



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

Sport Aviator

October 2013



www.saaauckland.org.nz

Committee 2012

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Composites	Alistair McLachlan	299 2775
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Avionics	Liviu Filimon	268 1199

FRONT PAGE

Dave Wilkinson's RV8 is now sporting its new paint scheme and with wings and empennage attached is now rapidly approaching completion.

Contents

- 2 Committee 2012
- 3 President's Report
- 4 From the Editor
- 5 Chapter News
- 11 Hints, Tips 7 Techniques
- 12 Article – The Douglas DC-3
- 15 Article – Tiger Moth Spring Fly-In
- 17 Mystery Aircraft Quiz
- 18 In The News & On The Web
- 20 Upcoming Events
- 21 Black Sands Fly-In
- 23 Matamata Fly-In & BBQ

Next Meeting

WHEN: Thursday 31th Oct 2013 -7:15pm

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

SPEAKER: John King
The speaker this month will be John King.
The subject will be on his recent visit to the Zeppelin factory in the South of France.



No report from Evan this month



Hi Everyone

As I write this column it is Labour Day 2013 which means the end of the year is rapidly approaching and the Fly-In season is once again upon us. The weather is

trying hard to behave itself but the strong winds that usually affect New Zealand during spring have been particularly bad this year. Thus far we have only really had one major blow come through the Auckland region but the rest of the country seems to be taking a hammering.

The usual opening shot of the Fly-In season is the Spring Fly-In of the Tiger Moth Club at Taumarunui. Sandy Wilson and I were fortunate enough to get to this Fly-In again this year after having missed out last year. The weather behaved itself and TM turned on a spectacular day for those who were visiting for the day. I have included some photo's captured on the day in the newsletter for you to enjoy.

And speaking of Taumarunui, for those that may not have heard, the Avgas facility at this airfield is no more. Unfortunately a concerted effort by the TM Aero Club and the GAA group to prevent the closure was unsuccessful and Z Energy shut this strategically important facility a few months ago. The Jet A1 tank remains, which the local Ag operators with Cresco's can make use of, but everyone else is now obliged to use the Te Kuiti Mobil Avgas facility. And sadly this is not the only facility which has closed recently. Kaitia Airfield has also lost its Z Energy Avgas tank. This reduction of facilities only looks likely to continue as tanks come due for replacement.

On a happier note the annual Black Sands Fly-In is on again over the weekend of

Saturday 2nd Nov and Sunday 3rd November. For those wishing to attend please contact Bruce Cooke at the Waikato Chapter. I have included the PDF flyers for the event at the end of this newsletter which have Bruce's contact details.

Last month's mystery aircraft was correctly identified once again by Warren Sly. It seems to be pretty difficult for Barry to get one past Warren. The aircraft was the Martin Baker MB-5 which was one of the most excellent designs to emerge from the Second World War but unfortunately fell foul of the Ministry of Aircraft Production's policy of only having three bomber types and two fighter types in production at any one time. This policy plus an untimely crash of one of the prototypes meant this aircraft sadly never saw production and only three were built.



Barry has provided another mystery aircraft for us to identify this month. Unfortunately this will be one of the last that Barry provides as he tells me he and his wife Trish have purchased a property in sunny Tauranga and they intend moving there in the not too distant future. Barry says it will be a tad too far to come for Chapter meetings and he will be tendering his resignation from the Chapter.

Enough of my ramblings. On with the newsletter. Hope to see you all on Thursday.

Cheers Gavin

MEMBER NEWS

Don Wilkinson – Corby ZK-TOY

By Don Wilkinson

On the saga of the TOY's carburettor problems, all is now fixed.

After reconditioning and fitting a new butterfly spindle I had problems with altered manifold vacuum. The engine ran well but I was concerned about the change. After removing the carb several times with no improvement I have to ask, why did the tube to the gauge decide to become detached at the same time just to fool me?

Both TOYS, TOY and TNT ready for Black Sands

On the subject of the original cause it was corrosion within the Carburettor, difficult to spot above the float. This left a quantity of fine residue to block the jet. Acid wash, sonic clean and overhaul by a carburettor specialist has rectified all. Suggestion to others with carburettors say over 10 years old would be to have them reconditioned. I think probably at 5 year intervals would be prudent

Cheers

Don Wilkinson

MEMBER NEWS

Sabre Norm

By Norm Bartlett



I was going to take it for a local but couldn't afford the fuel.

MEMBER NEWS

Aircraft For Sale

By Walter Reinauer

Rand KR2



Microlight Class II, Wood and Fibreglass, Fixed Undercarriage, Flaps, VW 1835cc, Total Time 306 hrs, Recent Engine Overhaul, Dual Ignition (Mags and Electronic), Key Start, Cruise 100 kt, Stall 40 kt, Brent Thompson Propeller, Radio
Price: \$24,000 ono

Contact: Walter Reinauer 09 4788959.

FLY-IN NEWS

Matamata Fly-In

By Gavin Magill

The following invitation was received via Brian Millet from the Matamata Aero Club

The Matamata Aero Club will hold its annual Fly-in and BBQ on Sunday, 10 November 2013 (see PDF flyer at end of newsletter).

I would appreciate it if you could pass this on to interested people in the region.

Please also note that the Club has changed its website to www.mac.org.nz and email address to info@mac.org.nz.

Regards, Rainer Kunnemeyer
Club Captain, Matamata Aero Club

FLY-IN NEWS

Black Sands Fly-In

By Bruce Cooke

The Waikato Thames Valley Chapter is once again hosting the Black Sands Fly In at Raglan over the weekend Nov 1st-3rd. We warmly invite all other aviators to attend.

Please find attached a promotional flyer and information pack to provide some details about what we are offering.

Please note that a Beach flying workshop will be held on Saturday afternoon, conditions permitting.

Regards Bruce Cooke

PROJECT UPDATE

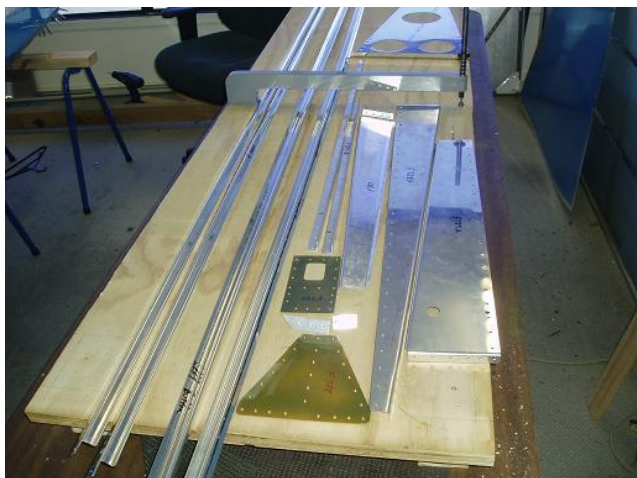
Ken Watters - RV7

By Ken Watters

I have substantially completed the wings apart from fitting ailerons and flaps and parked them out the way for now.



I'm now working on the rear fuselage and have completed fabricating and fitting the longeron stiffeners and drilling everything to size.



Last week I disassembled it all to start deburring and dimpling the 1000 odd holes to prepare for priming and final assembly.



PROJECT UPDATE

Mike Tunncliffe – Projects

By Mike Tunncliffe

Hi, not much progress on the Pietenpol airframe, however the boiler is coming on well. The coils have been welded and pressure tested to 2000 psi, and the main housing is ready to receive the coils after burner trials are completed. See the photo's for the coil stack and boiler housing/engine.



The boiler coils, all 273 feet of them.



The boiler casing of double walled construction, with blower fan on side, atomiser, ignition, and flame out detector on top.

PROJECT UPDATE

Mike Tunnicliffe – Continued

The next set of photos are of rib testing. I was asked about building some ribs for a clipped wing Monocoupe but with a more modern airfoil. The Riblet GA30-613.5 airfoil was chosen as having greater lift, less drag, a softer stall and deeper section allowing a taller spar. On looking at the original rib design I thought there may be some benefit in changing to a truss design for both strength and weight saving.



The original design Monocoupe rib.

I decided the only way to determine the suitability of a new rib design was to test it. Firstly the load the rib would be expected to withstand had to be calculated.

Starting with the gross weight of the aircraft, multiplying that by the load factor of 4.5 "g" then by the safety factor of 1.5, and an allowance for the tail load of x 1.05. This load is then divided by the wing area to give a load per square foot. The wing area apportioned to each rib is determined then an allowance for the span-wise loading of x 1.165 for the inboard 20% of span is applied. This gives the total load the most heavily loaded rib will be subject to.

It is then necessary to determine the chord-wise loading of the rib. I was unable to find a lift chart for the GA 30 airfoil, so a chart for a similar shaped airfoil was used. (The differences between the lift curves will not be significant.)

Having determined the distribution of lift along the rib, allowance needed to be made for the presence of intermediate nose ribs. About half of the lift is forward of the front spar, by sharing this lift between the main ribs and the nose ribs, the structure can be made lighter.

Now we are nearly ready to test the ribs. As we cannot easily apply a graduated load along the rib (and the fact that early tests showed that we could not apply the load part way along the capstrip as it would fail prematurely), the load needs to be fed into the junctions of the cap strips and the intercostals.

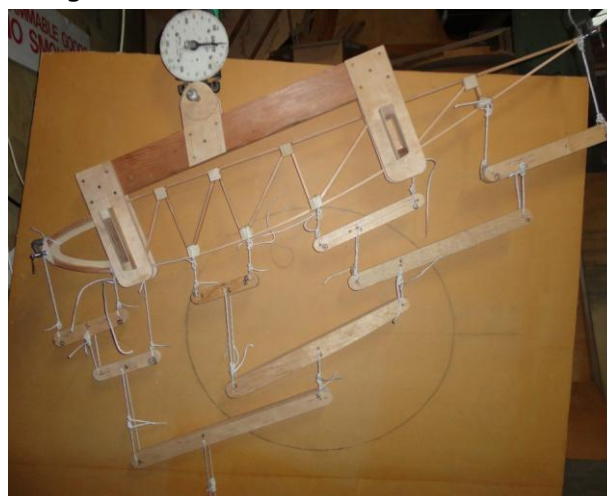
To apportion the load, a series of swingle trees was constructed with uneven arms. The rib was held at the correct angle of attack via stub spars, a spring scale was used to record the load and a chain block used to apply the load. Several test ribs were made,

- An original design rib with 3/16" ply web with lightening holes and routed capstrips.
- A truss rib made from 1/2" x 1/4" Oregon assembled with 2mm ply gussets and a 1/2" ply nose section,
- A similar rib of Spruce,
- A similar rib of Pawlonia,
- And finally a 3/8" x 1/4" Spruce rib with 0.8 mm ply gussets and a nose of 3/8" x 1/2" spruce with a 1/16" ply web.

The ribs were weighed then tested to destruction and the mode of failure noted.

Conclusions:

1. All ribs failed near the front spar. It is therefore very important to have a good glue join between the rib and the front spar.
2. Pawlonia is not suitable for rib construction.
3. The final design rib was half the weight and three times the strength of the original rib design. It took a load of 616 lbs to break it!



The final design truss rib.

The next step is to make a spar section and test it to destruction. The weight savings from the ribs and the substitution of box spars for the original plank spars will see the wing being 28 pounds lighter than the original.

PROJECT UPDATE

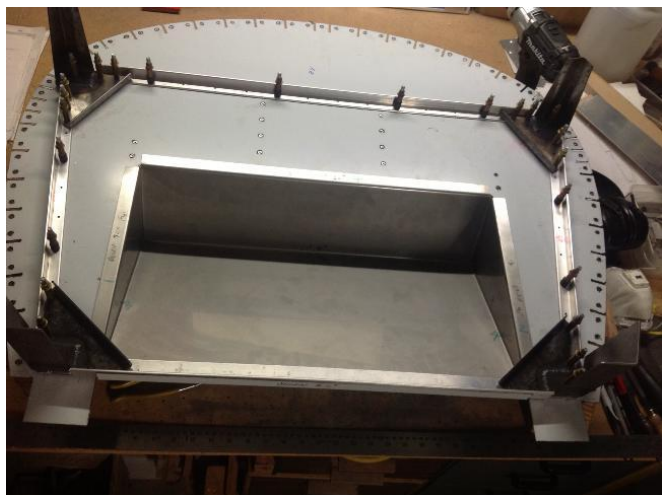
Huib Volker – Harmon F1

By Huib Volker

I've not had time to update the Facebook pages for a while and will be overseas until next Thursday, but this is what I've been up to on my own project over the last few weeks:

As mentioned, my aircraft will be a hand-picked / optimised mix of Van's, Harmon and F-1 Rocket parts - so for me as a first time 'home' builder, there has been some head scratching going on!

The F-1 firewall that I'd previously had laser cut (from an emailed digital file) and box which I had to draw up / laser cut / fold myself, is now assembled.



Because I was getting some other anodising done recently, I also threw in the angles etc. that go on the back of the firewall and parts for my rudder pedals.



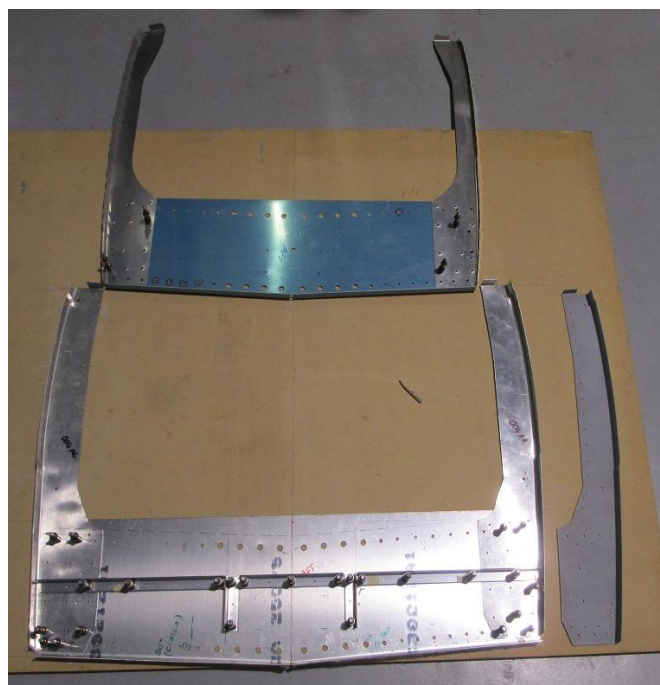
A coat of strontium chromate primer was sprayed on the parts as extra insurance. Having seen many flogged out (holes in) GA aircraft rudder pedals and not being too impressed with Van's design of the pivot points (bolt holes drilled on an angle etc.), I elected to spotface & install Oilite bushes -

a bit of extra work, but hopefully it will pay off in the long run.

Discovered that some of the F1 parts I'd purchased (Frame 4) which were pre-drilled, did not match my (Van's pre-drilled) wing spar, so rather than attempt to make a hodge podge of doublers etc. I opted to manufacture new frames / parts.

Also discovered that for a few items, I'd been supplied with two sets of RH units (not interchangeable)!

One of the photos shows the RV-4 and F-1 frames next to each other to demonstrate the difference in fuselage width in the main spar area.



Some frames had been supplied in 'O' (soft) condition so required heat treating anyway.

I made the tooling, manufactured the five different parts I needed and shipped eight items (+2 for testing) to SAFE Air in Blenheim, thinking that as there were some reasonably critical parts in the batch, I should probably get certification & paperwork with the heat treatment.

After some delays the frames were returned, followed by an invoice so huge that I could have almost purchased an entire Van's empennage kit for similar money!!

Apparently SAFE Air had decided to split the items up into FIVE separate batches, causing huge inefficiencies and labour costs.

PROJECT UPDATE

Huib Volker – Harmon F1 Continued

Needless to say I will probably not use their services again in future!

A chance discussion with an expert in heat treatments in Auckland led me to look into the use of 6013 aluminium, a modern alloy which has superior properties to 2024. I would love to hear from anyone who has experience working with it.

After some thought, I decided to mate my wings together on saw horses and 'fine tune' the appropriate frames to ensure that the belly skins and flaps line up better (apparently a common problem area in RV's). Once I have that sorted I'll be into setting up the fuselage on the jig, which is patiently waiting in the corner! The ends of my main spar webs, left long for jiggging, have now been trimmed flush with the end ribs.



In short it has been a slightly frustrating period with unanticipated extra work / costs, but I'm really looking forward to making some good VP (visual progress) once I get the parts onto the fuselage jig!

Regards

Huib C Volker

PROJECT UPDATE

Dave Wilkinson – RV8

By Dave Wilkinson

ZK-WLK is now at North Shore with wings and tail on. Wiring is being completed.



Alfred Hirzel kindly helped me set the wing incidence and drill the rear spars.



Working steadily on it every day so I can hopefully catch some summer flying
Visitors welcome anytime...

AIRCRAFT NEWS

First Corby Kestrel Flies In Australia

By Don Wilkinson

Don Wilkinson

From our past member, Doug Robson now in Australia. The first Corby Kestrel was, of course built in Dunedin by Gary Montagu. Nice pic for the news and relevant because of Gary who has also built two Starlets
Cheers Don Wilk

From: Doug Robson

Don - thought you might be interested in the first Australian Corby Kestrel fly over here.

Cheers Doug.

From: Peter Leonard

Got this e-mail in today and just had to share it with you all. It is a couple of pictures of the new Corby Kestrel built in partnership by Alan Taylor and Neil Bell. I sure you will agree they are great pictures of the aircraft and it looks fantastic with the Australian flag draped across the tail.

Great to see an all Aussie aircraft making its maiden flight.

Great work fellows. I sure your very proud and so you should be.

Regards

Peter Leonard

SAAA Chapter 15 Secretary

From: Alan Taylor

At long last – there was a little difficulty in getting the “first of type” message across to the CASA registration people, they wanted to call it a modified Starlet.

However John Corby explained it this way.

“While the Kestrel retains many of the successful features of the Starlet, it also includes significant design changes which I believe warrant its classification as a new aircraft type. The Kestrel, besides being of all metal construction, is designed as a fully aerobatic aircraft (6g rather than 4.5g of Starlet) and for more powerful engines now available to amateur builder, sized to accommodate the larger pilots of today.”

Cheers

Alan.



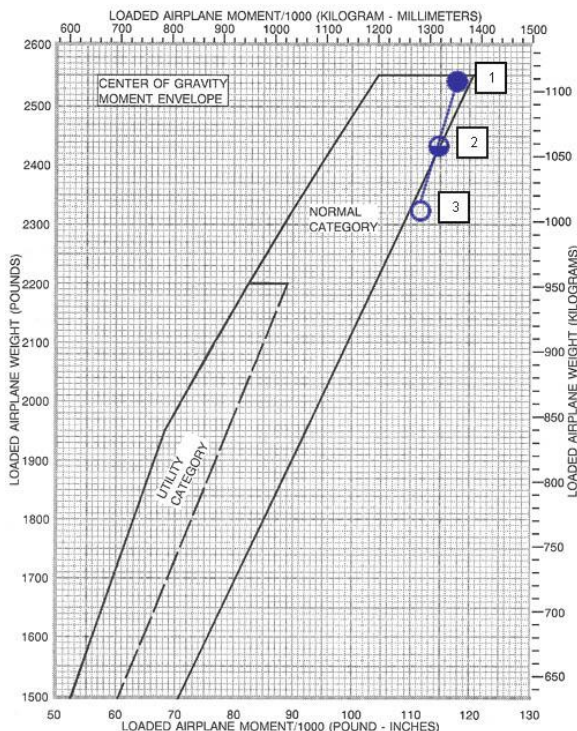
HINTS & TIPS

Calculating C Of G

By Gavin Magill

An article that came to me via KRNet on computing the C of G of your aircraft before flight. Well worth a read.

<http://www.avweb.com/eletter/archives/101/2654-full.html?ET=avweb:e2654:511873a:&st=email#197851>



HINTS & TIPS

Spot Welding Aluminium

By Gavin Magill

Another recent article via KRNet on spot welding Aluminium.

This may or may not be of interest to members but I had not heard or seen this technique before. The video link shows how to spot weld Aluminium.

<http://youtube/gcgC3V3mkcw>



HINTS & TIPS

Scarfig Tools

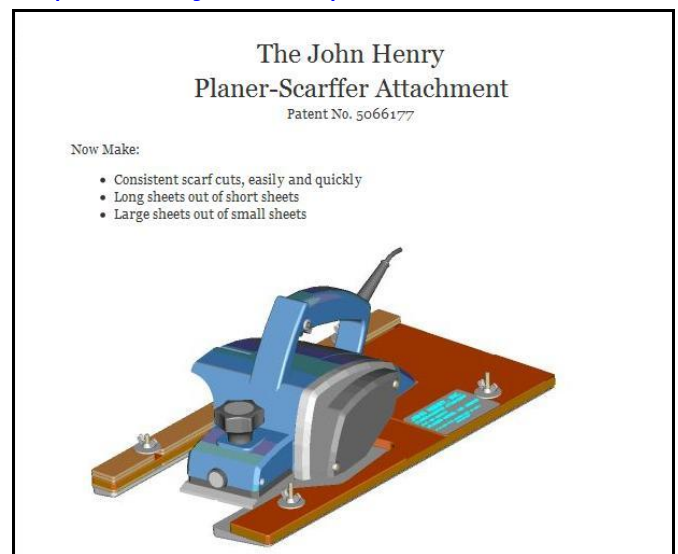
By Gavin Magill

Recently a post came through on the KRNet on tools for cutting scarf joints for ply.

The first tool mentioned was one I had seen previously at Glynn Powell's workshop in Drury and was demonstrated by Mike Tunnicliffe when we visited.

It is called the John Henry Scarffer and fits to most electric planers. See the link at

<http://www.johnhenryinc.com/>



The second tool is called the West System 875 Scarffer and fits electric circular saws. Information on this tool can be found at http://www.jamestowndistributors.com/userportal/show_product.do?pid=4378



ARTICLE

The DC-3

Link Provided By Mike Feeney

The DC-3

'It groaned, it protested, it rattled, it ran hot, it ran cold, it ran rough, it staggered along on hot days and scared you half to death.

'Its wings flexed and twisted in a horrifying manner, it sank back to earth with a great sigh of relief. But it flew and it flew and it flew.'

This is the memorable description by Captain Len Morgan, a former pilot with Braniff Airways, of the unique challenge of flying a Douglas DC-3.

It's carried more passengers than any plane in history, but -

Now the DC-3 has been grounded by EU health and safety rules.



The DC-3 served in World War II, Korea and Vietnam, and was a favourite among pilots!

For more than 70 years, the aircraft known through a variety of nicknames --- the Doug, the Dizzy, Old Methuselah, the Gooney Bird, the Grand Old Lady --- but which to most of us is simply the Dakota --- has been the workhorse of the skies.

With its distinctive nose-up profile when on the ground and extraordinary capabilities in the air, it transformed passenger travel, and served in just about every military conflict from World War II onwards.

Now the Douglas DC-3 --- the most successful plane ever made, which first took to the skies just over 30 years after the Wright Brothers' historic first flight --- is to carry passengers in Britain for the last time.

Romeo Alpha and Papa Yankee, the last two passenger-carrying Dakotas in the UK, are being forced into retirement because of --- yes, you've guessed it --- health & safety rules.

Their owner, Coventry-based Air Atlantique, has reluctantly decided it would be too expensive to fit the required emergency- escape slides and weather-radar systems required by new European rules for their 65-year-old planes, which served with the RAF during the war.

Mike Collett, the company's chairman, says: "We're very saddened."

The end of the passenger-carrying British Dakotas is a sad chapter in the story of the most remarkable aircraft ever built, surpassing all others in length of service, dependability and achievement.

It has been a luxury airliner, transport plane, bomber, fighter and flying hospital, and introduced millions of people to the concept of air travel.

It has flown more miles, broken more records, carried more passengers and cargo, accumulated more flying time and performed more 'impossible' feats than any other plane in history, even in these days of super-jumbos that can circle the world non-stop.

Indeed, at one point, 90 percent of the world's air traffic was operated by DC-3s.

More than 10,500 DC-3s have been built since the prototype was rolled out to astonished onlookers at Douglas's Santa Monica factory in 1935.

With its eagle beak, large square windows and sleek metal fuselage, it was luxurious beyond belief, in contrast to the wood-and-canvas bone shakers of the day, where passengers had to huddle under blankets against the cold.

Even in the 1930s, the early Dakotas had many of the comforts we take for granted today, like on-board loos and a galley that could prepare hot food.

Early menus included wild-rice pancakes with blueberry syrup, served on bone china with silver service.

For the first time, passengers were able to stand- up and walk- around while the plane was airborne.

But the design had one vital feature, ordered by pioneering aviator Charles Lindbergh, who was a director of TWA, which placed the first order for the plane.

The DC-3 should always, Lindbergh directed, be able to fly on one-engine!

Pilots have always loved it, not just because of its rugged reliability but because, with no computers on board, it is the epitome of 'flying by the seat- of- the- pants'.

One aviator memorably described the Dakota as a 'collection of parts flying in loose formation', and most reckon they can land it pretty well on a postage stamp.

Captain Len Morgan says: 'The Dakota could lift virtually any load strapped to its back and carry it anywhere and in any weather safely.'

It is the very human scale of the plane that has so endeared it to successive generations.

With no pressurization in the cabin, it flies low and slow.

And unlike modern jets, it's still possible to see the world go by from the cabin of a Dakota.

(The name, incidentally, is an acronym for Douglas Aircraft Company Transport Aircraft.)

As a former Pan Am stewardess puts it: "From the windows, you seldom look upon a flat, hazy, distant surface to the world.

"Instead, you see the features of the earth --- curves of mountains, colours of lakes, cars moving on roads, ocean waves crashing on shores, and cloud formations as a sea of popcorn and powder puffs.'

But it is for heroic feats in military service that the legendary plane is most distinguished.

It played a major role in the invasion of Sicily, the D-Day landings, the Berlin Airlift, and the Korean & Vietnam wars, performing astonishing feats along the way.

When General Eisenhower was asked what he believed were the foundation stones for America's success in World War II, he named the bulldozer, the jeep, the half-ton truck, and the Dakota.

When the Burma Road was captured by the Japanese, and the only way to send supplies into China was over the mountains at 19,000 ft, the Chinese leader Chiang Kai-shek said: 'Give me 50 DC-3s, and the Japs can have the Burma Road.'

In 1945, a Dakota broke the world record for a flight with an engine out of action, travelling for 1,100 miles from Pearl Harbor to San Diego, with just one-propeller working.

Another in RNZAF service lost a wing after colliding mid-air with a Lockheed bomber. Defying all the rules of aerodynamics, and with only a stub remaining, the plane landed, literally, on a wing and a prayer at Whenuapai Airbase.

Once, a Dakota pilot carrying paratroops across the Channel to France heard an enormous bang.

He went aft to find that half the plane had been blown away, including part of the rudder. With engines still turning, he managed to skim the wave-tops before finally making it to safety.

Another wartime Dakota was rammed by a Japanese fighter that fell to earth, while the American crew returned home in their severely damaged --- but still airborne --- plane, and were given the distinction of 'downing an enemy aircraft'.

Another DC-3 was peppered with 3,000 bullets in the wings and fuselage by Japanese fighters.

It made it back to base, was repaired with canvas patches and glue, and then sent back into the air.

During the evacuation of Saigon in 1975, a Dakota crew managed to cram aboard 98 Vietnamese orphans, although the plane was supposed to carry no more than 30 passengers.

In addition to its rugged military service, it was the DC-3 which transformed commercial - passenger flying in the post-war years. Easily converted to a passenger plane, it introduced the idea of affordable air travel to a world which had previously seen it as exclusively for the rich.

Flights across America could be completed in about 15 hours (with three stops for refuelling), compared with the previous reliance on short hops in commuter aircraft during the day and train- travel overnight.

It made the world a smaller place, gave people the opportunity for the first time to see previously inaccessible destinations, and became a romantic symbol of travel.

The DC-3's record has not always been perfect.

After the war, military-surplus Dakotas were cheap, often poorly maintained, and pushed to the limit by their owners. Accidents were frequent.

One of the most tragic happened in 1962, when Zulu Bravo, a Channel Airways flight from Jersey, slammed into a hillside on the Isle of Wight in thick fog. All three crew and nine of the 14 passengers died, but the accident changed the course of aviation history. The local radar, incredibly, had been switched off because it was a Sunday. The national air safety rules were changed to ensure it never happened again.

'The DC-3 was, and is, unique,' wrote the novelist and aviation writer Ernest Gann, 'since no other flying machine has cruised every sky known to mankind, been so admired, cherished,

glamorized, known the touch of so many pilots and sparked so many tributes..

"It was without question the most successful aircraft ever built, and even in this jet- age, it seems likely that the surviving DC-3s may fly about their business forever."

This may be no exaggeration. Next month, Romeo Alpha and Papa Yankee begin a farewell tour of Britain 's airports before carrying their final passengers at the International Air Tattoo at RAF Fairford on July 16, but after their retirement, there will still be Dakotas flying in the farthest corners of the world, kept going with love, dedication and sheer ingenuity.

Nearly three-quarters of a century after they first entered service, it's still possible to get a Dakota ride somewhere in the world.

I recently took a DC-3 into the heart of the Venezuelan jungle --- to the "Lost World" made famous in the novel by Sir Arthur Conan Doyle. It is one of the most remote regions on the planet --- where the venerable old planes have long been used because they can be manoeuvred like birds in the wild terrain.

It's a scary experience being strapped into a torn canvas chair, raked back at an alarming angle (walking along the aisle of a stationary Dakota is like climbing a steep hill) as you wait for take-off. The engines spew smoke and oil as they shudder into life with what DC-3 fans describe as 'music', but to me sounded like the hammering of a thousand pneumatic - drills.

But soon you are skimming the legendary flat-topped mountains protruding from the jungle below, purring over wild rivers and the Angel Falls , the world's highest rapids. Suddenly the ancient plane drops like a stone to a tiny landing strip just visible in the trees. The pilot dodges bits of dismantled DC-3 engines scattered on the ground and avoids a stray dog as he touches down with scarcely a bump.

How did he do it without air traffic control and the minimum of navigational aids?

"C'est facile --- it's easy," he shrugged.

Today, many DC-3s live-on throughout the world as crop-sprayers, surveillance patrols, air freighters in forgotten African states, and even luxury executive transports. One, owned by a Houston lumber company, had mink-covered door- knobs, while another belonging to a Texas rancher had sofas and reclining chairs upholstered with the skins of unborn calves.

In Jaipur, India, a Dakota is licensed for flying wedding ceremonies.

Even when they have ended their aerial lives, old Dakotas have become mobile homes,

hamburger stands and hen houses. One even serves as a football team changing room.

Clark Gable's private DC-3, which once ferried chums such as John and Bobby Kennedy, Marilyn Monroe, Frank Sinatra and Ronald Reagan, is in a theme park in San Marino. But don't assume it won't run again. Some of the oldest hulks have been put back in the skies.

The ancient piston- engines are replaced by modern turboprops, and many a pilot of a modern jet has been astonished to find a Dakota alongside him on the climb away from the runway.

So what is the enduring secret of the DC-3?

David Egerton, professor of the history of science and technology at Imperial College , London , says we should rid our minds of the idea that the most recent inventions are always the best.

'The very fact that the DC-3 is still around and performing a useful role in the world is a powerful reminder that the latest and most expensive technology is not always the one that changes history,' he says.

It's long been an aviation axiom that 'the only replacement for the DC-3 is another DC-3'. So it's fortunate that at least one seems likely to be around for a very long time to come.

In 1946, a DC-3 on a flight from Vienna to Pisa crashed into the top of the Rosenlauri Glacier in the Swiss Alps. The aircraft was not damaged and all the passengers were rescued, but it quickly began to disappear as a blinding snowstorm raged. Swiss engineers have calculated that it will take 600 years for it to slide- down inside the glacier and emerge at the bottom.

The most asinine ruling ever dreamed up by a nightmare bureaucracy!

I especially appreciate the part requiring "escape slides". When it's resting on its belly, you can step down from the aircraft floor to the ground. And the article left out the tale of the "DC-2-and-a-Half". After being shot-up by Japanese fighters, the damaged wing of a DC-3 was replaced with a smaller one from a DC-2. It was then loaded up with refugees and flown to safety.

15 Tiger Moth Spring Fly-In 2013

By Gavin Magill

The following are some images I took from the Tiger Moth Spring Fly-In at Taumarunui on Saturday 19th October 2013.



Above and below. Looking left along the flight line.



Above and below. Looking right along the flight line.



Taumarunui put on a superb day of weather which brought out nearly a dozen De Havilland bi-planes.



BMY Taxies out taking another passenger.



AUZ looking lovely in the TM sunshine.



Mogas refuelling truck provided by TM Aero Club.



Looking along the flight line to the club rooms.

16 Tiger Moth Spring Fly-In 2013

Below are some of the visiting aircraft in attendance. As always Kevin Vile and the Taumarunui Aero Club team were fantastic hosts and made everyone very welcome.



One of the locals called in to refuel.



A few of the other visiting aircraft.



Sonex JQP and Zenith ZXZ amongst others.



James Land brought his recently acquired Thorp S18.

Ben Meyers Zenith CH601 was of particular interest to yours truly as Ben has recently updated the avionics and the Zenith now sports a Dynon SkyView.



Ben Meyer's Zenith.



The SkyView allows room for a glove box.



The SkyView display is incredibly clear.



One final image of JQP on the way to TM.

17 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. ☺



ON THE WEB

A Challenging Workstation

From Gordon Sanders

OK engineers, how do you reckon you'd get on monitoring all these steam gauges, and not a computer in sight?

This is a 360 panorama of the flight engineers station on a B-36: Six reciprocating R-4360s and four J-47 jets to keep an eye on, plus fuel, pressurization, hydraulics, electrical, and other systems.

<http://www.nmusafvirtualtour.com/media/062/B-36J%20Engineer.html>



ON THE WEB

Hahnweide Old Timers Fly-In

From Nev Hay

Hahnweide Old Timers Fly In and Airshow 06-08 Sep 2013. Great airshow.

<http://forums.airshows.co.uk/viewtopic.php?f=8&t=55583>

Barry Gillingwater notes that it also boasts an amazing choice of some of the finest cuisine available at any airshow worldwide. Another excellent reason to attend.



ON THE WEB

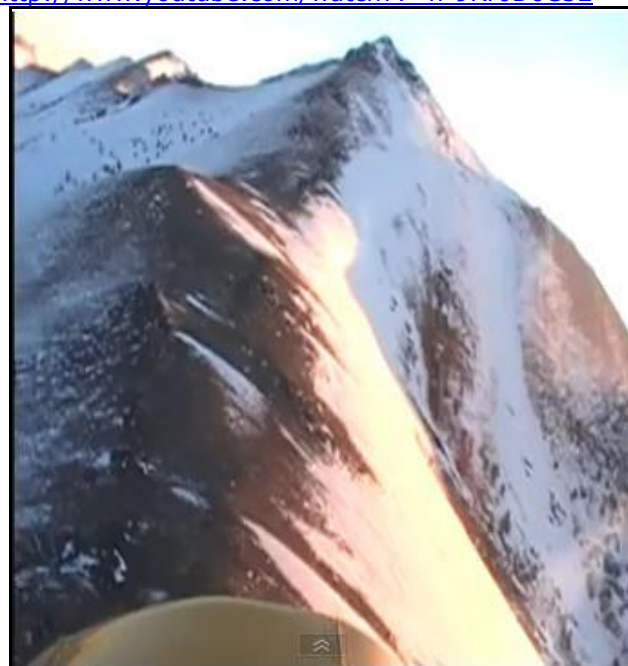
Landing a Cub on A Mountain

From Norm Bartlett

Here's a video that's just too good not to share. An intrepid aviator in his Super Cub lands atop a mountain in central Nevada, the oddly named Bunker Hill, at an altitude of around 11,000 feet. Read more at

<http://www.flyingmag.com/pilots-places/pilots-adventures-more/video-landing-and-takeoff-youve-never-seen#TmT6JHMeJX0qj8dJ.99>

<http://www.youtube.com/watch?v=h-9RPJDoC5E>



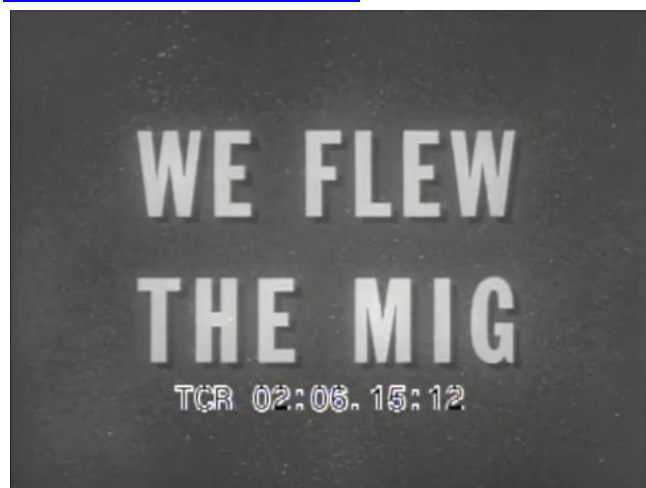
ON THE WEB

Mig15 versus F86

From Mike Feeney

Interesting video of US flight tests of a MIG-15 in the early 1950's. One of the test pilots is Chuck Yeager.

http://imageevent.com/okbueno/mopic;jsessionid=zsrmY8br84.eagle_s?p=70&n=1&m=-1&c=10&l=0&w=4&s=0&z=2

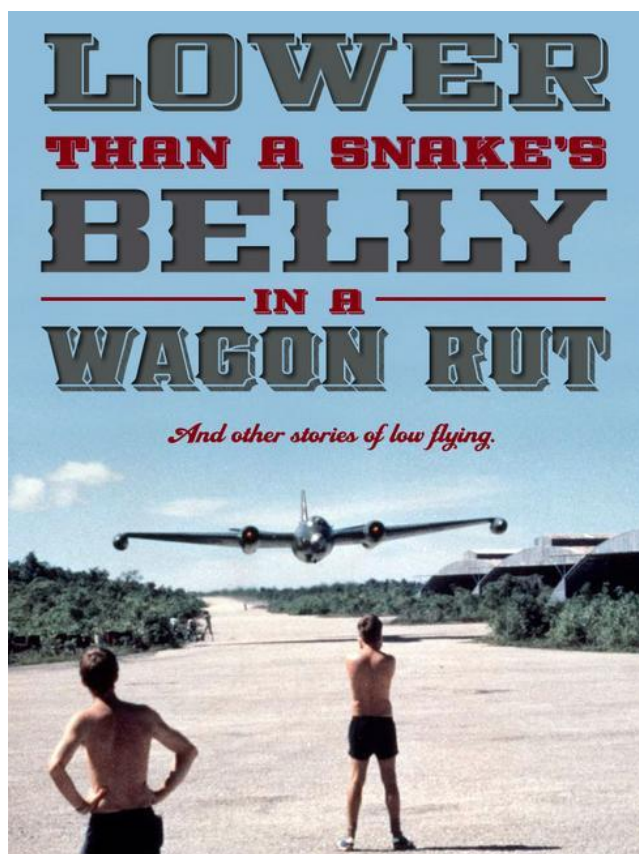


ON THE WEB

Lower the a snakes belly in a wagon rut

From David Rose

<http://www.vintagewings.ca/VintageNews/Stories/tabid/116/articleType/ArticleView/articleId/325/language/en-CA/Lower-than-a-Snakes-Belly-in-a-Wagon-Rut.aspx>



ON THE WEB

Model Jet

From David Wilkinson

<http://www.modelairplanenews.com/blog/2013/08/01/worlds-most-impressive-turbine-powered-rc-scale-jet/>
<http://www.youtube.com/watch?v=yC4jG-wuVoc>



ON THE WEB

Wake Vortex

From Airline Flying Club Newsletter

Wake Vortex On Landing

<http://www.youtube.com/watch?v=ViKYFsN3p24>



ON THE WEB

Hiding The Lockheed Plant in WWII

From Chris Wade

Hiding the Lockheed Plant during World War II. <http://stories-etc.com/hidden.htm>



Before



After

Chapter Events

2013

Oct 31 Chapter Monthly Meeting**Speaker:** John King**Title:** Zeppelins

The subject is John's recent visit to a Zeppelin factory in southern France.

Aviation Calendar

2013

Every Sat Dargaville Aero Club

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**Nov 02-03 Black Sands Fly-In****Raglan Airfield**

The regular season opener at Raglan Airfield, organised by the Waikato Thames Valley Chapter. Full page advert in the latest *Sport Flying*. Contact is Bruce Cooke at bmcooke@waikato.ac.nz or 021-112 2364. Accommodation www.raglanholidaypark.co.nz

Nov 09-10 Armistice Day**Cambridge**

Two days of military and aviation remembrance displays at Mighty River Domain, Lake Karapiro. Wide variety of aircraft displaying overhead, including Grumman Avenger, P40, P51, DH 82, L4 etc. Full program etc at: www.armisticeincambridge.co.nz

Nov 10 Matamata Fly-In & BBQ**Matamata Airfield**

Fly-in to Matamata Airfield, BBQ lunch from 12:00. Overnight accommodation available in cabins or campsites. For info contact Anna on 027-702 5924 or Rainer on 021-910 185 or email info@mac.org.nz

Nov 24 Warbirds Open Day**Ardmore**www.nzwarbirds.org.nz

Aviation Calendar

2014

Jan 04-05 Whitianga Warbirds and Wheels**Whitianga**

Mercury Bay Aero Club is combining with NZ Warbirds to stage a major event on the weekend of Jan 4-5. More details to follow.

Jan 26 Classics Of The Sky TG City Airshow Tauranga Airfield

Now to be one day event on 26th (AKI Anniversary Weekend). SAA will be supporting with a fly-in, our aircraft on display in the public area, and possibly some aircraft in the flying displays. Bob Byal is coordinating the SAA participation.

Feb 01-02 Healthy Bastards Bush Pilot Champs Omaka Airfield, Blenheim

More info to come at

www.marlboroughaeroclub.co.nz**Feb 20-22 Flying NZ National Champs Tauranga Aero Club**More info at www.flyingnz.co.nz**Feb 22-23 Tiger Moth AGM & Fly-in Location TBA**

For more info contact Maeva Smith on 03-208 9755 or croyair@ispnz.co.nz

Feb 22-23 Napier Art-Deco Weekend Hawkes bay Airport, Napier

Includes airshow and static displays both days 10:00 to 16:00 at Hawkes Bay Airport, Napier. A really full weekend with events for all tastes. There are so many events it's easiest to Google 'Tremains Art Deco Weekend' to see what interests you most.

Mar 7-9 SAA SportAvex and Golden Jubilee Bridge Pa Airfield Hastings

50th Anniversary of AACA/SAA at Bridge Pa aerodrome, Hastings. Start planning to be there as it will be a big one. No airshow, just a celebration fly-in. Includes AGM and Wings dinner. Evan Wheeler is coordinating the event so all offers of assistance to him please.

Apr 18-20 Warbirds Over Wanaka Wanaka Airfield, Wanaka

As for the Tauranga event, SAA will be supporting with a fly-in, our aircraft on display in the public area, and possibly some aircraft in the flying displays. Graham Taylor is coordinating the SAA participation. WOW is actively seeking more Sport and Amateur Built Aircraft participation. Can you help?

If members are aware of other events that could be of interest to others please pass the details to Gordon Sanders - gordon@sanders.gen.nz.

Black Sands 2013

The Waikato Thames Valley Chapter
of the Sport Aircraft Association of NZ
invites all recreational aviators to attend the annual
“Black Sands Fly – In”

Raglan Airfield
November 2nd and 3rd

An Informal, fun get – together for flyers of all types
Barbeque lunches both days
Flying Activities
Plenty of fun for families and non – aviators
Accommodation on Site
Plenty of great dinner options
Some of New Zealand’s best flying scenery
What more could you want?...

More Information will be posted at www.saa.org.nz from late September.



Contact Bruce Cooke,
bmcooke@waikato.ac.nz,
Ph 021 1122364.

Book your accommodation now at
www.raglanholidaypark.co.nz
(please support our hosts)



remember to tell them you are attending the fly – in

Please read the information before flying in – important safety notices are included.

Black Sands 2013

Raglan Airfield, November 2nd and 3rd **INFORMATION PACK**

About The Fly In:

Black Sands Fly – In 2013 is organised by the Waikato Thames Valley Chapter of the Sport Aircraft Association. It is open to anyone interested in recreational aircraft, be it custombuilt, microlights, gyro copters, gliding, model aircraft, vintage and warbird or factory built GA aircraft (and any others we've missed!). The aims of the weekend are pretty simple:

1. Have fun
2. Meet other people with similar ideas
3. Promote safe sport flying and encourage good airmanship
4. Have fun!

This is the 8th year of Black Sands, which has become a highlight of the sport aviation calendar. The location of Raglan airfield was chosen because of the many other activities within easy reach, and the excellent accommodation facilities at the Raglan Kopua Holiday Park. The popular Beach flying workshop will be held again this year on Saturday afternoon.



We want this weekend to be enjoyable for everyone, and we have intentionally kept it informal and friendly. We would encourage you to take part in some of the aviation activities we have planned, and local flying in this area is a great way to see some spectacular scenery.



Matamata Fly-In and BBQ

Sunday, 10 November 2013, BBQ lunch from 12:00 noon.

We invite you to our annual Matamata Aerodrome Mini Fly-In and BBQ lunch.

Land on our smooth and weather proven 1089 x 137 m grass runway.

If you wish to stay overnight campsites and cabins are available.

For further information contact Anna on 027 702 5924 or Rainer on 021 910 185 or email info@mac.org.nz.

