

# RecWings

The Magazine of the Canterbury Recreational Aircraft Club



- Spitfires in New Zealand
- 10 things about Autogyros
- Because he flies
- CRAC Safety Seminar
- AvKiwi Safety Seminars

**July 2016**

## It's not just Microlights!

Or LSA's... I hope the club's OK with this but we're all about aviation, even though we are a Microlight/LSA club. We all got into this because we love flying. The mechanism by which we fly is part of our passion, these are my excuses for hi-jacking this month's magazine to indulge a non-microlight interest in warbirds. I apologise in advance if this upsets you, I recommend a stern letter to the editor and that you demand your money back! Oh, and you should write up a microlight/LSA-related article for the August edition.

The "Spitfires in New Zealand" article was intended to be a 4 page summary, however it's impossible to do the job even in a brief way without exceeding the budgeted space. This month's magazine is now a record-setting 28 pages. I can only hope that it's small enough to e-mail out! The weird thing is that I only aim for 12. As I write and people send their scripts it keeps getting extended in 4 page bites (I'm sure I have mentioned that it needs to be divisible by 4 pages to get a centrefold).

One of the strange things about this magazine is that it just keeps going. Every month I finish it, I think that I've exhausted it and there's nothing more to give. In the two weeks that I'm not writing it, something always crops up to

inspire the next edition. I hope this continues, when I hit writer's block you'll know. You might get a 24 page blank notepad!

Actually that won't happen, I must thank the other contributors who really make this magazine a proper club one. My limited experience and wordsmith abilities would tire anyone, but the stories and articles that our club members contribute or recommend make the whole thing worthwhile.

At the moment I have one article for next month's magazine, suggested by Glenn and held over for space reasons and while I am seeking permission from the copyright owner to publish it, an informative piece on the procedure to cross Cooks Straight.

Please consider writing something for the club magazine – we have a huge pool of knowledge in our esteemed group, and you're a very likeable bunch of people. Don't be afraid to put pen to paper, especially if you have a safety lesson or theme.

Fly Safe,

Brian Greenwood  
Editor

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## Spitfires in New Zealand

Brian Greenwood

This article started with some musing about how many Spitfires and Seafires have been in New Zealand at some point (ignoring visiting Aircraft Carriers). I guessed five or six, but when I added them up I came to an impressive eleven, plus! Suddenly I had this month's starting article...

This is not meant to be an exhaustive list, if you know of any that I have missed, let me know. For real journalism, I recommend *Classic Wings*, it's a great magazine. This is just my way of celebrating a fabulous aircraft.

### *TE288 – Spitfire on a Stick*

The first Spitfire that I was aware of in New Zealand was the one mounted on the pole outside the Brevet Club at Christchurch Airport. As a kid this was something to be in awe of – this very pretty red-nosed aircraft banking into the Brevet Club. I only ever once saw it from inside the club but

it looked fantastic.

TE288 is a Mark XVII built at Castle Bromwich and delivered to the RAF in May 1945, just missing out on service in World War 2. It was placed into storage at RAF Cosford, but reactivated to train pilots for the newly re-activated Auxiliary Air Force. It was used by 501 Squadron and marked as "RAB-D", and it was damaged and repaired in November 1946.

After service it was stored and in 1955 it selected to be a non-flying prop in the film "Reach for the Sky". This was the story of Douglas Bader as published by Paul Brickhill. By this stage the airframe was engine-less and remains so to this day. During filming it wore the codes 'QV-X' and 'ZD-S'.

In the next couple of years the airframe was used for publicity purposes, being displayed outside at least one movie theatre in the UK. It was in this post-movie time that the fuselage roundels were re-painted too far aft, and this was never corrected until it was transferred to the RNZAF Museum.

In 1959 The Brevet Club (Canterbury) were looking for an aircraft

to display outside their Memorial Rooms near Harewood (Christchurch) Airport. The New Zealand High Commission in London took up their case with the Air Ministry, and in 1963 they were advised that their application had been successful. There had been 4 applicants in the ballot for this particular aircraft.

The aircraft was pole mounted outside the club, creating a distinctive landmark for the airport. It looked stunning, despite the original dodgy colour scheme and incorrect roundel position. It was removed from the pole a couple of times for essential maintenance, the first time also included replacing the fabric control



Studio publicity shot of Kenneth Moore as Douglas Bader, in TE288 (confirmed)





surfaces with metal (just the tail control surfaces on the Mark XVI, I believe) and correcting the colour scheme.

In 1983 TE288 was removed from the pole and restored to museum display standard for the RNZAF Museum by SAFE Air in Blenheim. Moulds were taken and a number of fibreglass replicas have been made for display around New Zealand and Australia, including a replacement one to go on the

pole at the Brevet Club.

TE288 now sits in resplendent glory at the RNZAF Museum at Wigram in slightly inaccurate markings as OU-V of 486 Squadron. It's worth a visit to this wonderful establishment just to view this aircraft, let alone all of the other aeronautical beauties.

### *TE456 Auckland War Memorial Spitfire*

The second Spitfire I became aware of was the aircraft in the Auckland War Memorial Museum. This is the same model as the Christchurch one, it also has a similar history. It was stored at the end of World War 2 (again this aircraft was too late to see war service) and re-activated for use by the Auxiliary Air Force in 1946.

It was allocated to 501 Squadron and coded RAB-J, serving alongside the Christchurch Spitfire TE288/RAB-D. It was passed on to 612 Squadron and then No.3 Civilian Anti-Aircraft Co-operation Unit.

After military service it was used as a flying star in the "Reach for the Sky" movie, marked as 'PD-S' and 'QV-Q'.

Like TE288 it received the full elliptical wings for filming.

In 1955 New Zealander Sir Keith Park approached the British Permanent Under-Secretary for Air for a Spitfire for display in the Auckland War Memorial Museum. Two aircraft were offered and Sir Keith chose TE456.

The aircraft was shipped to New Zealand in late September 1956. It was dedicated in a ceremony at the Auckland War Memorial Museum in a ceremony attended by Sir Keith Park. It had been repainted in its silver CAACU colour scheme (above).



TE456 in its RAF days.

Photo Credit: <http://www.raf-in-combat.com/>



In 1997 the aircraft was removed from the museum and restored to its 612 Squadron colours. A rededication ceremony was held, attended by a number of former Spitfire pilots.

It's currently displayed in an 'in-flight' attitude (wheels up) but with one cowl removed to show the complete Packard Merlin. The aircraft is a comparatively low-hour machine, with 646 hours on the airframe and a mere 161 on the engine.



*Left, a dodgy digital photo (actually a stitch of two) of TE456 taken on my least favourite digital camera, a Nikon 5700. I'm sure it was high-tech in the day but it seemed to have a huge shutter lag.*

***TB863 – Alpine Fighter Collection's first***

The LF-XVIE (high back, clipped wing) Spitfire was built in 1944 and issued to 453 (Australia) Squadron. In one of its early actions it was used to bomb German targets in the Netherlands. It was later used by 183, 567, and 691 Squadrons. Interestingly enough it was painted up as a yellow-nosed Messerschmitt bf 109 for the 1959 Farnborough Air Show re-enactment of the Amiens Prison Raid by Mosquitos.

Post war it was purchased by MGM and used in the film "Reach for the Sky" (I'm beginning to see a pattern here!) and then stored until required for the movie "The Battle of Britain". The best movie ever! From what



*Left, TB863 in company with the AFC's much missed (by me) Hawker Hurricane IIa. Warbirds over Wanaka 2006 ©Brian Greenwood 2016*

I can find ([www.daveswarbirds.com](http://www.daveswarbirds.com)) TB863 was only used as a source of spare parts in TBOB.

It went through a few owners until it ended up with Stephen Grey at The Fighter Collection. It was sold to Tim Wallis's (later Sir) Alpine Fighter Collection in 1986 during restoration. First flight after restoration was in September 1988, and then in New Zealand in January 1989.

The aircraft was flown in a natural metal state for a short period of time before being repainted in its wartime codes of FU-P , celebrating 453 Squadron.



TB863 was demonstrated around the country, and debuted at the 1990 Warbirds over Wanaka. While in



AFC ownership it had two accidents, one in 1990 and another in 1992. Both times it was repaired by Safe Air in Blenheim.

In 2006 it was sold off as part of the run-down of the Alpine Fighter Collection. Very appropriately she was purchased by the Temora Aviation Museum in Australia (given her history with the Australian Squadron) and is flown alongside their Spitfire VIII A58-758, giving Temora two Australian-flavoured Spitfires – a European one and a Pacific Theatre-based aircraft. How cool is that?



*Above, TB863 scrambles at Warbirds Over Wanaka 2006, which was the last WoW it was displayed at.*



Scanned from a very small negative, NH799 at Wanaka in 1994. Photo: **Mark Greenwood**

#### *NH799, the Mighty Griffon-Engined Mk XIV*

The Mk. XIV NH799 was built at Aldermaston and delivered to the RAF in February 1945. I've heard of Aldermaston as a Nuclear Weapons Research base (post 1950) but apparently it was used by the Ministry of Aircraft Production for final assembly and flight testing of Spitfires during the war.

In July of 1945 NH799 was transported to India where it was used by 49 Squadron (there are some doubts about this too; 49

Squadron was a bomber unit famous for flying Hampdens and Lancasters!), before being passed to the Indian Air Force in 1947. It seems likely but unconfirmed that the aircraft had a combat role in the Indian-Pakistan war around 1948.

Doug Arnold purchased the abandoned airframe in 1981 and shipped it back to the UK. The Fighter Collection at Duxford started restoring the aircraft. Subsequently bought by Tim Wallis's (later Sir Tim Wallis) Alpine Fighter Collection during restoration, it made its "second first" flight in the UK on January 21<sup>st</sup> 1994. It was shipped to New Zealand and made its first flight here in late March 1994, just a few days before its air show

debut at Warbirds over Wanaka 1994. After this it was flown at displays for the VE-Day commemoration at Wigram and the Commonwealth Heads of Government meeting (CHOGM). Both of these were flown by the late Tom Middleton, who lovingly referred to this Spitfire as a “seductive gypsy woman”!

On January 2<sup>nd</sup> 1996 Sir Tim Wallis took off from Wanaka Airport, during the take-off roll the aircraft swung to the right, lifted, and the tail wheel caught the top wire of a fence. It climbed to 10 metres before rolling and striking the ground. The starboard wing broke at the root from the impact, and the aircraft came to rest inverted. Rescuers rolled the aircraft onto its side and extracted the seriously injured pilot.

Sir Tim Wallis spent many years recuperating with the help of his family and has, thankfully, made a remarkable partial recovery.

NH799’s damaged airframe eventually found its way to AvSpecs and was restored for the Chariots of Fire

Fighter Collection based in Blenheim. It made its debut at the 2015 Classic Fighters show at Omaka, with a minimum number of hours test flying.

I recall the joy seeing it arrive at Omaka on the cusp of dusk, late on the practice day. In fact I heard it before I saw it, I was on my way for food and had to call my companion to grab the camera and record the first fly by (*photo, right*).

Hopefully this stunningly beautiful and powerful aircraft is around for a long time!



It’s certainly a welcome addition to our air show and warbird scene.



*Above, NH799’s performance at Classic Fighters Omaka 2015 was awesome. It was both an aural and visual treat, and just a pleasure to photograph.*

### *MH367 Two Seater delight*

A new build fuselage which contains the firewall and a small section of the forward fuselage, MH367 is often quoted as a “Aero Fabrication & Restoration Inc. Spitfire IX” instead of a Vickers Supermarine Spitfire Tr.9.

For purists it probably does raise the philosophical question “If you replace the handle and then the blade, is it still Grandpa’s axe?” , but for me this baby is all



Spitfire. Those of you with a good memory might recall that there was some difficulty getting an export permit for this aircraft because (allegedly) the U.S. Government still defines the Spitfire as a warplane.



The aircraft was brought into New Zealand in September 2008 by aerobatic champ Doug Booker, who is famous for his MX5 displays at airshows across the country. There have been a number of landing accidents in the aircraft, showing what a tricky aircraft the Spitfire is to handle even for experienced pilots.

We’re very lucky in New Zealand that the CAA have allowed paid warbird flights under Part 115 (Adventure



Aviation) Rules, these taking effect from 2011. We're well in advance of many other countries and kudos to both the CAA and the industry leaders for establishing this. (Addendum: I'm still trying to confirm this but it looks as though a similar rule was introduced in the UK in September 2015).

In New Zealand this aircraft has given the public the opportunity to ride in a Spitfire, although the cost is commensurate with the huge amounts of money it costs to operate these aircraft. Other options in NZ include Strikemaster, P-40's, and P-51 's.

MH367 is operated in the desert colour scheme of Wing Commander Colin Gray, New Zealand's highest scoring fighter pilot (His 'Spitfire Patrol' autobiography is a damned good read too!).

The aircraft is based out of Ardmore but has attended both of the major South Island airshows at various times.



*Above, this could be you! In the back seat at least.  
Go to [www.warbird.co.nz](http://www.warbird.co.nz) to book.*

### *Al Deere Tribute – Mark IX PV270*

This aircraft was built in 1944 at Castle Bromwich and shipped to Casablanca in October. It was used in Italy where it served with 111 Squadron as JU-F, 225 (Army Co-operation) Squadron as "WU-J", and possibly 253 Squadron. Post-war it was handed over to the Italian Air Force in 1947. Due to a large number of Spitfire air frames being worn out by their war service they were withdrawn in 1950.



We ♥ Spitfires! See the shadow under the aircraft.

PV270 was sold to the Israeli Air Force in 1952 where it was disarmed and used for aerobatic and air combat training. A mere two years later it was sold to the Burmese Air Force, and it was ferried out on June 29, 1955.

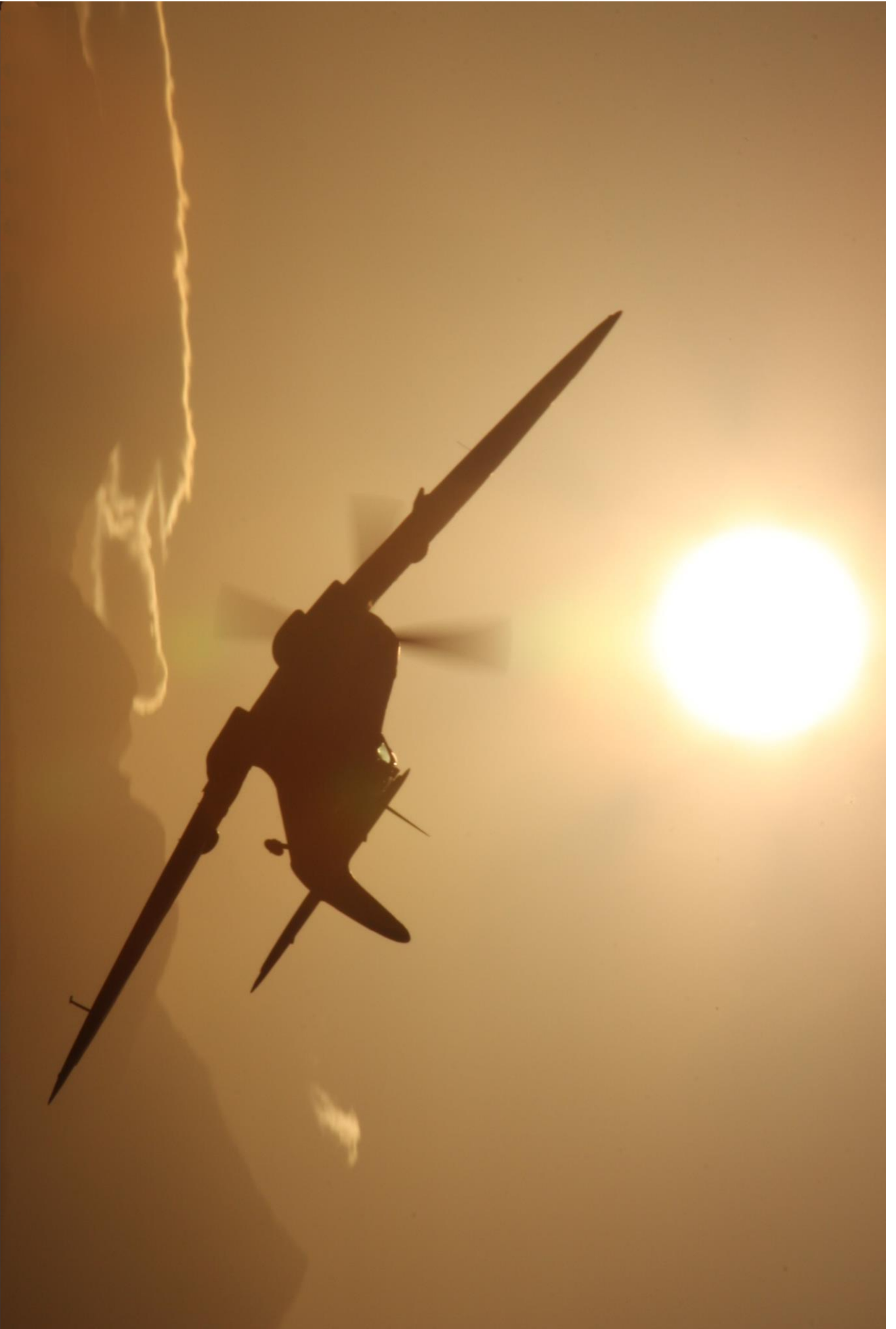
The Burmese Air Force used the aircraft operationally against the Kuomintang guerrillas on the North Eastern Burma and China border during 1955. In 1956 it was withdrawn and used as a gate guardian at Hmwabi Air

Force Base, and then moved to the Burma Air Force Museum in 1995.

In 1999 it was part of a deal of three Spitfires sold to an American Collector, and PV270 was on-sold to the Deere Family Trust in New Zealand. Brendon Deere has headed the restoration of this aircraft in tribute to his Uncle, Alan 'Al' Deere.

I believe (but am not 100% sure) that PV270 made its air show debut at Classic Fighters Marlborough in 2009. At least that's the first air show I saw it at!

A sight guaranteed to unblock the drains of any Heinkel driver, a Spitfire out of the sun! PV270 makes its debut at Classic Fighters Marlborough 2008.  
© Brian Greenwood 2016





PV270 has certainly been a welcome addition to the Kiwi Air Show scene, giving ample opportunity for even hack photographers like me to grab a good shot. Box Brownie at 1/30<sup>th</sup> sec (kidding).

### *Spitfire Vc - BL628 "Marion"*

Another Castle Bromwich-produced Spitfire, BL628 was originally built as a Mark Vb with 2x20mm canon and 4x .303 Browning machine guns. In February 1942 it was delivered to 401 Squadron RCAF based at RAF Digby in the UK. Apparently BL628 had many interactions with the new Fw-190, claiming 2 damaged and one destroyed. Pilot G.B. Murray named the aircraft after his girlfriend, Marion.

It was passed to a number of other squadrons before being transferred to the Royal Navy's Fleet Air Arm and converted into a hooked Spitfire in 1943.

It was used to train 899 Squadron pilots in Belfast (Northern Ireland) and then transferred to St. Merryn in Cromwell in 1944.

BL628's fuselage was found at St. Merryn in a derelict state some 30 years later. It was purchased by two Australians (Peter Croser and Michael Aitchison) and shipped to Australia, and partly restored, in 1997. There



*Above. BL628 courtesy of the AvSpecs Web Page*



was a mix of wing parts from local Vc and VIII Spitfires but no usable spars or leading edge skins. New parts were manufactured and the aircraft was delivered to AvSpecs in Auckland for completion, including finishing the wings.

BL628 took to the air again in 2007 and was test flown in New Zealand, before being shipped to the new owner (Lewis Air Ventures) in California. It won the Best Fighter Award at the 2008 EAA AirVenture at Oshkosh.

### *TE330 – Chinese connection*

This LF XVIe (similar to the Wigram example) was built in at Castle Bromwich and used by 601 squadron until 1950. It was used as an Instructional Airframe for a brief period before being transferred to the RAF North Weald Station Flight (which later became the Battle of Britain Memorial Flight).

In July 1958 it was presented to the U.S. Air Force

Academy for display at the Museum of Air Power. In 1961 it was transferred to the USAF Museum at Wright Patterson.

Its history is a little murky after this but it appears to have been sold off by the USAF Museum after they obtained a Spitfire IX (which they actually operated, unlike the XVI). It ended up in the hands of the Subritzky family in Auckland. The Subritzky's restored it to display condition and offered it for sale via Trademe. It was purchased by the China Aviation Museum and is currently displayed in Beijing.



TB252 at AvSpecs, photo shamelessly pinched from their facebook page, thanks, AvSpecs!

### *TB252 – Mark XVIe at AvSpecs*

Another high-back Mark XVI similar to the Alpine Fighter Collection's TB863, this aircraft was marked as MN-J "Mimie" while serving with 151 Reserve Unit, after which it was with 61 OUT, 33MU, and subsequently used as a gate guardian at Leuchars, then Bentley Priory (marked as GW-H), and then stored at Audley End.

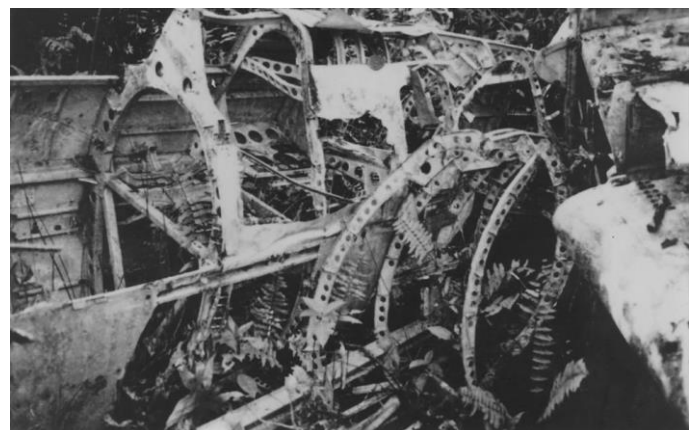
Eventually it was sold off and passed through several owners, eventually going to American warbird owner and

operator Tony Banta. He shipped it to AvSpecs in 2006 where restoration is currently well underway.

### *Just passing through – Mark Vc JG891*

This Castle Bromwich-built Vc was allocated to the RAAF and arrived in Melbourne in April 1943. It was allocated to 79 Squadron and served in the Solomon Islands.

In January 1944 it overran the landing strip at Kiriwina while landing in gusty conditions, and overturned while avoiding another aircraft. The hulk was recovered in 1974 and later sold to Don Subritzky. He



registered it as ZK-MKV and started to restore the aircraft (using parts from EF545).

It was sold on to Historic Flying in the UK as a partially restored fuselage and an incomplete set of wings. JG891 was completed as a Malta-based Spitfire in a desert colour scheme, complete with the Vokes Filter and four-cannon installation.

It was displayed in the UK for a period (owned by Spitfire Limited) before being sold to Comanche Fighters in Texas.

It's currently marked as Robert Stanford Tuck's Mk. V RS-T, so presumably back in a European scheme without the Vokes Filter.



*Above photo and previous page, JG891 on recovery and as exported to the U.K. respectively. Both photos from <http://rnzaf.proboards.com/thread/15290>, no copyright information available*



*Above, the unknown Seafire (probably SW853) awaits its fate with the scrap man at Hobsonville. Photo from <http://rnzaf.proboards.com/thread/7084/hobsonville-seafire-pics>, no copyright information given.*

### ***The Unknown Seafire***

One of the best looking of all the Spitfire/Seafire family, the Mark XV was a short nosed Griffon-engined version with the high-back fuselage.

This aircraft was damaged in an accident during a visit to Auckland by HMS Theseus in 1947. It was donated to the RNZN who later passed it on to the RNZAF and used as an Instructional Airframe. It appeared to be scrapped in the 1954 -55 period.

The airframe has been tentatively identified as SW853.



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Spitfire XIV NH799 at Classic Fighters Omake 2016  
© Brian Greenwood 2016



### Other Spitfires in New Zealand

There are rumours of another Mark IX at AvSpecs for restoration for an overseas company, and it seems likely that the Subritzky's had parts from other Mark V's. I'm sure this isn't the total list but it should all the major airframes. If you know of any I have missed, e-mail me at [editor@crac.co.nz](mailto:editor@crac.co.nz).

One last Spitfire-related aircraft, the awesome Mark 26 Replica owned and operated by Ivan Campbell. The Mark 26 combines the 75% scale wings of the Mark 25 with a new 90% scale fuselage. It even has two seats, the passenger sitting under the rear canopy. The family owners of the Supermarine name have given full permission to use the Supermarine name on these aircraft.

Ivan's Mark 26 is powered by a 6 Litre 420 HP V8 Chevrolet Corvette LS2 engine with a belt driven reduction unit for the propeller. It's painted in an accurate reproduction of Wing Commander Colin Gray's Mk XIV RM787.

Information from the wonderful NZ Civil Aircraft blog:

<http://nzcivair.blogspot.co.nz/2015/05/supermarine-spitfire-mk26b-and-other.html>

One of my favourite web sites, if you have never visited it you're missing out on a treat.



Ivan Campbell's spectacular Spitfire Mark 26 on display at Warbirds over Wanaka 2016.

## It's the oil for your Rotax 912

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## CRAC Safety Seminar – Weather and Mountains

Brian Greenwood

These club safety seminars are held on an informal basis throughout the year. This one was run by club instructor Volkmar Wollenweber who has an amazing understanding of weather and mountain flying (anybody who has flown with him can attest to this!).

Volkmar did an excellent job of explaining wind directions, pressure gradients, and other aspects. For me it was a good refresher on frontal systems too. After this he linked it in to Mountain Flying quite neatly. This is obviously a passion of Volkmar's, for good reason! If you've been lucky enough to be invited on one of his trips you will know that he delights in showing us Kiwi's our own country.

The Seminar went on to cover some of the human



factors as well. It seemed to be well received by the 20 or so attendees who ranged from low time beginners through to quite senior pilots. These events are a great way of learning and sharing information, and a good way to socialise too.

The club safety seminars do not replace such things as the full time mountain flying courses; in fact they encourage such participation and are a perfect precursor. I encourage all club members to get involved and come along to these events, you will either learn or add to the collective knowledge present.

## CAA Safety Seminar – AvKiwi “What happened here?”

Brian Greenwood

The CAA Safety Promotion Team runs periodic seminars on many aspects of flight safety under the AvKiwi brand. I've been to the “WX Matters” one last year (from memory!) and attended the “What happened here?” one in April.

It was well attended by CRAC members, when I looked around the packed room at the Canterbury Aero Club's room (the Christchurch Airport one) there were many familiar faces.

Being a Sherlock Holmes fan I had hoped that this one was about the way they deduce the causes of accidents (“the airspeed at impact was 85 knots by the mark the needle made on the ASI dial” sort of thing), but it was far more practical and relevant



than that!

Effectively they took us through 5 or 6 accidents and explained the causes and contributing factors in a frank and open manner. I am always humbled by pilots far more experienced than myself getting in to difficulty, so learning from others mistakes is a huge benefit to me. Some of these accidents had relatively good outcomes, so learning how these pilots mitigated the risks in the circumstances they were dealt is pure gold.

As with the CRAC seminars, I strongly recommend these meetings to all pilots. One of the things we learn is simple attitude (the pilot's, not the aircraft, although that's important too!) and a respect for safety. The more we talk about it in a frank and open manner, the more it becomes part of our planning and behaviour.



## Hangar Raid – Tony den Haan’s Savannah progress

Michelle Polglase

It’s fun visiting somebody for the first time by landing on their airstrip, then following that up by a car trip the following month. That was how I got to see the progress on Tony den Haan’s Savannah. Returning from a trip to Hanmer with Volkmar in his Alpi, we dropped in with Tony for a cup of tea, as you do when you’re practically flying over their strip.



Martin Hay organised an evening in Tony’s hangar, and returning five week later some serious progress had been made with the fuselage at about 70% and the flight controls built. No doubt a build is a labour of love, including the love of deburring, deburring, deburring. This is obviously better than a stress riser starting from a crack, but there seem to be a fair few hours involved in this task.

Also there was Claude McKavanagh, who had just experienced one of the best flights he’d had in this amazing run of winter weather:

“The isobars were 1028, there wasn’t a cloud in the sky and it was dead still. Graham Johnson asked if I wanted to go to Rangiora, and we flew up there in his scratch built, beautiful Bushcaddy. When we got up there we went with Paul and Wayne and followed the Waimak to Springs Junction and had a cup of tea, then flew around Lewis Pass just scooting around for about a four hour trip. Flying up through the mountains, not a breath of wind, no turbulence the whole way, absolutely calm. I’ve done a lot of flying but it was absolutely perfect, unbelievable.”

So whether you’re building or flying, make the most of it.



**Top Photo:** Volkmar Wollenweber and Tony den Haan discuss the usefulness of ice cream containers in aircraft building.

**Above:** Tony in front of his Savannah project

**Both Photos:** Michelle Polglase



## Aircraft Movements into and around Loburn Abbey

Mike Sheffield

If you plan to fly into Ivan Campbell's strip at Loburn Abbey please adhere to the new AIP plate for the strip.

If you wish to use the strip for emergency landing practice, then please contact him on 03 312 8008. If you can't get hold of him don't go. This is a private strip so respect this. Do not fly around over it at less than 1000ft AGL.

## RAANZ Executive meeting 17th July.

Mike Sheffield

RAANZ invites all club members to attend a breakfast at the clubhouse at 9.00am.

This is to meet the exec team and have a chat about issues that you may wish to know more about.

Entry is fee.

Please let me know ASAP if you are going so I can cater correctly.

## Flying Enthusiasts Meetup

Michelle Polglase

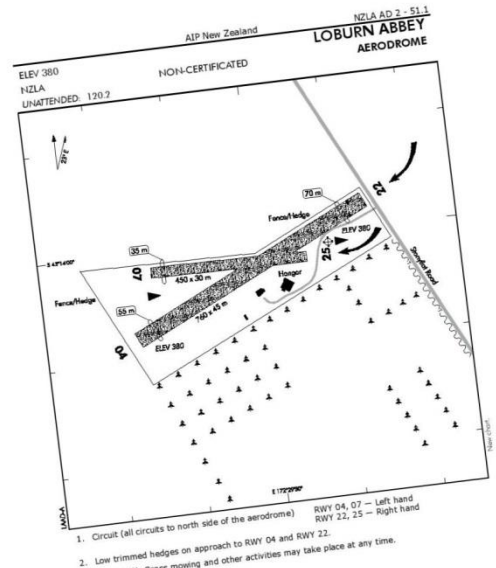
The inaugural Flying Enthusiasts Meetup saw a keen group head down to Five Stags, Rangiora to shoot the breeze on flying related topics. This is a social group, and with the support of many CRAC members can be a great way for people interested to find out more about a pathway into flying - or just get together and have a drink.

Feel free to join the Meetup group here:

<http://www.meetup.com/Christchurch-Light-Aircraft-Enthusiasts-Meetup/>

Note: the Club Captain will still be organising official CRAC club events.

*Right, some of the Meet Up group at the Five Stags on June 30<sup>th</sup>. Photo: Michelle Polglase*



**SAMPLE ONLY**  
**Page 1 of 2**

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## Keep off the freaking Grass!!!

This was mentioned at the July committee meeting: some aviators (possibly club members) are driving on the new grass taxiways at Rangiora. Please KEEP OFF until they're properly established – you can see the damage already to these areas. Aircraft seem to pose less of an issue.



# 10 Things about Gyrocopters

Trevor Shadbolt

Well I have been operating my Gyrocopter (Gyroplane, Autogyro, all the same thing) from Rangiora for a few months now, and had been a visitor from time to time when traveling down from Nelson for work.

So... I thought I would list 10 things that you did not know about Gyrocopters.

1. The Gyro was designed by Invented by the Spanish engineer Juan de la Cierva and was first flown on 9 January 1923, at Cuatro Vientos Airfield in Madrid. Juan invented the Autogyro as an aircraft that could not stall after seeing a very good friend spin in from a stall.
2. The RAF had two squadrons of Gyrocopters during the war and were used by the RAF and the DOD to test and calibrate the newly invented coastal radar, because they could fly very slowly and manoeuvre very tightly.
3. The Japanese and German's had submarine towed single seat autogyros for target spotting when at sea. If the submarine was surprised on the surface the tow line was



**Above, Avro Rota Mk 1 Cierva Autogyro in the Imperial War Museum at Duxford. Photo from <http://aircraft-photographs.s3-website-eu-west-1.amazonaws.com/helicopter-avro-rotamk1-cierva-autogyro-c30a-ww2.html>**



**A Focke Achgelis Fa-330 Bachstelze (Wagtail) preparing to launch from a U-boat conning tower. Source: <http://uboat.net/technical/bachstelze.htm>, no attribution listed.**

cut, the submarine would dive leaving the Gyro pilot to his own devices.

4. The US Mail service used autogyros and there are pictures of one landing one the White House Lawn, in fact the last one landed there last year as a protest and managed to evade all the security by flying in at very low level.
5. The Main rotor is not powered by the motor during flight but the rotor can be spun up to about 80% of flight RPM



**An autogyro , possibly a Pitcairn PA-18, in flight over the US Capitol. (George Mason University Library**

by a clutch and drive shaft from the motor. The rotors during flight are in autorotation and govern their own speed, in the case of my Calidus this is normally around 390 to 420rpm. During steep turns or the flare to landing the rotors speed up to around 460rpm.

6. The Flight envelope of a modern gyrocopter is from 0 to 100 knots.
7. Gyrocopters like all rotorcraft do not like negative G. Pilot induced negative G is a major no no!!! And is normally very life shortening.

8. Gyrocopters are making a big comeback and are starting to be utilised by law enforcement to patrol borders, crowds etc. as they can fly very slowly, can loiter for many hours, five in the case of my Calidus. Cost less than 10% of a helicopter and are far cheaper to maintain. FLIR and search lights are now being fitted.
9. Little Nellie and the Benson Gyrocopters made gyros popular during the 60's with plans appearing in Popular Mechanics, you taught yourself to fly them and in most cases some of the materials and construction technics were a little



Wallis WA-116 Agile Autogyro "Little Nellie" appeared in the 1967 James Bond film "You only live twice" and was used in publicity material. ©United Artists

suspect, the resultant casualties and the human desire to go faster and have more power gave the autogyros the bad reputation that to this day still follows them around.

10. Autogyros are very stable in turbulent conditions owing to their high "wing" loading and the speed at which the rotors pass through the air.

So if you see me around and would like to go for a flight, let me know, I may be able to convert you to the dark side.

Safe Flying

Trevor

ZK-REQ & ZK-RCZ.

## July Committee Meeting Notes

- Defibrillator application to be re-submitted
- Bank Bal roughly \$21K
- Expenses due: Landing Fees (collected from club members and included in the balance) \$3540, Club House and Hangar Insurance, Log book purchases and printing. Finances in a better position due to good flying hours on RGA
- RGA passed 1000 hours
- Busiest Month ever but hours not tabled
- Booster seat made for RGA
- Arnold has retired from Club A/c Maintenance
- Flying Enthusiasts "Meet Up" group successful, 2 potential new members
- People still driving on the new Grass (GRRRR!)
- SAA using the clubhouse for free for A/c maint course weekend 9-10 July
- Vote to change club alarm/door code failed
- Fuel company to be advised that we're very interested but will have to re-assess in 6 months due to finances
- Weekly cleaning of clubhouse to be prioritised
- Instructions for new club AudioVisual gear sought
- Secretary to write to builder re hangar issues
- Someone is using the club wheelie bin for domestic rubbish
- Loburn Abbey now has an AIP Airfield Plate – please read and treat it appropriately
- Forest Field breakfast 30/7/16
- Flock Hill fly in still in planning
- Thermostat/Oil cooler/Water warmer approved for RGA – approx. 500 Euros plus fitting. Will remove need for first flight .2 hour free
- TWR visit on hold
- ATC sqdn now official, parade in Chch 10/9/16
- Tony den Haan acting CFI 15/7 – 15/10
- RAANZ report from Roger:
  - 660 Members now
  - Meeting in Chch next weekend, BBQ at the CRAC House Sunday 17/7/16 for all
  - Working with CAA re Microlight Maint, and cross-credit percentages/hours
  - Instructors Skills course
  - Training and exam material being overhauled



## Because He Flies

Dave Hirschman, AOPA (reprinted with kind permission of AOPA)

A young man at my home airport recently passed his private pilot checkride, and one of the dozen or so people who gathered there to mark that happy occasion asked his parents a seemingly off-hand question: How much it had cost for their son to reach this milestone? The parents were caught up in the moment, and their sense of pride/relief/joy was more prominent in their minds than their checking account balance on that sun-splashed summer afternoon. But the question got me thinking about the not-insignificant amount this family had spent on flying, and whether it was worth it.

Their son graduated from high school a few weeks before getting his private pilot certificate, and a few





months later he was going off to college. I don't know whether he aspires to an aviation career, or frankly, whether employment considerations matter to the overall value equation. But having witnessed the transformation that took place in this teenager from the day he somewhat hesitantly started ground school as a high school sophomore, to the self-confidence that blossomed at the time of his first solo and the determination, skill, and knowledge he demonstrated during his

checkride, I'd say this family got the deal of the century.

But having witnessed the transformation that took place in this teenager from the day he somewhat hesitantly started ground school as a high school sophomore to the determination, skill, and knowledge he demonstrated during his checkride, I'd say this family got the deal of the century.


Because he flies, their son has learned a skill based on poise and persistence. His takeoffs and landings were atrocious at first. But he stuck with it, learned from his errors, took direction from his flight instructor, and consistently improved.

Because he flies, he has taken on responsibilities and self-reliance that few of his peers yet know. As pilot in command, he is the final authority on the safe operation of every flight—and the passengers he takes aloft entrust him to make good decisions. The fact that so many of his friends and family are not only willing but



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Wayne has just returned from his bi-annual, update course for Rotax Aircraft Engines at Bert Flood's facility in Australia. This keeps him factory current all the way to the beginning of 2018.



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**Email: rangiora.light.aviation@hotmail.co.nz**  
**www.lightaviation.co.nz**

eager to do so tells me their confidence is well placed.

Because he flies, he has learned both independence and teamwork. The independence comes from making decisions and being answerable for the consequences. The teamwork comes from cooperating with fellow pilots, mechanics, air traffic controllers, and line service workers, and knowing that all in our aviation system rely on each other.

Because he flies, he's learned respect. He's studied the aviation giants that have made it possible for us to fulfill mankind's long-held dreams of flight. He's interacted with professional pilots who have flown tens of thousands of hours and crossed oceans, and he recognizes their hard-won mastery of their art. He's seen the painstaking work that goes into designing, building, and maintaining vintage aircraft, and he's aware of the craftsmanship that goes into every detail.

Because he flies, he's got a healthy curiosity about the world, its geography, its weather, and the complex interplay between them. He can read aviation charts, and knows how to judge wind speed and direction from the surface of a lake, smoke stacks, or the shadows of clouds on the ground. He can navigate accurately using sophisticated avionics, or only a compass and a clock.

Because he flies, he's learned to plan for the worst, to prepare for aerial emergencies, and to always be ready to implement a Plan B (or C, or D) when things go awry. He's experienced the limited value of forecasts firsthand. And he knows limitations such as how far, how fast, and how high his aircraft can fly; how much fuel it needs to reach a destination, and how much weight is safe to carry.

Because he flies, he's learned to focus on the immediate task at hand. He can push the nagging trivialities of daily life aside and—at least during his time aloft—live entirely in the present.

Because he flies, he'll be less tempted by the dangerous impulsivity that does such harm to every generation. Driving recklessly means nothing to those who know they can fly far faster than any highway speed limit. Excessive drinking and drug abuse can ground aviators, so hopefully he'll steer clear of them. Flying rewards healthful moderation.

None of us can know what the future holds for our children. We do what we can to prepare them for this beautiful, violent, endlessly surprising world, but they make the choices that matter. Having watched this one young man's journey from the distance of a few hangar rows, I get the strong feeling that flying has prepared him magnificently for life's inevitable challenges. When times get turbulent, he'll keep the wings level. In adversity, he'll see things for what they are and coolly consider his options. When moments of decision come, he'll commit without hesitation.

I've got only admiration for his parents, confidence in him, and I'm grateful to be part of an aviation community that could bestow such meaningful and lasting gifts on a deserving young person.

### **Your advert here!**

RecWings is produced on a non-profit basis; any advertising revenue helps defray printing costs for those few club members not on e-mail.

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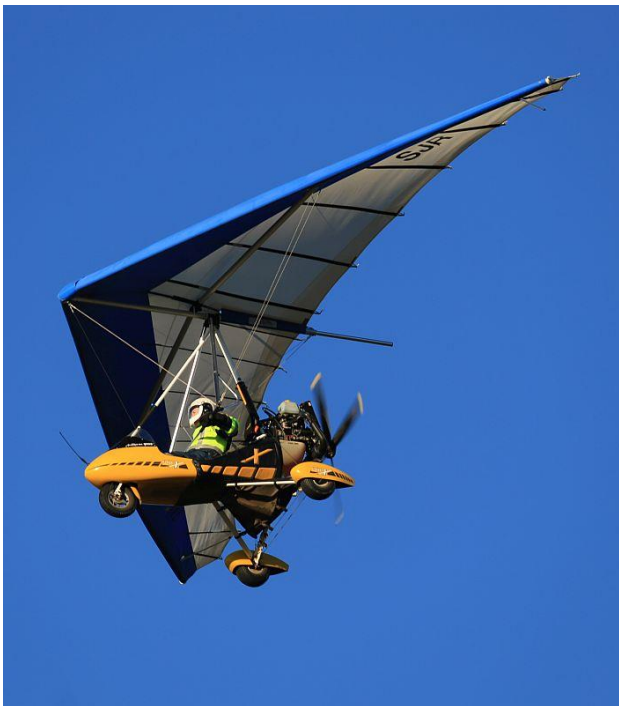
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*Above, Airborne Windsports Edge X582 ZK-SJR  
airborne off NZRT 07 on June 4<sup>th</sup> 2016.*

*Brian Greenwood photo*

## CALLING ALL AVIATION ENTHUSIASTS

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## Safety Officer's Report

**Duncan Fraser**

With the excellent flying weather our club members are making the most of opportunities and heading for the sky. I gain a huge amount of satisfaction of not only flying my own aircraft but from surrounding myself with like-minded people and sharing the aviation passion and utilising the opportunities we have, being members of CRAC.

As Safety Office and fellow club member I have a shared responsibility, just like we all as members do, to keep one another as safe as possible and ensure we all return home safely to our loved ones. One small part which I can play to achieve this objective is to communicate to you all concerns and objectives. I wish to convey those that I believe need reporting and ask each of one of you to play your part in maintaining a safe flying environment.

Become a defensive pilot by assessing and identifying hazards we can reduce the risk of becoming involved in an accident. Learn to expect the unexpected and be prepared to overshoot/divert/orbit or turn back.

If I was to identify just a few incidents which come to my attention I would note the following:

1. Taxiing aircraft crossing runways in front of aircraft on finals - yes, it can and does happen – so be prepared whilst on finals that the aircraft waiting on the edge of the runway may pull out and cross.
2. Radio calls – I frequently hear aircraft calling “joining overheard Rangiora” whilst I am flying from Forest Field, on 119.20! We cannot rely on the radio to give us separation of aircraft, it is simply an aid. Therefore “LOOK OUT” is the number one tool to keep us separated from other aircraft.
3. Position Reporting – whilst in the Rangiora MBZ there is a 5 minute maximum time between calls, however at times it can be difficult to get your calls in. Once again, “LOOK OUT”. The Transit lane along the coast from Amberley Beach to Godley Head continues to cause issues. The latest charts are on the table in the clubroom for you all to study and, if in doubt, ask an instructor. Once again, same old story – “LOOK OUT”.
4. Busy circuit – if the circuit is busy then I suggest the following protocol to alleviate further risks – all aircraft in the circuit keep their circuit patterns orthodox, i.e. no steep glide approaches etc. as it is not only those in the air that need to sight aircraft, it is those on the ground. If you're uncomfortable then vacate the circuit.
5. Radio dialogue – defamatory or scathing comments on the radio regarding the speed/ugliness/performance or otherwise of an aircraft can have a detrimental effect on the performance of the pilot flying the aircraft subject to the comments. I ask that we use peer pressure and report/reproach any pilot who negatively comments about other aircraft or pilots over the VHF Radio.

In summary I ask you all to look out for one another, to enjoy the privilege of flying and become a defensive pilot

## Editor's Comment

**Brian Greenwood**

I totally concur with Duncan's comments above, and would like to add my own comments (humbly, with humility and due respect to the higher time pilots out there). Firstly, try and eliminate mistakes from our flying, secondly, expect mistakes! We're all human, they happen. Sometimes you're the victim, sometimes you're the transgressor. When they do, be forgiving or ask for forgiveness. An apology in person goes a long way to making sure that all parties learn in a positive environment.

Finally, remember that there are a lot of learner pilots at Rangiora; a harsh word is ALWAYS the wrong response, especially over the radio.

## Committee Member Profile – Glenn Martin

### Who are you ?

Glenn Martin



### How do you earn a living?

I am semi-retired now, but I earned a living by building Jetpacks.

### How long have you been in the Club?

Three years

### What made you join?

I was "forced" by CAA so I could continue flying Jetpacks...then I got addicted !

### How long have you been on the committee and what positions have you held?

This is my first year, no specific position but I seem to be doing a few projects and maintaining the AIP...no one else wanted to.

### Do you have any directions or plans for the club that you would like to share ?

I think the club is great and very well run by a small group of keen people. As the club grows and the Aviation regulations evolve I can only see the club becoming even better. One of the concerns is to keep the cost of learning to fly at a reasonable price (in relative terms). To me that means using newer technology to reduce cost, not older technology. Things like shifting to a paperless cockpit, better systems like newer locator beacons, ADSB, real time tracking and more audits of maintenance are all coming whether we like it or not. The club has done a great job and in many places, is ahead of many other clubs and the GA clubs. I hope that it continues.

### What's your flying history?

I have always wanted to fly, since as early as I can remember. My first flight was with WW2 ace Johnny Checketts in 1971 ! That led to Hang gliding, and eventually I decided to build my ultimate "homebuilt" aircraft. I joined the EAA and built Jetpacks in my Garage. Then into Microlights, along the way I have been very fortunate to have flights in a wide range of aircraft and met some amazing Aviation people from NZ and overseas.

### What aircraft have you most enjoyed flying?

For thrill excitement and satisfaction of achievement...the Jetpack of course, which I flew 672 times. For leisure and relaxation the Sting S4. For reliving my Biggles books, the Tiger Moth.

### What aircraft would you most like to fly?

Hard question, either the Mustang...or the aircraft that is running around in my head that I need to design someday.

### Is there an aircraft you'd most like to own, if money was no object?

Mustang !

### What is your vote for most beautiful aircraft?

The Engineer in me says the Mustang....but as Meatloaf said, the "first cut is the deepest" my heart is forever taken by the Spitfire.

### Do you have any safety advice?

We are all amateurs, who think we know what we are doing, we don't. Just because you broke the rules on the last flight and got away with it, does not mean you will not be bitten next time. So do not break the rules....and practice, practice, practice...then go get some more instruction and start all over again.

# For Sale

## Rans S-6ES ZK-JOR

### \$25,000 o.n.o.

Rans S-6ES Built by Paul Woodley Aviation at Rangiora Airfield.



Rotax 582 Blue top with only 424 hours. Airframe has 1811 hours. About 150 hours since engine rebuild and 450 on crankcases. Annual completed recently. We are still using JOR - so the numbers may change a little.

Used as club trainer and has been fastidiously maintained to the Rotax recommendations.

Auto 2 stroke injection system.

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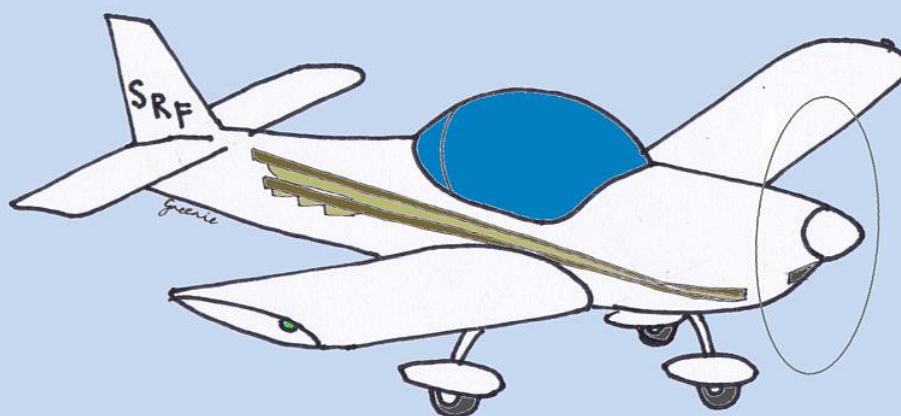
A delight to fly, comfortable and reliable. It has produced many fine pilots within our club.

The club has one Tecnam and is expecting another soon, so unfortunately JOR needs to move on to a good home.

<http://www.trademe.co.nz/Browse/Listing.aspx?id=1086210170> or e-mail [secretary@crac.co.nz](mailto:secretary@crac.co.nz)







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Interested in joining us?

E-mail [secretary@crac.co.nz](mailto:secretary@crac.co.nz) or use the online application form.

We can send you an information pack which includes membership details, costs, and joining forms. Membership enrolls you for the magazine, too.

## Upcoming Events

**July 17<sup>th</sup> 9:00am** RAANZ/CRAC BBQ at the CRAC Clubhouse. All welcome, a great chance to socialize with the guys who do all of the hard administration work and keep the CAA happy.

**July 30<sup>th</sup>** Forest Field Fly in and breakfast. Refer club e-mails for details.

**TBA** Possible CRAC Mid-Winter event

**TBA** Chch Tower Visit

**TBA** Potential Chch Radar Centre visit

Keep your eye out for club e-mails, or join the **CRAC Drop Of The Hat** WhatsApp group for informal group fly-aways. And **CRAC Revolutionary** for chat and photos of flying cats.

## Contributions and Attributions

A heart-felt 'Thank you!' to the following contributors: **Glenn Martin, Duncan Fraser, Trevor Shadbolt, Mike Sheffield, Michelle Polglase, Mark Greenwood**

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## New Members

Welcome aboard to:

**Liam Wedlake**

**Stephan Kriegelstein**

**Greg van der Hulst**

**Stephen Hirsch**

**Halena Hitchcock**

**Donald Weaver**

**Nick Ward**

Please make our new friends welcome.

## Congratulations

**Stewart Bufton**, Snr Flt Instructor

**Scott James**, Flight Instructor

**Basil Buwalda**, Flight Instructor

**Philip Seale**, Adv. National

**Brian Greenwood**, Adv. Local

(and about blimmin' time, Mr Greenwood!)

## Next Newsletter

Contributions requested, publishing deadline 3<sup>rd</sup> August 2016.

Brian Greenwood, Editor  
([editor@crac.co.nz](mailto:editor@crac.co.nz))