

Gene

From: "Barry Nolan" <tql@inspire.net.nz>
To: "Bill Penman" <billbarb@inspire.net.nz>
Sent: Thursday, 15 October 2009 11:35 a.m.
Subject: Manawatu Microlight Club Newsletter

Manawatu Microlight Club Newsletter for October 2009

www.manawatumicrolightclub.org.nz/

Editor: Barry Nolan Ph: 326 8907 Email: tql@inspire.net.nz

Hi folks,
 It was sad to hear of Alf Crowe's death a few weeks ago. Alf was an Honorary Life member of our club and did much to foster microlighting in this area. He was an energetic, positive, enthusiastic man and took an active part in club affairs for many years. Sadly, due to a difference of opinion between the reigning committee and Alf some years ago, he withdrew from club activities. It's rather sad to think that the opportunity to 'bury the hatchet' has now gone forever! Our sport has lost a champion and many club members have lost a friend! Alf sent me the following article a week before his death so I've published it here as a small, personal tribute to him.

On a lighter note, I'm pleased to be able to admit that I had little to do with producing this month's newsletter. The bulk of the content was supplied by Bill Penman and I didn't alter a single word of his articles. (well maybe one or two!)

Teenager Builds Pedal-Powered Airplane Out of Balsa Wood.

Lots of kids wish they could build an [airplane](#) and fly away, but Dutch teenager Jesse van Kuijk has become one of the rare few to make it happen with his [pedal-powered](#) plane made out of balsa wood, polyurethane, and rip-resistant foil. The most impressive part? Van Kuijk built his plane without ever having flown in one before! The Dutchman's project began in 2006, when van Kuijk started researching pedal-powered planes, including the [Gossamer Condor](#) (the first pedal-powered plane to fly a figure-8) and the [Gossamer Albatross](#) (the first pedal-powered flight over the English channel).

Over the next few years, the inventor gathered materials and eventually built a plane with 85 foot-wide wings and a bicycle chain attached to a propeller for acceleration. Van Kuijk's maiden flight last Sunday didn't go very far-the plane flew 15 feet in the air for a distance of about 45 feet-but eventually he hopes to make an extended journey. That's not out of the realm of possibility, as van Kuijk is only 19 years old and he built his first plane without constructing a model.

As we mentioned previously, Jesse van Kuijk is far from the first aeronautical buff to build a pedal-powered plane. The [Royal Aeronautical Society](#) funds four cash prizes for innovative models, with teams from institutions like Virginia Tech and Pennsylvania State University gunning for first place. But van Kuijk could very well be among the first of an upstart generation of engineers who find new ways to deal with growing aircraft fuel shortages.

Xair forced landing Bill Penman

Mr Murphy is a devious fellow. He seems to know just when to strike and put a spanner in the works. Just when we have decided to shortly put the Xair on the market!
 But not to despair, it could have been worse.

On the only fine day we have had for a while, our intrepid Sonera pilot, Mark Dean, thought it time to get back down to basics and get current in the Xair. On his second circuit and having just commenced downwind, that big surprise that we are all hoping that will not eventuate, but are well trained in the event that it does happen, did happen! The engine stopped! Aviate, navigate, communicate. Down goes the nose, good glide speed, find paddock, pump on, try a quick restart, no, oh damn, have to land. Mark did a great job in putting the Xair down well in one piece only with his adrenalin count running a bit high. He then made a quick call to an aircraft in the circuit that he was down well and safe.

The recovery crew, after lots of head scratching as to why, and how to retrieve the Xair, decided it was getting late so the aircraft was left in the paddock overnight. Next day a number of us, with Ed's flat



deck trailer, which had just off-loaded the new Xair Hanuman, went out to recover the old one. JBR and Phil, our mechanical experts, did a bit of sleuthing and discovered that one of the fuel bowls did not have the required amount of fuel in it. A bit more work and it seems the mechanical fuel pump was not delivering the goods well enough. This most likely caused one of the cylinders to overheat slightly and the result was the engine deciding it was not happy and protested by stopping. With the electric pump running the engine seemed to run within expectations, especially at full power. You may all remember in your training that at full power a

two stroke has a very rich mixture that gives a cooling component. The event was most likely exasperated when the electric pump was turned off after airborne and the power reduced to cruise. The mechanical pump, if faulty, may have not been delivering enough fuel thus creating a lean mixture in one cylinder causing it to nip up momentarily. (that's what we think at the moment)

The Recovery Exercise

Any way, continuing along. It was decided that the easiest way of recovery was to fly it out, but it was not going to happen in the paddock it landed in. This was a real gumboot sucking one and the Xair did not like this makeshift runway. It was decided to put it on the trailer, which was no small effort. Once again Mr Murphy struck. There was no way we were going to get it out onto the main road without cutting down a whole bunch of trees and maybe moving a barn and house or two. We eventually managed to trail blaze across a couple of paddocks and lift the Xair across a fence into a more suitable paddock that looked more like a runway. With Colin having disconnected an electric fence, a few others holding down it down, as it was inconveniently dividing the runway length, JBR eventually took off. As the airfield was only about a mile away he was able to hold his breath long enough until he touched down safely, and just before the lights went out and darkness settled. What a day!

Tis now a few days later and it seems the pump may be OK. The thought now is a possible leak in the rear crank seal letting in air. The engine has been removed and will be sent to Tauranga to fathom out why and to have it repaired. Hopefully it will not be too long before it is back in the air again. A great big thanks to JBR, Phil, Colin, Ed, Peter G, Bill and Bill.

Sky Arrow maintenance Bill Penman

Over the last few weeks JBR and Phil have spent countless hours doing some comprehensive

maintenance to the Sky arrow. A very lengthy process involved all the hinges on the control surfaces being replaced. Please ensure that the hinge pins look as they should when doing a pre-flight. You will now note that there is a lot more tread on the tires as they have been replaced. The disc pads have also been replaced to aid better breaking. The steel support for the brake levers has been upgraded as well. ***It is important that the knurled knob is correctly depressed before an attempt is made to release the brake lock mechanism.*** The aircraft has been test flown and is now fully serviceable.

XAIR Hanuman Bill Penman



The Hanuman is now in the hanger, minus the wings. There will be quite a bit of work involved in getting this into the air. There are engine mount modifications to be done before a 912 can be fitted. There are also cowl modifications to be done along with some instrument fittings. It will most likely take a good couple of months to get it in the air. I know all will be keen to have a good look at it but it would be appreciated that all adhere to a '***look but do not touch***' policy please, to avoid any damage whilst work is being done.

The Hanuman arrives!

Xair Issues

As a consequence of acquiring the Hanuman, the XAIR will shortly become available for sale. The committee is giving club members first option to buy so please express your interest by contacting Ed Evenbly. The details and conditions of sale are to be advised.

Whilst on the subject, the Xair's mechanical problems mean that trainee pilots will be unable to fly for the time being. However, it may be possible for trainees with a few hours flying experience to do 'familiarisation flights' in the Sky Arrow. Please contact an instructor to enquire if you are able to take such a flight.

First, learn to fly!

A photographer saw an opportunity to get a scoop on a story about a bush fire so asked his boss if he could hire an aircraft to take some aerial photos. His request approved, he quickly used a cell phone to call the local airport to charter a flight. He was told a twin engine plane would be waiting for him. Arriving at the airfield, he spotted a plane warming up outside a hangar, jumped in with his bag, slammed the door shut and shouted, 'Let's go.'

The pilot taxied out, swung the plane into the wind and took off. Once in the air, the photographer instructed the pilot, 'Fly over the valley and make low passes so I can take pictures of the fires on the hillsides.'

'Why?' asked the pilot. 'Because I'm a photographer for ABC Cable News,' he responded. 'And I need to get some close up shots.'

The pilot was strangely silent for a moment. Finally he stammered, 'So, what you're telling me is You're NOT my Flight instructor??'

A chap named Henning!

There are many tales about Henning, some true and some maybe stretched a bit. On one of his trips he flew to the Fiji's from Germany via Asia. This Henning could do with the plane's wing tanks or a small ferry tank. After a stay in the islands he wanted to continue back the Germany by crossing the Pacific. He needed larger ferry tanks. He found a round 55 gallon oil drum but it wouldn't fit through the door of the Mooney so he took it somewhere where they had a hydraulic press and partially smashed the oil drum then passed it through the doorway and used it as his ferry fuel.

Another tale describes his trip from Pago Pago to Honolulu when he was directed to a parking place at night. The next day when he returned to the plane he had a note from the FAA (Federal Aviation Agency) to report to their office. When he parked at night he was right under the window of the FAA office. His airplane had United States registration. The officials couldn't believe what they were seeing. He had used a number of square plastic containers like you might buy from the hardware store, grocery store or auto supply store to carry fuel. He would put a plastic hose into one container and run on it until it was dry, then take out the hose and put it into the next jug and so on. The FAA said you can't fly like that. Henning protested that he had just flown $\frac{3}{4}$ of the way around the world like that and had only one long flight ahead, to San Francisco, to complete the journey. The FAA officials were astounded but decided to look the other way and Henning completed the trip using his homemade fuel system.

Be careful up there! More sad tales from the microlight accident file.

Aircraft: TERATORN TIERRA 2,

Injuries: 2 Uninjured.

The experimental aircraft was loaded near maximum gross weight on takeoff from the private sod airstrip. the pilot stated the aircraft performed sluggishly during the climb out from the field. the pilot stated that on the climb out that he was overflying a corn field bordering the strip when the aircraft descended toward the corn despite full power from the engine. the pilot stated he intentionally stalled the aircraft just above the corn and affected the ground beneath the corn where it sustained substantial damage. the pilot stated he felt that the air was less dense as he overflew the corn and this robbed the engine of power and the wings of some lift. the density altitude measurement was slightly above that of

field elevation of 750 feet.

Probable Cause

Planning/decision..Inadequate..Pilot in command
Stall..Intentional..Pilot in command

Aircraft: ROTEC PANTHER II PLUS,
Injuries: 1 Uninjured.

the pilot said that on the first flight of n990re, the vehicle revealed some undesirable flight control characteristics. he said that after landing he installed both doors and then attempted another take off. it was shortly after take off that the pilot lost control of the vehicle and collided with the ground. the vehicle was substantially damaged however, the pilot was uninjured.

Probable Cause

Altitude..Uncontrolled..Pilot in command Contributing Factors

Aircraft: JOE ALMON FALCON XP,
Injuries: 1 Uninjured.

while approaching to land, the registered microlight aircraft encountered a downdraft which exceeded its climb performance. the aircraft was headed toward power lines, so the pilot elected to fly under the lines. as the microlight was crossing under the power lines, one of its vertical fins hit the bottom cable which disabled the aircraft's left rudder control. the aircraft turned to the right toward a hill & would not climb sufficiently to clear over trees. the pilot intentionally allowed the aircraft to mush into the trees while he still had control.

Probable Cause

Clearance..Misjudged..Pilot in command

Mosquito Rebuild Article submitted by Leo Cooney

It is now about 18 years since I started on this project to build (restore) a flying Mosquito. The fuselage of the Mosquito is built in two halves on wooden or concrete moulds. This is the only way you can get the double curvature in the ply. As the moulds had all been scrapped after production ceased in 1950 I was faced with the problem of building them. I was told by people who knew about these things that it was impossible! Well they were nearly right! It certainly was not easy. I had to start from the original lofting data and with the help of Chris McMullen, a top boat builder, I lofted it out and built the moulds.

The mould itself is not too much of a problem it is the positioning, very accurately, of the bulkheads and numerous other members, including the main wing pickup fittings in slots in the mould. I had to position them in space and build the mould around them. Working with a 36 foot long wooden mould with the natural atmospheric conditions made a difference to measurements, depending on which day you measured them. This is why the Canadians first used concrete moulds.

Unlike an all metal aircraft, with wooden construction one is not able to reuse parts of the wooden structure in the restoration. The only option is to build the whole wooden airframe anew. I am adhering

faithfully to the original drawings and specifications. All original materials are used except for the glue. I am using Epoxy which is far superior and makes a beautiful job. As well as being stronger it has excellent waterproofing qualities which overcomes one of the problems the Mosquito gave in service - moisture ingress.

The first fuselage off the moulds has gone to the Mosquito Bomber Group at Windsor, Ontario, who are building a wing for their static Mosquito bomber. We have now built a fuselage, tail plane fin, wing and flaps for Gerald Yagen's Fighter Factory in Virginia USA. That is the entire wooden airframe which is now down at AvSpecs being fitted out.

I have started on my own Mosquito, NZ2308, working on the wing spars and ribs. The jiggging for the wing is an enormous job, the main wing assy. jig took 6 months to make and involved some very accurate engineering, especially with the drill plates for drilling the spars for the engine and undercarriage brackets etc which must be drilled absolutely precisely. It is basically of standard wooden construction but the detail, accuracy and tolerances required are mind boggling. However, as I keep reminding myself, it's all been done before!

When the wooden airframe is finished then comes the assembly of the thousands of metal parts and fittings. You just wouldn't believe how many metal parts there are in an aircraft built "entirely of wood". We have 6 containers full of these metal parts which I have accumulated over the years from around the world. And we still don't have all of them! We are looking for any Mosquito parts. Each one has to be cleaned up, inspected and NDT'd repaired where necessary, the paper work written up and a serviceable tag fitted and the reject rate is high. However almost all of these metal parts will be original and will form a large percentage of the completed aircraft.

We are now in a position to build a Mosquito either airworthy or static. The Mosquito we are restoring is an Australian built dual control T MK43 - the Australian equivalent of the British T MK3. It began life on the Bankstown assembly line as a FB MK40, A52-20, and was converted to T43 status as A52-1054. It was one of four purchased by the RNZAF in June 1947 and flown across the Tasman Sea in 4 hours. Not bad for an aircraft type which first flew in 1940! It's RNZAF number is NZ2308. It was disposed of in 1955 and ended its days on a farm at Riwaka in the north of the South Island, but at least it was saved from the bonfire, the fate of most of the 80 odd other RNZAF Mosquito's. My plan is to fly this Mosquito back across the Tasman to Bankstown where it was born all those years ago.

469 Drury Hills Rd
RD1 Drury, Auckland Ph 09 294 8701

What are they talking about?

- We have received \$12,500.00 from Pub charities to go towards engine on new training aircraft
- RAANZ GM 14.11.09 at Masterton
- SKO still waiting for brake disc to come from USA
- A vote of thanks to JBR & Phil for maintenance work carried out on SKO
- Pilots responsibility to keep aircraft clean especially after grass landings
- Hanger needs more regular cleaning maybe on BBQ day

Events Calendar

