes Aeroplane”, because later in the day that is just what happened.

Not for anyone’s entertainment, a near new Cessna 182 arrived on the Echuca runway repeatedly alternating between the main gear, the nose gear and it turns out, the prop. A distressing outcome for the owner and his companion out for a pleasant day’s flying. Do not try this at home.

Almost too soon the tie down area was empty and it was time to make the short trip home for work tomorrow. I should have listened to the beer stained voices of temptation, “stay another night, stay another night”.

Thanks to John Day, David Wearne and the Echuca Aero Club for a great weekend.



Echuca Attendees

Name	Reg.
John & Doreen Treble	CRK
Gerry & Denise Pels	DWT
George Penfound Pat Shiel	MWR
Neil & Kath Jensen	CND
Stan & Bonney Tilley	MTL
Jane & Andy Morris	FVV
Mike Fisher	BNV
Jon & Rebecca Day	VRT
Allan & Merle Wood	MGM
Andrew & Sharon Clement	KGR
David Wearne	WAU
Gerry Lawson	MTI
Doug Dow	BQK
Jon & Mon Pels	LVU
Bob & Pat Peak	EQG
Anreas Jacobs	CT4
Colin Taylor	MRL
Ross Laves	CT4
John Morgan	CT4
Dave Penton	CT4
Graham Wood	MGM
Clin & Barbara Ashton-Martin	MTN
Ross McBride	CNO
Fenton Phillips	MRF

Monique and Denise Pels at the Echuca Aero Club



Above; The RAAF visitors being encouraged to return to future fly-ins. Below: L to R, Andy and Jane Morris with John Treble on the P.S. Pevensey.



**Merry Christmas, Happy New Year
and Safe Flying**



President Mike Fisher would like to thank the Committee and other members of the Association for their enthusiastic support during the year and wish them a Merry Christmas and a Happy and Safe 2015.



This is a summary of a talk given to the Liverpool (NSW) Apex Club during March (1960) by Flight-Lieutenant RANDELL GREEN, of the De Havilland Aircraft Pty Ltd., Bankstown. Randy Green is a graduate of the Empire Test Pilot's School, Farnborough, England, and has over 3000 hours test flying to his credit as well as 150 hours of operational flying in Meteors in Korea. He has also flown gliders and is enthusiastic about the sporting appeal of this type of flying.

Modern Test Flying

The usual idea of a test pilot is a fellow about 6ft tall who looks like Errol Flynn and who spends most of his time in vertical dives. I'm only 5ft 7 in tall, don't look like Errol Flynn and very little of my time is spent in vertical dives. Yet, I am a test pilot.

Another misconception is that a test pilot is a super aviator, a daredevil at aerobatics and a man who risks his life nonchalantly in hair-raising adventures.

In fact, however, a test pilot must be a good all-round flier, with a lot of common sense and the ability to be aware of everything that is happening around him during a flight. He must be able to write a comprehensive and accurate report on everything that comes to his attention.

I would say that, for a test pilot the ability to write a proper report is far more important than the ability to fly the pants off an aeroplane.

The designers and engineers who have the task of correcting faults want to know more than just that the aeroplane is not behaving as it should. They want to know exactly what is wrong, under what conditions it is wrong, how and what the pilot thinks should be done about it.

Test flying came into being almost as soon as aeroplanes began flying. After the Wright Brothers had flown, everyone



Randy Green

—Photo by Vienna Studios, Liverpool

got into the act and a lot of people were hurt.

It soon became apparent that some standard was needed to ensure that a new design was safe to operate. Someone had the job of finding out whether it would or not and he was the forerunner of the modern test pilot.

As aeroplanes became more complex, so the test pilot's job became more difficult and the requirements for a good test pilot became higher.

During the Second World War, it was decided to standardise on methods of test flying and the Empire Test Pilots' School was established at Farnborough.

Experienced pilots from all over the empire were selected to undergo a course of training at the school. It was not necessary for a pilot to have previous test flying experience, but he had to have experience in flying a variety of aircraft.

He didn't have to be an exceptionally brilliant pilot, but he had to be the type who could easily adapt himself to all types of flying and to the calm and unbiased appraisal of a new design.

A test pilot's job is to analyse the performance and handling qualities of an aircraft. The designer gives him a summary of what the aircraft should do and his job is to find out if it can be done. In most cases, it is a matter of "suck it and see."

The aim of the course at Farnborough is to teach pilots to gather information and bring it back to the designer.

The first term at the school consists of converting to flying about 16 different types of aircraft, learning to assess the performance and handling of each and write a report on what is found out.

During the second term, the pilot concentrates on learning all about longitudinal stability. In the third term he studies lateral and directional stability.

At the end of the course there are two tests. The first is to do about 10 hours flying in a design which is unfamiliar, then write a full report on it. The second test is to fly and report on the equivalent of an unknown prototype. These aircraft are usually loaned to the school by manufacturers who are working on a new design.

Quite often, the aircraft is one which has had very little testing of any sort, even by the company's test pilots.

After he passes these tests, the pupil can call himself a test pilot.

There are four main types of test flying. Sometimes a pilot has the chance to try all types and sometimes he specialises in one of them.

The first, and probably the most interesting, is the testing of new designs for a manufacturer. This, of course, not only covers new aircraft, but also new components, modifications and equipment.

Then there is production test flying where the pilot takes a production aircraft of proven design and checks to see if it comes up to the specifications. He is not testing the design. He is only testing that particular aircraft.

It is surprising how much difference there can be in the performance and handling of two aircraft of identical design. It is the test pilot's job to report on any features that are not in accordance with what the aircraft should do.

Test flying proven aircraft that have been modified, altered or fitted with new or alternative equipment is another job for the test pilot.

Finally, there are special tests which are often required by the Department of Civil Aviation or the Air Force. For example, the Air Force might be interested in buying a new design and might ask the test pilot to carry out specific manoeuvres under specific loads in specific weather conditions.

There are several ways in which a pilot can make note of his impressions during a test flight. It is impossible, of course to make written notes of any kind. The most common method is for the aircraft to carry a form of tape recorder and for the pilot to describe his actions and thoughts as they occur. Another way is for him to radio the information back to his base, where it is recorded.

I have only had one real prototype to test. This was the Millicer Airtourer, which I flew several years ago. This work added enormously to the respect I have for designers in their ability to predict what their aircraft will do.

Before I began the tests, the designer of the Airtourer, Mr Henry Millicer, described to me how the aircraft would behave under certain circumstances.

At certain speeds and in certain attitudes, he said, this and that would happen. The stall would occur at such and such an airspeed and the aircraft would behave thus and so.

After the test flights I had much pleasure in informing Mr. Millicer that his aircraft had behaved exactly as he had predicted.

I was very impressed by the Airtourer. It is a delightful machine to fly and should prove popular with pilots.

I am often asked to describe my most frightening experience. I think

that fear is nothing more than lack of knowledge of the unknown. Once a thing becomes familiar, it is no longer frightening.

Since a test pilot must be thoroughly familiar with an aircraft before he flies it, there are few things that happen in test flying that are really frightening.

I think my most frightening experience was when I was in Korea and I learned that I had been given the task of leading a squadron of Meteors on an operational attack. My fear was not based on the chances of being shot down or the aircraft failing me in any way. I was only afraid that I was not competent to lead the squadron properly.

Test flying is not all-serious work and it is not nearly as dangerous as is popularly supposed although the insurance companies can't be made to see this.

One of the things I learned while I was in England was that British and French test pilots have a great regard for the inconvenience caused to people on the ground by the supersonic "bangs" of jet aircraft.

For this reason, the British pilots always fly over France to make their "bangs" and the French pilots fly across to England for theirs!

With modern aircraft becoming so enormous, I am sometimes asked how difficult it is to handle a giant bomber or airliner with a wingspread of 150 feet or more. To answer this I always quote the words of a well-known British test pilot who was asked the same question.

He said, "I just fly the cockpit. The rest of the aircraft follows along." That is the whole secret of flying a big aircraft. Just fly the cockpit.

Airtourer History

Randy Green

The previous article is reproduced from the SAAA Airsport magazine dated May 1960 with the approval of the SAAA.



**SPORT AIRCRAFT ASSOCIATION
OF AUSTRALIA**

The Sports Aircraft Association was preceded by the Ultra Light Association of Australia (ULAA), which was formed in 1956 predominately by a group of Government Aircraft Factory (GAF) personnel directly associated with the early design and manufacture of the Millicer Airtourer prototype VH-FMM.

When Randall Green joined No. 1 Flying Training Course in the late 1940s, he probably could not have foreseen that he would end up test flying more than 100 military and civil aircraft, let alone setting up the Singaporean Air Force.

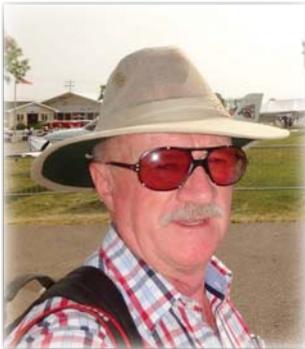
Before that, Randall, who retired with the rank of Squadron Leader, was twice seconded from the Royal Australian Air Force to Hawker de Havilland (HdH) at Fisherman's Bend and became the company's Chief Test Pilot in 1961.

A Request from the Historian

Were you at the Echuca convention in 1984?

At that Convention the after dinner speakers were Henry Millicer and Randy Green. At least one member present went to some trouble to video tape the presentation.

If you have knowledge or even a copy of the video, it would be appreciated if you would contact Association Historian, at email: historian@airtourer.asn.au Anyone with videos of any of our events over the past years is asked to contact the historian with details of what you have. (Please don't send video unless asked).



Doug Stott

Association Historian

Calendar of Events

**Victorian End of Year Gathering
Milawa
6th & 7th December 2014**

All details are on the website. Registration closes 20th November.

**2015 Convention and AGM
20th & 21st March 2015**

Orange / Bathurst area. Watch the website for details.

**Mid Year Lunch 2015
14th June 2015**

The 2015 mid year lunch will be held on the 14th June in the Kyneton area.

**President's Fly-in 2015
18th - 20th September 2015**

The 2015 President's Fly-in will be held over the weekend of 18th - 20th September in the Narromine / Dubbo area.

...continued from page 3.

The first practical outcome of the survey results was the Committee's to endorsement of the following policy at the September meeting:

Communication Policy:

Resolved that the order of communication to members is made via:

- The newsletter,
- The website,
- Email, then
- Mail-out for special occasions or supernumerary events.

We have events coming up in December at Milawa in the North East of Victoria and at Bathurst NSW for next year's AGM.

I look forward to seeing you there.

Mike Fisher