



The newsletter of the Sport Aircraft Association (Auckland Chapter) Inc

Sport Aviator

January 2013



In This Issue:

- The Southgate Spitfire
- The Fight for a Class 2 Medical
- Air France Airbus A330 Crash

www.saaauckland.org.nz

Committee 2012

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Metal Skin	Kevin Paulsen	09 296 5125

FRONT PAGE

The students at the Walsh Memorial Flying School were treated to an unexpected visitor during this year's camp when Mosquito KA114 flew in to Matamata to visit. The students were given full access to the Mosquito.

Contents

- 2 Committee 2012
- 3 President's Report
- 4 From the Editor
- 5 Chapter News
- 10 Last Meeting Summary
- 11 The Southgate Spitfire
- 12 The Fight For A Class 2 Medical
- 13 Air France Airbus A330 Crash
- 14 Mystery Aircraft Quiz
- 15 Hints Tips & Techniques
- 17 In The News & On The Web
- 19 Upcoming Events

Next Meeting

WHEN: Thursday 31st Jan 2013 -7:15pm

WHERE: Auckland Society of Model Engineers Club Rooms
Peterson Road, Panmure Basin
Mt Wellington

SPEAKER: Dave Phillips

Dave will be speaking to us on flying the Mosquito. This should be a very informative and topical report not to be missed.

Other subjects (10 mins max)

1. The trip to Masterton and the Wairarapa Airshow. Talk will be led by Peter Armstrong. Further participants could include Nev Hay, Lloyd Morris and others from the floor.
2. The International Airshow at North Shore led by Alistair Mclachlan and followed by others who attended. Comment on the format. How did it go without War Birds?
3. Discussion on the pending trip to Ashburton, the routes proposed, possible deviation to the Hairy Chest Fly-in OM. Who's going etc. This to be led by Evan Wheeler and Alistair plus others as they come forward.

Of course there will be reports from members who behaved badly over Christmas. Any flying and building progress. This pre-speaker stuff must be brief as Dave Philips will be very interesting.



Hi All

I hope you have all had a great Christmas break and have started this year with new energy and have been getting up flying and if not flying been able to spend time on your projects.

This year is looking to be a good one with the Micro light club [possibly] joining us. I feel this will help the club, bringing in a group of like-minded people.

Well my friends the big news for me at the moment is I am selling the Aircam. YES the Aircam is up for sale.

I have decided to use the 6 PPL exams that I have passed to get my Microlight licence and buy a Drifter (Baby Aircam). The costs of a PPL and the advantages of a PPL don't add up for me. As such there is a finder's fee of \$5,000.00 for the introduction of the person that buys the Aircam

I look forward to seeing you all at the next meeting in January.

Have fun
Cyril



Hi Everyone

Happy New Year everyone. I hope you all managed to get away for a bit of a break over the Christmas/New Year period and perhaps get in some flying or other

aviation experiences.

Delys and I spent Christmas in Wellington with family before we headed over to Blenheim for a mate's 50th (he and I joined the RNZAF together in 1980). We flew over to Blenheim on Sounds Air and I was fortunate enough to be able to sit in the right seat flying across to Blenheim and also when coming back three days later. It was an awesome experience sitting in the front of the Cessna Caravan and listening to the pilot dealing with Wellington, Christchurch and Blenheim. The pilot was flying IFR out of Wellington so I was struggling to keep up with what he was doing but I managed to pick up a bit. Still great to fly front seat and watch the world go by from the cockpit.

While in Blenheim Delys and I also visited the Aviation Heritage Centre at Omaka. This was my first visit to this facility and I have to say I was completely blown away by the displays in the museum. I suspect one would be hard pressed to find anything better elsewhere in the world and it is remarkable that such a facility is readily available for those of us lucky enough to live in the country.

I will be putting together a bit of a photo essay for the next newsletter of our visit. Some interesting news we heard while down in Wellington is that the Heritage Centre has shortlisted three design houses to put together designs for an museum extension for a WWII display.

I believe construction is due to start either late this year or early next and if the standard is anything like the WWI display then it will be a remarkable place to visit in the future.

The mystery aircraft in the last newsletter was not identified. Barry Gillingwater tells me the aircraft is a Savoia-Marchetti SM92. (The Luftwaffe markings were just to confuse people).



The Italians developed the SM92 as a heavy fighter, in a very similar configuration to the Lockheed P38 Lightning (twin-engine and twin-boom fuselage). The prototype flew successfully for nearly 50 hours until it was shot down by one of the Italian Air Force's Fiat fighters, being mistaken for a P38. Duhh!!! (Evidently 'friendly fire' wasn't just the prerogative of the Americans). It never really caught on as an operational fighter and was abandoned when the Italians joined the Allies later in the war. Why this one is painted in Luftwaffe markings is a mystery to me.

A new mystery aircraft is provided for members to identify on page 14.

Amongst the copy I received this month is an interesting article from Warren Sly on his personal experiences in attaining his medical to fly. This is well worth a read if you are struggling to pass your medical.

Lots of other news as well to read. I hope you enjoy the newsletter.

Cheers Gavin

PROJECT NEWS

David Wilkinson's RV8

By David Wilkinson

After the Chapter visit to David's place late last year, David has since received the engine for his RV7 and provided the photo below of the engine fitted to the airframe. Looking very good.



MEMBER NEWS

ZK TOY Out and About

By David Wilkinson



The photo above was taken somewhere between Taumarunui and Taupo in early Jan. I was on holiday in Taupo and needed a fly so Dad flew North Shore to Turangi, I met him there, he took the car and boat back to Taupo while I went via Taumarunui to get some fuel and met him back at Taupo.

Yes there is fuel at Taupo but why not go the long way! Very complicated but it did work.

I have attached another pic at Turangi. The boat in the back ground was built 40 years ago by a young Don, and Dad and I have just completed a rebuild. So a 30 year old Corby and a 40 year old boat both out of the same workshop....



Dave Wilkinson

MEMBER NEWS

Chris Groves

By Chris Groves

Hi Guys

Just to let the members know that my CT scan was clear so no active cancer cells. Was a great present for Xmas. Still very tired but have been assured that it will pass in time. Frustrating waiting. Happy New Year to all. 2013 will be a better year. Cheers Chris Groves

By Don Wilkinson

I was very pleased to meet up with Chris Groves at North Shore last week. Chris looks spectacularly better and reports no residual cancer has been found. He was walking about 4" off the floor. Very pleasing.

MEMBER NEWS

Lucky Senior Aviator

By Nev hay

On Friday 18 Jan Lloyd Morris made contact and asked if I would like to occupy a spare seat in an RV7 and go to the Masterton Airshow. Now is the Pope a Catholic? My care giver was consulted and extracted suitable promises and I was off.

Sat morning dawned clear and calm as I climbed into Carl Morgan's RV7 and we were airborne on Rwy 03 at North Shore as the sun broke the horizon. Yes I've seen plenty of sunrises from bigger cockpits but was pretty impressed with the room in the RV7 and the instrumentation which was installed.



Rangitoto at dawn.

Carl had built his aircraft, ZK-VII, at his parents' home in Cromwell over a period of years during holidays from his job in the UK and has constructed a very impressive aircraft.

With little traffic around a climb to 8000ft in Controlled VFR airspace was readily agreed to.

As well as an impressive instrument kit the engine is controlled by FADEC and it was the first time I had had the opportunity to experience that on a piston engine. I have read a lot of plusses and minuses from operators of FADEC engines but I was favourably impressed with the ease of operation and the range of control it provides. Carl had gone to the US and taken part in the FADEC build in order to understand the system. That has paid off as he knows its operation and capabilities well.

With a 55 knot wind blowing from the SW quarter we had the debate on descending lower to achieve a lower head wind component. In the end we stayed where we were and that was to prove to be the right decision as the wind was still 50kts at 3000ft on descent where we got a short 'pasting' from the mechanical turbulence off the Tararua's.

After 2hrs flight we landed amongst a stream of aircraft converging from all points of the compass. Interestingly the 4 pulse AWIB could not cope with multiple aircraft queries and was 'quietly' confused.

Of course the Mosquito was what drew the crowds this year and we would not be disappointed with the displays by Keith Skilling and Dave Phillips together with the other huge range of types which were expertly presented to the crowd on a fine hot day with light westerly winds showing up in the afternoon.

Sods law tells you the head wind you experienced on the way out will have swung around to pester you on the way home.

Take off after the show was readily achieved and a good indication that the wind had not swung too much was when we again got the attention of moderate turbulence from the Tararuas. This was prolonged a bit as Ohakea control was getting a lot of calls ... *"attention all aircraft out of Masterton, be quiet and standby. We will get to you one at a time"* so we had to turn right to keep out of their airspace. Having finally achieved contact and being cleared to 7000ft the ride home was smooth with the tail wind giving Block to Block of 1hr 45m.

Smoke from the bushfires in Australia was very evident in the lowering sun, and, as we landed at North Shore there was a magnificent coloured sunset to greet us.

My thanks to Carl for a magnificent day and to Lloyd for his kind thought.

VII was accompanied by RV8, SST, with Paul Munro and the 'hirsute' Dave Grove-Hills and Glastar, MPO, with Lloyd Morris and Stu Wards.

[Continues Next Page]

MEMBER NEWS

Lucky Senior Aviator Continued

Come Monday.

One of the privileges of being a Trustee of New Zealand Aeronautical Trust Ltd, is that you get invited to functions to present awards to worthy recipients.

This year's Walsh Memorial Scout Flying School was the 46th, and I have attended a fair number of them in different capacities starting with delivering Victa CRG to the school on 21 Jan'68. My passenger that day was our 3 year old son Mike who was in later years to be an instructor at the Walsh School.

This year 39 of the 41 ab-initio students would achieve their first solo and Monday's Wings award ceremony was even more special with the parade being 'back-dropped' by the Mosquito with Keith Skilling present their wings and making the Keynote speech.



Walsh Memorial Flying School 'Wings Parade'

Jerry Yegan had graciously consented to Keith landing at Matamata for a four hour lay-over enroute Ardmore from Masterton.



Walsh Memorial Flying School Students and Instructors

Every-one was given free access to the magnificent aircraft. What a coup to have it there.

After a spirited flying display Keith left for Ardmore, accompanied by a Strikemaster.

KA114 is now being crated for delivery to America and Gerry. Among others, I too salute the work of Glynn Powell and his team along with the AvSpec's team

In our senior years one hopefully has many special memories and I'm pleased to say that I am still accumulating them. It's been a great week!!



Rangitoto at Dusk.

Nev

CHAPTER NEWS

Buckley Systems Visit Follow Up

By Nev Hay

Late last year Warren organised a visit to Buckley systems which more than impressed those of us who attended.

Those who did not attend but are interested to hear a Bill Buckley interview go to <http://www.radionz.co.nz/national/programmes/ninetonoon/audio/2541892/bill-buckley.aspx> and I guarantee you will it will be 37 minutes well spent.

NZ needs more heroes like this.

Regds
Nev

MEMBER NEWS

Chapter Visit to David Wilkinson's

By Gavin Magill

On Saturday the 15th of December, David Wilkinson hosted a Chapter visit to view progress on his RV8 quick build project.



David talks RV8 to Karl Pudney and Warren Sly.

David and his dad Don made chapter members very welcome with a cup of tea and biscuits and spoke freely about the build progress to date and the few minor issues encountered thus far.

The RV-8 project has been underway now since June 2012 and the progress made has been rapid. David is extremely impressed with the quality of the Vans quick-build kit, likening it to being almost as easy as a Meccano Kit in its simplicity and precision.

David freely admits that if the kit had not come in the quick build format then he probably would not have had the patience to have built a project from a more incomplete kitset.

The current state of the project is that the wings and empennage are complete, the fuselage is on its wheels, with rear turtle deck and forward deck fitted as well as the controls, seat and some wiring fitted. David has the canopy fitted to its frame but this still requires finishing off of the bonding Sikaflex fillet around the edges.

The engine for the RV-8 is an IO-375 with Dual Mags on order from AeroSport Power out of Canada which is due in country in mid December. David has also purchased a exhaust header system out of the US for the engine and had this polished locally to a near mirror finish.



The polished exhaust headers.

Later in the morning members were also treated to a visit by David's other recent addition to his family, namely his recently arrived third child, baby daughter Emma.

Our thanks to David and Don for hosting the visit and also to David's wife for allowing a bunch of aviation geeks to disturb the household routine given the recent arrival of wee Emma.



David's other new recent arrival, baby daughter Emma.

CHAPTER NEWS

Prop Balancer Upgrade

By Gordon Sanders

Late last year I had an email from Mark Burton of Smart Avionics, England, the manufacturers of the Chapter's prop balancer. Mark wanted to confirm a postal address so he could supply updated software, free of charge.

Shortly before Xmas I received a letter containing a smart card, a credit-card sized card with a chip inserted like a number of newer Visa cards etc contain. This chip contained the new program. It was passed to Manfred who reports that the installation was very easy, exactly per the manual. One cannot but be impressed by the after sales service from Smart Avionics. It is over 6 years since we bought the balancer and they provide a free upgrade which is easily installed, showing forethought in the original design to facilitate this.

The new software provides an improved method of calculating the IPS* values and should yield more stable results when other vibrations are present, as they are with prop speed reduction units etc. The new method of determining the IPS value is enabled by default but the old method can be selected if required by setting the system parameter 'Velocity Method' to 'Peak'. A copy of this information is now included with the User Manual.

While the Chapter initially had four people getting up to speed on the use of the balancer it has transpired that Manfred has been the sole operator. He reports that he has had to turn away more people (aircraft) than he has been able to complete a balance for because the basics were not up to scratch.

The four things that must be as perfect as you can get them before even trying dynamic balancing are:

- Blade length, equal within 1mm
- Tracking, equal within 1 mm all along the blade leading edge
- Pitch, preferably within 0.1° (use a laser pointer, not a pitch gauge).
- Static balance. Use a very sensitive horizontal balance jig. The weight of a postage stamp should be enough to cause the blade to tilt.

When measuring tracking and pitch it is essential that the aircraft be prevented from any movement, possibly by jacking it under hard points. It is often the case, as Don Wilkinson proved on his Starlet, that getting the above four points as good as possible can render dynamic balancing unnecessary, particularly for smaller lighter props.

For some good reading on prop balancing, albeit aimed at certified aircraft, read the Aces Systems Guide to Propeller Balancing at:

<http://www.acesystems.com/downloads/manual-gpb/gpb.pdf>

*IPS is Inches Per Second, a commonly used measurement when analysing vibration. Being the product of the amplitude (or displacement) and frequency (revs per second for primary mode signals) of a vibration it is a useful reference for the seriousness of that vibration. It can be seen that at a lower frequency a greater amplitude can be allowed while still achieving the same IPS figure, while if the frequency increases the amplitude must decrease.

LAST MEETING SUMMARY

ARMAC

John Farmer spoke to the Chapter asking if the membership would consider allowing ARMAC members to attend our meetings but still retain their identity as a separate organisation. Jon said the ARMAC club gatherings had declined in recent years and also that the matter had yet to be raised with the ARMAC membership but he wished to raise it with the chapter before raising it with ARMAC. The general consensus was that both ARMAC and SAA had a combined interest in aviation and that it would not be an issue for ARMAC members to attend and the details could be sorted in due course.

Black Sands Summary

Evan Wheeler had heard from Bruce Cooke that some 87 aircraft turned up for Black Sands with 33 participating in the beach landings. Evan said the weekend was without mishap except for an engine problem he had on his aircraft while taking off on the Saturday. This turned out to be due to a build up of carbon in the cylinders which clogged the plugs after the engine backfired during takeoff.

Workshop Visit

Gavin Magill spoke about organizing a chapter visit to **Dave Wilkinsons** workshop to look at progress on his RV8. Dave said he was expecting to receive his engine sometime in early January and would be happy to host a visit. Gavin was to organize the visit with Dave.

PPL/RPL Medicals

Brian Wigley spoke to the chapter about his recent medical where his ECG results indicated a heart anomaly which ended up with Brian having three stents fitted to a clogged artery in his heart. Brian's advice to the chapter was to keep your medical insurance current. Brian is now self-grounded for 6 months. The discussion then turned to the difference between PPL and RPL medicals. Evan Wheeler noted that for members with both PPL and RPL licences, the PPL medical requirements take priority. Fail a PPL medical and you lose your RPL as well. He noted however that the CAA only monitors PPL medicals not LTSA medicals.

WT Airfield Fuel Tank/ MBAC News

Brian Wigley said the fuel tank at Whitianga was re-opening the next day after having been removed by Z-Energy earlier in the year. MBAC had fought hard with Z Energy to get the tank replaced as they had fully intended just removing it. Brian also noted that MBAC have recently renovated the main club hangar to make it fit for hosting catered functions with the bar and catering facilities considerably revamped. He also mentioned the club is organizing for a café/tuck shop to be opened which will be occurring Friday week.

Peter Walton's Titan T51

Warren Sly reported Peter has the engine out of his Titan at the moment following a compression check indicating zero pressure in one cylinder. The cylinder had a burnt valve possibly being caused by running Avgas in the Suzuki engine.

Air Nav Pro Software

Peter Armstrong reported that any members running AirNav Pro software can expect significant increases in licence fee's due to the software not recouping its costs last year. Airways are charging \$20K+ for rights to use the VNCs plus insisting organisations using the charts carry \$2million dollars indemnity insurance.

Popemobile

Gordon Sanders spoke on the current state of the Popemobile. It needs sandblasting and other work and he asked members to consider taking on these tasks. Storage of the vehicle may have been resolved with the Wilkinson family looking likely to build a hangar at Ardmore in the new year and perhaps being able to host the Popemobile in the hangar.

Speakers

There being no further business **Rim Malskaitus** presented an excellent 8 minute video of a flight he took around the Auckland isthmus in his Vans aircraft a few years ago. This was followed by an engaging presentation from **Barry Gillingwater** on the fate of a World War II Mk Vc Presentation Spitfire Serial No AA963, 'Borough of Southgate'.

11 The Southgate Spitfire

PRESENTATION SUMMARY

The Southgate Spitfire

By Barry Gillingwater

Following his presentation at the last meeting I asked Barry Gillingwater to put together a summary of his presentation to include in the newsletter. Barry sent me the following. Ed

In August 1940 at the height of the Battle of Britain, the Minister for Aircraft Production, Lord Beaverbrook adopted a scheme whereby individuals, groups or organisations could sponsor an RAF aircraft (the most popular being the Spitfire) and have naming rights to the aircraft. These were known as 'Presentation Spitfires' and approximately 1500 of these were purchased by the donation of 5,000 pounds each in the period from late 1940 to early 1942. The citizens of the London borough of Southgate managed to raise the required sum in 'record time', no doubt as a way of retaliating against Goering's Luftwaffe which had caused significant damage to this area of North-East London in the winter Blitz of 1940/41.



'Borough of Southgate' on the day of her first flight.

Spitfire mark Vc serial number AA963 was produced and test flown in November 1941. Christened the 'Borough of Southgate' it was delivered to an RAF maintenance unit and fitted with armament, radios and other equipment to bring it to an operational standard, awaiting its allocation to a squadron for service. AA963 was part of the first batch of twenty Spitfire Vc's to be fitted with the armament option of 4 x 20mm Hispano cannon. Due to teething troubles with the cannon mechanism freezing and jamming at altitude the RAF decided not to proceed with a four-cannon armed Spitfire at that time so this batch and all subsequent Vc's were converted back to the Vb armament configuration, which utilised 2 Hispano cannon and 4 x .303 Browning machine guns.

The balance of 19 Spitfires in this batch were reverted to 'B' wing armament, but it was too late for AA963, which was destined for duty in the United States.

Shortly after the Japanese attack on Pearl Harbour in December 1941, President Roosevelt requested that Winston Churchill send him an example of 'his latest Spitfire' for fund raising at displays in the USA. AA963 duly arrived at Wright Field in April 1942, where foreign aircraft were tested and flown for comparison purposes. As the US Army Air Corps already had two other Spitfire V's in the USA involved in testing and evaluation programmes, AA963 joined a War Bond-raising publicity tour called the 'Cavalcade of the Air' which toured the mid-Western states extensively in the period June - October 1942.



AA963 At Chicago Municipal Airport (now O'Hare) May 1942

The Southgate Spitfire accompanied a Bristol Beaufighter, P39 Airacobra, P40 Kittyhawk, a captured Messerschmitt 109e and together with an army glider and towplane proceeded to travel around and raise funds for the allied war effort.



AA963 being refuelled at Wright Field mid-1942.

Not much is known about AA963's exact itinerary but it has been ascertained that it was transferred to Lincoln Field, Nebraska as a training airframe in 1943 after it was re-graded as 'Category 26' and non-airworthy. AA963's final fate is still not certain.

This is a fascinating story with a certain irony in the story of a wartime aircraft that was paid for by public donation (5,000 pounds) being directly responsible for helping to raise a further ten-plus million dollars!

MEMBER NEWS

The Fight For A Class 2 Medical

By Warren Sly

I have had to visit the heart specialist for my last 5 medicals. Stress test and ultra sound examination. Oh and \$800.00.

Having spent 6 years building my baby, I wasn't prepared to have a doctor tell me I can't fly it. So, what are my options?

Medication.

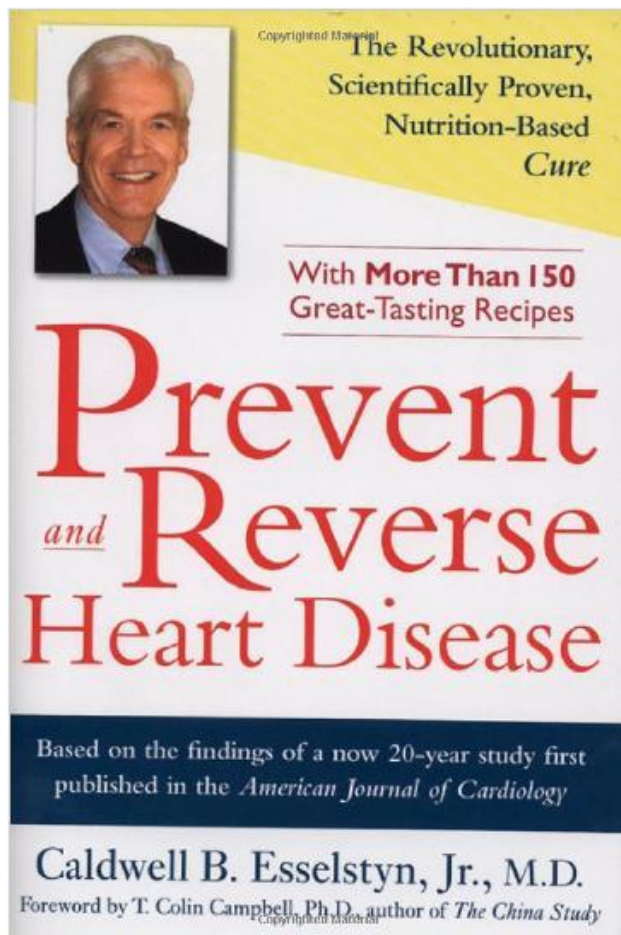
When you are taking all the usual stuff: Aspirin, Cholesterol pills, Blood pressure meds, good diet and exercise, there's not a lot a wriggle room.

Depression

Yes it's very depressing to have to put up with all the side effects of these meds and still be sliding toward loss of a medical.

Diet

I was working on the plane listening to Kim Hill interview Caldwell B Esselstyn, a heart surgeon who claimed he could reverse heart disease in 3 years by following his eating plan. He said he had cured 80,000 people over 20 years.



The book

Yes I jumped on Amazon and bought his book, "Prevent and Reverse Heart Disease" second hand for \$7 plus freight. (That alone lowered my blood pressure). It arrived in 3 days and my wife and I read it and she agreed to follow his plan with me.

The recipes

Shock horror. The first recipe we read was almost indecipherable. We didn't know what half the ingredients were, let alone have them. Google sorted that then it was off to the super market and food stores. To be fair it took over a month to change out the pantry so we had the right stuff at hand.

Cooking

This is a whole new ball game as well. NO OIL. Learned how to stir fry with water. It's amazing. Having got the hang of it now, my new method is cooking by handfuls. Using a lot of Onions, Garlic, Peppers, Chillies and spices. Left over's get more flavoursome by the day.

The Results

After 3 months solidly on the program (3 month transition) my Cholesterol is normal without medication and improving.

I have halved my blood pressure meds and my BP is now 120 over 80 for the first time for years. I have also lost 16 Kg.

My last stress test in December I passed with flying colours and I got my medical.

The change is profound. I am sticking to this program and hope to be medication free in 2 years.

Still miss a good steak!!!

13 Air France Airbus A330 Crash

AVIATION NEWS

Air France Airbus A330 Crash

By Jon Farmer

Abridged transcript of conversations from the cockpit voice recorder of Air France 447.

A friend has emailed me 7 pages of transcript, translation and commentary which give a riveting insight into the last 20 minutes of AF 447, an Airbus 330, that crashed into mid Atlantic some 1hr36mins after leaving South America on 1st June, 2009. Our revered newsletter editor is a bit doubtful about fitting all 7 pages into the next edition and so I have undertaken to try and get it on to less than 1 page.

It is a miracle of modern technology that we have the cockpit voice recorder at all. Just think about it – a little black box tangled up in some wreckage and sitting two miles down under the open waters of the Atlantic Ocean. Little wonder it took two years to find and recover it.

At 2am local time in the cockpit of flight AF447 the senior of two First Officers (SFO) has just returned from a rest break. The Captain gives him the left seat but tells the junior First Officer (JFO) to take control while he, the Captain, takes a break.

The aircraft is entering cloud with some turbulence but nothing is showing on the weather radar. The SFO discovers that the weather radar is not correctly set up and adjusts it. Now the radar shows that the aircraft is heading directly into a massive tropical storm. At 02.08 an attempt is made to alter course by JFO but the pitots and airframe are starting to ice up. At 02.10 the computer no longer has airspeed input and so disconnects the auto pilot. The JFO now has manual control and pulls back on his side stick whereupon the computer warns that the aircraft is leaving it's programmed altitude. SFO turns on de-ice equipment and notes a/c climbing at 7,000 ft/min. At 02.11 the stall warning sounds the first of 75 verbal and 'cricket' calls. The pitots begin to de-ice and SFO notes an airspeed reading of 93kts whereupon he pushes forward on his stick not knowing that the JFO has his stick hard back. Because the two sticks are not mechanically

connected, the computer takes the average and the aircraft now has an 18 degree nose up attitude, an airspeed of 100kts but is descending at an angle of 40 degrees at a rate of 10,000 ft/min. Neither FO can understand what is happening and call the Captain.

At 02.11.45 the Captain arrives and takes the jump seat but is unable to see all the instruments. At this time the airspeed is 60kts and the computer thinks this is a false reading and turns the stall warning off. As the aircraft descends through 10,000 ft the engines and controls are all working perfectly. The Captain orders the JFO to climb but the JFO replies that "**I have had my stick hard back the whole time**" At 02.13.43 the SFO pushes his stick forward in an attempt to gain speed but the JFO **IS STILL HOLDING HIS STICK HARD BACK.** The ground proximity sensor sounds a warning at 2,000 ft. The SFO exclaims "Damn it, we are going to crash – this can't be happening".

At 02.14.28 the voice recorder stops.

14 Mystery Aircraft Quiz by Barry Gillingwater

A test for all those plane spotters out there.

Identify the mystery aircraft in the picture below and email your answer to the editor at gavin.magill@gmail.com before the next Chapter meeting and the first person to correctly identify the aircraft will earn themselves a chocolate fish prize.

Note you will need to turn up to the meeting to collect your prize. ☺



TIPS

A Novel Way to Bend a Leading Edge

By Paul Blackmore

One of the challenges of homebuilding is in finding creative ways to complete operations in a home workshop that would normally be done using expensive specialised equipment, often costing tens of thousands of dollars. One such challenge is bending the leading edge radius of aluminium skins in an all metal aircraft. Such an operation in a factory would normally be completed with a specialised press brake but in the home workshop we must find alternatives. My understanding is that the typical method is to fold the leading edge and press down with a length of timber until the desired shape is achieved. While this no doubt works I expect that getting the correct radius at the leading edge can be difficult, with any difference changing the airfoil and flight characteristics.

The Sonex community has been using an alternative method that uses a piece of pipe, plastic sheeting and a vacuum cleaner to achieve the desired result. The leading edge sheet is placed under a piece of pipe (1.5 inches in the case of the Sonex) which is on top of a sheet of plastic. The sheet is bent up by hand and taped on the trailing edge and then wrapped in plastic and sealed. A vacuum cleaner then allows atmospheric pressure to evenly press and form the skin. I have found that the process works perfectly - Photographs are shown below.



TIPS

UL Engines

By Bob Keith

Gavin, I was trolling the net looking for info on AeroVee engines for Chris Wade when I came across this alternative engine. Might be of interest to one or two members. I had not heard of them but I note they had a stand at Sun and Fun and also at some airshow in Germany. Manfred will know about them for sure.

Rob Keith

ULPower contact

What started off as a joint venture between several private individuals and their companies to develop a new modern technology, light weight engine, was merged into ULPower Aero Engines nv (formed in March 2006) to concentrate on the design and manufacture of engines where light weight, power and reliability are important to the client.

16 Hints, Tips & Techniques Cont.

TIPS

UL Engines Continued

ULPower Aero Engines is backed up by experienced technical partner companies.

ULPower Aero Engines

Kasteelstraat 37
B-8980 Geluveld
Belgium

Tel.: +32 57 468 222
Fax: +32 57 468 257

E-mail: info@ulpower.com

Specifications

	Max Power (hp)	Max Torque (Nm)	Mass kg/lb	Fuel	CI	TBO
UL260i	97	207	72.3 159.3	95 Oct 87 Mon	4	1500 hrs 10yrs
UL260iS	107	240	72.3 159.3	98 Oct 89 Mon	4	1500 hrs 10yrs
UL260iF	100	240	72.3 159.3	98 Oct 89 Mon	4	1500 hrs 10yrs
ul260iSA	107	240	74.8 164.9	98 Oct 89 Mon	4	250 hrs
UL350i	118	305	78.4 172.8	95 Oct 87 Mon	4	1500 hrs 10yrs
UL350iS	130	320	78.4 172.8	98 Oct 89 Mon	4	1500 hrs 10yrs

ON THE WEB

Romancing The Wind

From Nev Hay

The guy flying the 3 kites is in his 80s, and he's from Canada. He comes to the Washington State International Kite Festival every year. His skin is like leather as he normally flies with his shirt off. He is deaf, so when he flies we hold our hands up and wave them for applause. He flies 2 with his hands and the 3rd one is attached to his waist. Enjoy!



You must watch to the end to see the amazing landing of that last kite!

http://www.youtube.com/watch_popup?v=nr9KrqN_Ig

ON THE WEB

Toymakers One Man Helicopter

From Gavin Magill

One for the "believe it when I see it" file.

A Japanese company with plenty of experience making small, remote-controlled electric helicopters is building a human-sized version. Hirobo unveiled its single-seat electric helicopter at a technology expo in Japan and hopes to make its first flight for next year.

<http://www.wired.com/autopia/2012/11/hirobo-hx-1/>



ON THE WEB

Airbus A380 Cockpit

From Norm Bartlett

As you move your cursor you can see the whole cockpit from top to bottom. You can zoom on the dash.

Most panoramas are of landscapes. This 360-degree panorama unlike any other. It's a picture of an Airbus A380's cockpit. Be sure to go to full screen.



<http://www.gillesvidal.com/blogpano/cockpit1.htm>

The Airbus A380 is the largest passenger airliner in the world. It can seat more than 850 people depending on seating configuration.

ON THE WEB

Concord Disaster The Untold Story

From John Struthers

December 9, 2012. Last week a French Appeals Court overturned a manslaughter conviction against Continental Airlines for its role in the crash of an Air France Concorde outside Paris twelve years ago.

All along, conventional wisdom, bolstered by lethargic media coverage, has held that the fuel tank fire was the direct cause of the crash. But this isn't so.....



<http://www.askthepilot.com/untold-concorde-story/>

ON THE WEB

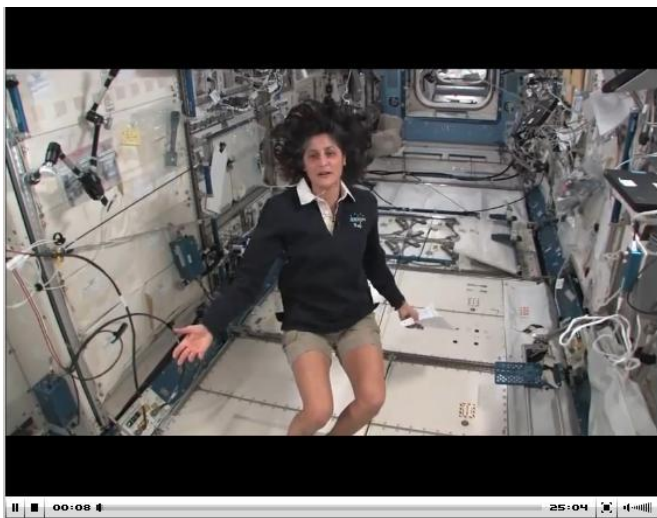
Space Station

From Bob Keith

Space Station video – Fascinating. Sometimes this site is down for some reason. Just try later on.

This is one of the most spectacular videos I have ever seen--a tour of the space station with Sunita Williams of NASA as our tour guide. Lasts 25 minutes, but each second worth it.

<http://www.wimp.com/orbitaltour/>



ON THE WEB

Water Jets

From John King

Is there no end to mankind's search for new, more exciting and odd things to do?

http://www.youtube.com/watch_popup?v=Cd6C1vIyQ3w



ON THE WEB

Weird and Wonderful

From Bob Keith

Gavin I was sent a collection of photos of weird and wonderful vehicles. Mostly cars and motor bikes and amongst them was this one and I wondered if it was for real.

Searching finally on "65% scale flying barrel" I came up with some info. The original was built in the 1930's and a scale replica was built in Australia which is the subject of the link.

<http://www.segair.com/Hangar/Zuccoli/Legends/Legends.html>



ON THE WEB

Aeroscraft Airship

From Bob Keith

Gavin read an interesting article in the Herald on line today about this scale prototype of a new airship design called the Aeroscraft.



<http://www.dailymail.co.uk/sciencetech/article-2257201/The-astonishing-Aeroscraft--new-type-rigid-airship-thats-set-revolutionise-haulage-tourism--warfare.html>

Chapter Events

2013

Jan Chapter Monthly Meeting**31 Speaker:** Dave Phillips**Title:** Flying the Mossie

Aviation Calendar

2013

Every Dargaville Aero Club

Sat The place is buzzing every Sat, wet or fine, windy or calm, and the \$10 lunch at 12.30 is good value. Club is on the web at http://www.flyingnz.co.nz/club_pages/dargaville.html. If going as a group please have the courtesy to ring in advance so the cook expects you. Contact Murray on 027-478 4308 or the club house on 09-439 8024.

3rd Sun Turangi Aero Club Fly-In**Each** All welcome for a BBQ lunch.**Month** Contact Tony on 027-453 3740**Feb Great Plains Fly-in****08-10 Ashburton**

Annual SAANZ national fly-in, AGM and Wings Awards Dinner. More info, registration packs, etc are on the SAANZ website www.saa.org.nz.

Mar Ardmore Showdown 2013**02-03 Ardmore Airfield**

An event for multi-discipline petrol heads with car show, air show, Warbirds, drag racing, drifting, gymkhana, etc More info at www.ardmoreshowdown.co.nz (site still under construction).

Mar Classic Fighters 2013 Omaka Airshow**29-31 Omaka Airfield**

Fri to Sun of Easter Weekend. Heritage aviation on display in an action-packed weekend. Not to be missed if you can get there. More info at www.classicfighters.co.nz.

Apr ANZAC Airshow**27 Hood Aerodrome, Masterton**1200 – 1700. More info at www.wings.org.nz

If members are aware of other events that could be of interest to others please pass the details to Gavin Magill gavin.magill@gmail.com for the Feb issue as Gordon Sanders will be away. But don't rush as you could be the first, and only, person in the queue ☺

Aviation Calendar

2013 Continued