

RecWings

The Magazine of the Canterbury Recreational Aircraft Club



- New Club Aircraft Purchase?
- Rudder Users Group
- I Learned About Flying From That... Tribute
- Anniversary Trip – Easy Cross Country
- Bleriot First Flight
- Healthy Bastard Results
- Why not Class 3 Microlights?
- De Havilland Sea Vixen

February 2016

Upper Class Microlights, why not?

Brian Greenwood, Editor

I've been thinking about Microlight classes. Class 1 and Class 2 categories (which, to those not in the know, relates directly to the number of seats in the aircraft amongst other things) are great, but what about Class 3 or Class 4 Microlights? It would be very handy to be able to take a second passenger or extra luggage.

Because Microlights fly under a Flight Permit rather than a Certificate of Airworthiness I have always assumed that Microlights were limited to two seats to keep the potential for human harm down. As I've learned more, my view has changed to that of the seat limitation being about keeping the aircraft weight down. This is really the distinguishing feature of Microlights and LSAs, they are "low inertia" (i.e. extra light!) aircraft. The more weight an aircraft has to carry, the more the structure weighs. I'm sure it has to be some kind of exponential spiral.

Technology marches on, and newer materials have improved both airframes and engines. To a layman like myself, it seems that a lot of the development has gone into engines which typically power Microlights (such as Rotax) whilst the GA world lags behind due to the inertia caused by American Lawyers! Perhaps this is a naïve and somewhat jaundiced view, but it's an honest one. Is the time right to recognise this and extend the design parameters? The safest way to

get a "Class 3" aircraft would be to design one from the ground up, and perhaps it would have to be initially operated under the LSA category. Again, an explanatory note for those not in the know: an aircraft operated under the Light Sports Aircraft category has additional privileges but must be maintained by a LAME to Certificate of Airworthiness standards. Once the concept was proven then the new Class 3 category could be extended to operate under Microlight rules.

Since New Zealand generally aligns its rules to overseas, this development really needs to come out of somewhere like Europe or the United States. The New Zealand CAA are pretty pro-active (horrible word!) in encouraging development and innovation where it can see a safe way to do it.

Anybody have any friends at Tecnam or Zenair? Or the FAA?

Cover, Tim Gould and Stewart Bufton take to the air in Tim's very attractive Zenair CH-701, ZK-SLO.

Contents

Upper Class Microlights, why not?	2
CRAC New Aircraft Project	3
Decision Time – a New Aeroplane?	4
CRAC Rudder Users Group Notice	5
I learned about flying from that... tribute	6
Club Housekeeping	7
Warbirds over Wanaka update	7
An Anniversary Trip – Banks Peninsula	8
First flight of the Bleriot!	14
Propeller Request	14
An Unusual Visitor – AutoGyro Calidus	15
Healthy Bastard Competition Results	16
Committee Meeting Notes, February Meeting	16
De Havilland Sea Vixen	19
Modeller's Corner: Airfix 1/48 Sea Vixen	20
Modeller's Corner 2: Skunkworks 1/48 Royal Navy Tow Tractors	23
URGENT Reminder	23
Upcoming Events	24
New Members	24



CRAC New Aircraft Project

As indicated in the past few months magazines, the Committee have been spending some time on a proposal to replace the club Rans S-6ES, ZK-JOR. **You should have received your e-mail or snail mail notification of the SGM on February 17th, 7:30 pm in the Club House.**

At the December Committee meeting it was decided to accept a proposal to put forward to the club to purchase a new Tecnam. The proposed Aircraft will be similar to ZK-RGA and will operate under the same type rating. The financial plan was created by our Secretary, Graeme Main.

This will be a club decision; you're requested to get involved at the SGM and vote for your option. You don't have the right to grizzle about club decisions if you don't participate!

A few things to think about:

- JOR is costing us money – even not allowing for

depreciation it is making an operational loss. Really the charge out rate should be nearer RGA's (\$125/hour) which makes it a difficult sell compared to the Tecnam. There is no club (that we can find) charging out at a mere \$95/hour. This fits with the "conventional wisdom" of 2-Stroke costing similar amounts to 4 strokes on a long term basis, given the more frequent overhauls required (especially in the training environment!).

- At the moment it is extremely difficult for the club if someone books the Tecnam for an overnight Cross Country, if we had two aircraft that operated under the same type rating then this is more of an option for club members. We've had club members asking about this.
- Any new aircraft would have to be financed (we have a very favourable offer, more details at the SGM) so we would be betting our monthly income against the repayments. This is allowed for in the financial plan and more details will be provided on the day. Having a second hangar to rent is a major help!
- Tecnam aircraft don't seem to depreciate greatly, so the purchase is a good asset for the club.
- RGA's use is about 1.2 hours per day, JOR's is about 0.4
- Club flying hours increased dramatically after the purchase of RGA, a similar effect is expected for the next aircraft (RGB? Oh, that's already taken)
- GA costs are increasing; the average age of the aircraft fleet is increasing, as is the average age of the pilots. All of these factors suggest that there will be more pilots transitioning from GA to Microlight/LSA's. We're more likely to catch a larger portion of these pilots if we operate more modern (and, dare I say it, easier to fly, aircraft). This, from the guy who's in love with JOL!
- CRAC may be the largest club in the country, but we have a huge catchment area (easily Rolleston through to Cheviot, and even further afield) and there is plenty of potential to increase our numbers. There is no imperative to do this other than doing our best to share the joy, and to influence flight training in general with our own safety focus.
- There were several ideas mentioned at the last committee meeting for publicising the club now that we're in a better position with Instructors and we will require better equipment to support this.

Decision Time – a New Aeroplane?

Brian Greenwood

I've talked to people who clearly sit on either side of the decision, and will sum up the two arguments to the best of my ability here. Don't sue me if I get it wrong, it's all part of the open and frank discussion we MUST have before we commit the club to a single course of action.

To Buy:

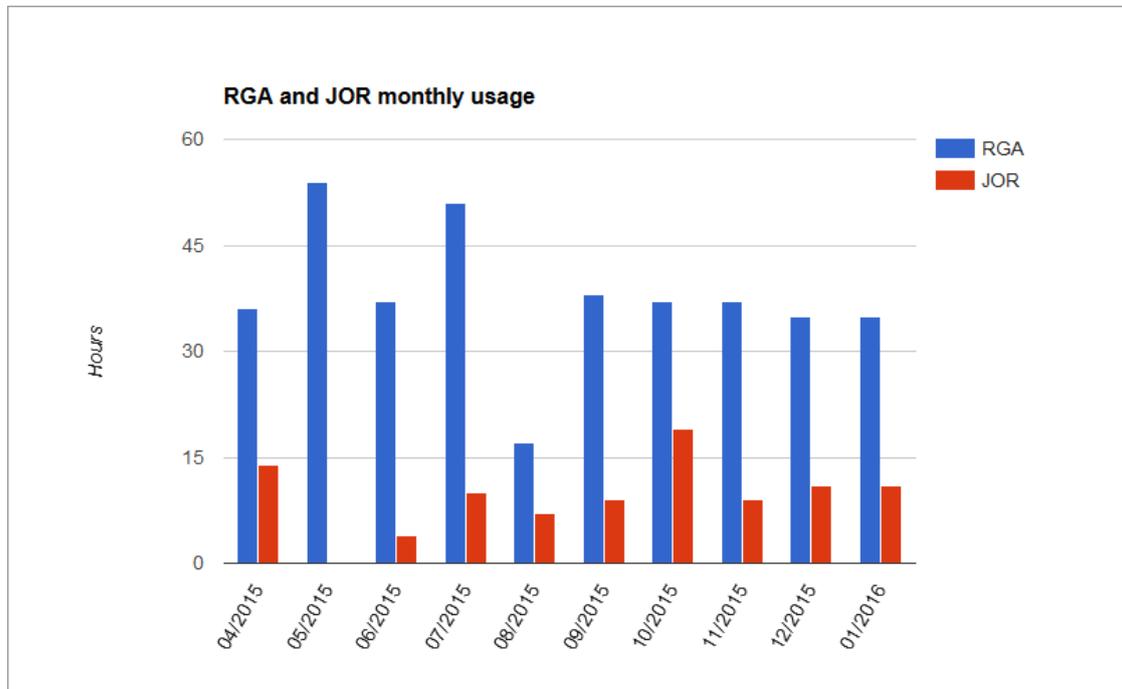
- JOR is as expensive to operate over a long period of time as RGA, pretty much anyway. Scott James has done some excellent work on this and we will look at getting the actual figures out for your edification.
- JOR has done a lot of time training and will eventually require quite a bit of work, replacement fasteners, skins, etc.
- Operating a 2-stroke in the training environment isn't generally as good as a 4-stroke (quicker warm up times is one of the few up sides!)
- Another Tecnam will give us a lot more flexibility of operations in terms of weekend bookings and cross country trips
- The proposed new aircraft will generate more training hours (hopefully!). We went from 200 – 300 hours per year with the 2 Rans to around 600 hours per year with the Tecnam and the Rans. We're budgeting on 600 – 700 with 2 Tecnams, more would be nice!
- The club has no ability to finance this through our bank, so a financial arrangement with one of our members at 5% is an opportunity that, at least, deserves serious consideration.
- Our aircraft are primarily trainers, members tend to learn on club machines and then purchase whatever interests them. The Tecnams are ideal in this regard.
- We should sell JOR and move on to new technology while it still has some reasonable value.
- Now is the time to invest in club assets, we're doing well and will do better with some promotion and publicity.

To NOT Buy:

- What's the rush, JOR is plodding along OK and attracting bookings –put the rate up!
- Money is tight at the moment – there are plenty of people in our catchment area hurting financially – Dairy prices are low and the Kiwi dollar is plummeting towards parity with the Matabele Gumbo Bead.
- 5 % isn't such a good deal, there are a few who would like that guarantee return on an investment (come and talk to us!)
- A few people still like the "harder to fly" approach to trainers – at the moment we can offer choice
- The depressed economy extends to aircraft – why sell JOR when prices are low?
- Let's keep building the bank account and buy the aircraft when we have a bit more of a deposit – can we borrow less than half? Can we achieve that in this calendar year?

That's all I can remember for the moment. There are a few other arguments like don't change at all, etc. Neither decision will likely break the club, unless something huge happens. The proponents say that we can advance the club while being financially responsible; the opponents say that we can be even more financially responsible.

Make your choice and VOTE!

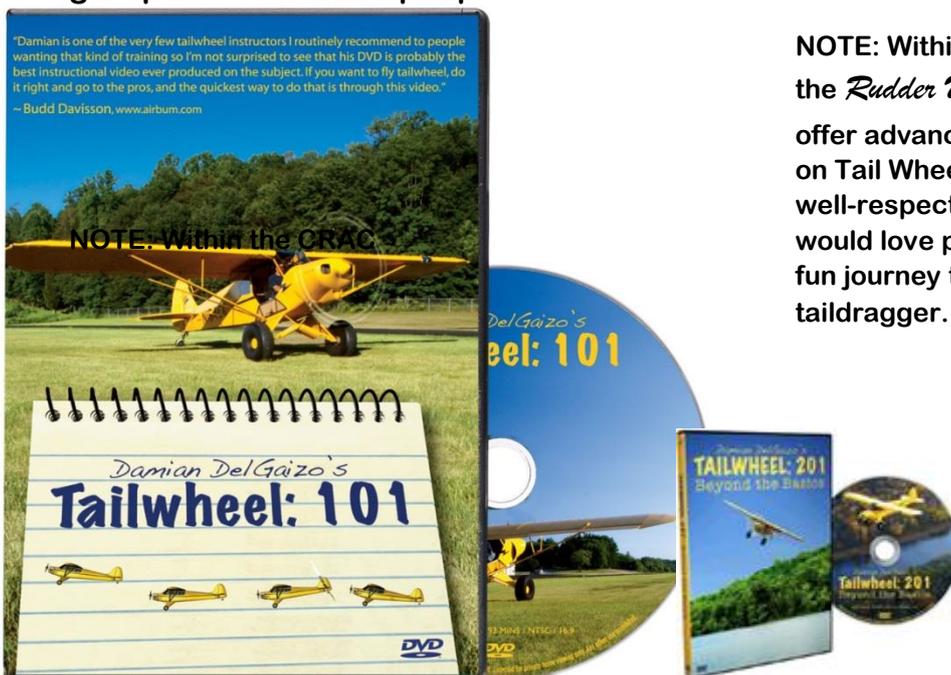


Rudder Users Group

**** Notice ****

We welcome fellow aviators to join us at the next meeting on Thursday, March 3rd at 7.00pm.

Here in the clubrooms, to watch the introduction to Tailwheel 101 with a group of like-minded people.



NOTE: Within the CRAC framework the *Rudder Users Group* is looking to offer advanced training, with a focus on Tail Wheels. We have procured a well-respected training scheme and would love people to join us on this fun journey to master the art of the taildragger.

I learned about flying from that... tribute

Graeme Main

In November last year Doug Anderson decided he needed to go to Riversdale (near Gore) to pick up a Morgan Cheetah owned by his good friend Bob Oliver. The Cheetah required some finishing work and this was best done in Christchurch, after which the aircraft would probably be offered for sale. I decided to ferry him down and he would fly the Cheetah back.

The flight down was uneventful, apart from a comfort stop landing near Tapanui, in a paddock which Doug had landed in previously and swore was ideal for the purpose, but turned out to have a Lucerne crop which due to the lush Southland climate was at that stage about 300mm high – causing my prized Brent Thompson prop to become a bit green around the leading edge, but no damage thankfully. Three hours to Riversdale at around 85-90kts (we had Peter Collins flying with us so speed was kept down somewhat to allow the Ibis to keep up) – with a fuel burn of 15 litres/hr. The landing at Riversdale was in a building nor-wester but we managed ok – an hour or two later it would have been a different story.

Accommodation was provided in Bob & Christine Oliver's recently-acquired Riversdale pub, and after inspecting the Cheetah, Doug decided it was good to go – although due to the conditions a test flight was not possible. The next day dawned wet and windy, and although Peter decided to go (that's another story which I will let Peter tell in his own good time) we decided that discretion was the better part of valour and we would try it the next day.

However although conditions were marginally better (no rain, well not much anyway), the southerly was blowing at 20 odd knots, and it was with some trepidation that we took off, heading for the east coast, as low cloud would stop us taking the direct route. Doug, as always, was upbeat about the situation assuring me that clearer weather awaited us at the coast, and after negotiating the odd shower, yes, the east coast did look better – a ceiling of about 2500 ft, but still with that howling southerly, which Doug assured me would make it a quick trip home. He was right about that, if not much else. We reached the coast near Milton and started the trek towards the Otago Peninsula, Conditions were acceptable until the peninsula hove into view and the southerly seemed to get a lot worse. I was hugging the coast at around 1000 ft, not liking the look of the turbulent whitecaps out to sea and not having a lifejacket, whereas Doug was much further out and much higher up. Turned out he knew a thing or two, because I got well and truly smacked around, and at one stage was down to 500 ft AGL over hills that were not much less.

It seemed that every time I crossed a bay, there was another one behind it, and I knew that the turbulence would not reduce until I was past the hills. Thankfully I had Doug in my ear reassuring me that it would get better soon, because at one point I was contemplating trying to land on a sandy foreshore – which would have probably resulted in major damage to the aircraft – but I felt that the best plan in these situations is just to grit your teeth,



hang on, and eventually it will come right. Well, it did, just south of Oamaru, and from then on we had a relatively good flight (groundspeed up to 135 kts) – until near the Rakaia River when it got rough again, and the landing at Rangiora on 22 was almost an anti-climax after the earlier part of the flight.

Interestingly, although we diverted well off the direct route, the time taken to get home was much the same as the flight there – around 3 hrs, and with a fuel burn of only 12 litres/hr.

What did I learn? Well mainly that if you are in the lee of hills which are getting belted by a southerly, get out of it – go up higher and well away from the worst of the turbulence. Also, that the Alpi will take just about anything the elements can throw at it – more in fact than I can. I did find on arrival at RT that the hatch cover behind the seats had dislodged in the turbulence and various items that had been in the parcel tray were floating around in the fuselage – thankfully no damage.

Graeme Main

Club Housekeeping

-Any change of addresses and e-mails, please advise us! secretary@crac.co.nz. The facility to change these on the web site will be removed as these changes were never communicated to the other systems.

- All flights must be paid for in advance or immediately after flying. We appreciate all payment types but we encourage everyone to pay by bank transfer. It's easy and safe! Our hard-working treasurer spends many unpaid hours doing the books, every weekend that someone pays by cheque or cash forces him to visit the bank to deposit them, which is a cost to him personally of at least 45 minutes or more.

If there is any way to pay by bank transfer, please do it!

Warbirds over Wanaka update

Those of us making the pilgrimage to Warbirds over Wanaka are looking forward to the exciting range of aircraft attending, which includes the Aircraft Restoration Company's Hispano Buchon (Me 109) and the RAAF BAE Hawk 127s.

Club member **William Love** advises that the WoW committee are still looking for volunteers. If you're interested, the Volunteer Manager, Clare Chapman, would like you to register here:

<http://www.warbirdsoverwanaka.com/volunteers.html>

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An Anniversary Trip – Banks Peninsula

Margo Migirdichyan

Today was an anniversary of sorts for Viktor and me. Exactly two years ago, as a birthday present for Viktor, I took us to the Rangiora Airfield for the first time to have a look around and find out more about microlight aviation. The decision was made out of sheer frustration with what seemed to be a continuous unlucky run in our hang-gliding activities. The last straw was the glider we brought here from halfway across the globe ended up being totally unsuitable for either of us.

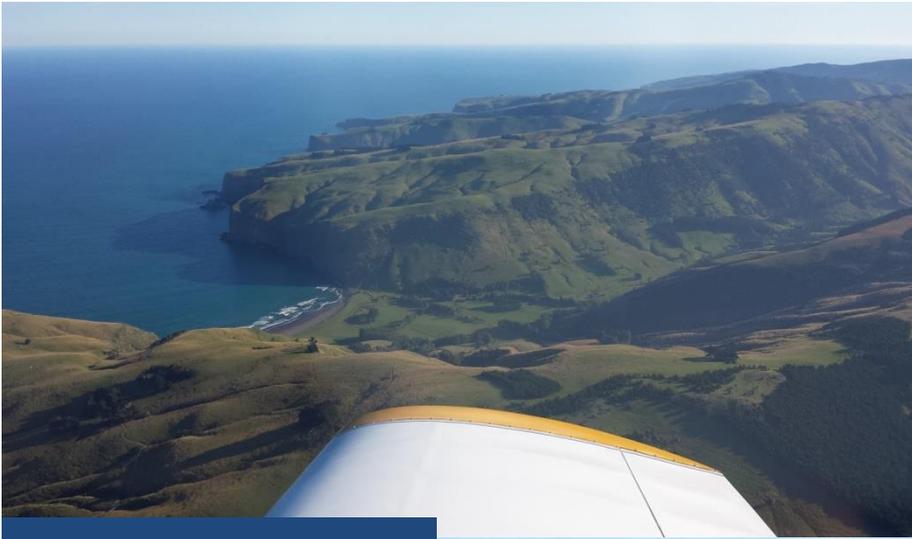
So here we were on the 1st of Feb 2014, looking at a very neat club house with not a soul in it - as it turned out, most people were at an airshow at the time. Our anticipation had to be kept on hold for a week, before we actually were able to go for a test flight, get the first lesson with Iceman, and complete necessary paperwork. And from there on began our journey. We met wonderful (and really patient!) instructors: Tony, Easwaran, Dave; and many other great people to share a yarn and a laugh with. In a year, with some subtle nudging from Tony, we decided to buy our own plane, an Alpi 200.

And just because the best way to spend a birthday (and any other day of the year, really) is to go flying, today we made a short trip around Banks Peninsula. For those of you who have never done it before and may be looking for a place to go after too many circuits, the trip takes roughly 1.5 hours and can probably be made in a club airplane. In my opinion, it has the best ratio of stunning views per litre of fuel. Talk to your instructor about details, frequencies to use and reporting points. One of the things to watch out for on a nice day would be paragliders soaring above the Peninsula.

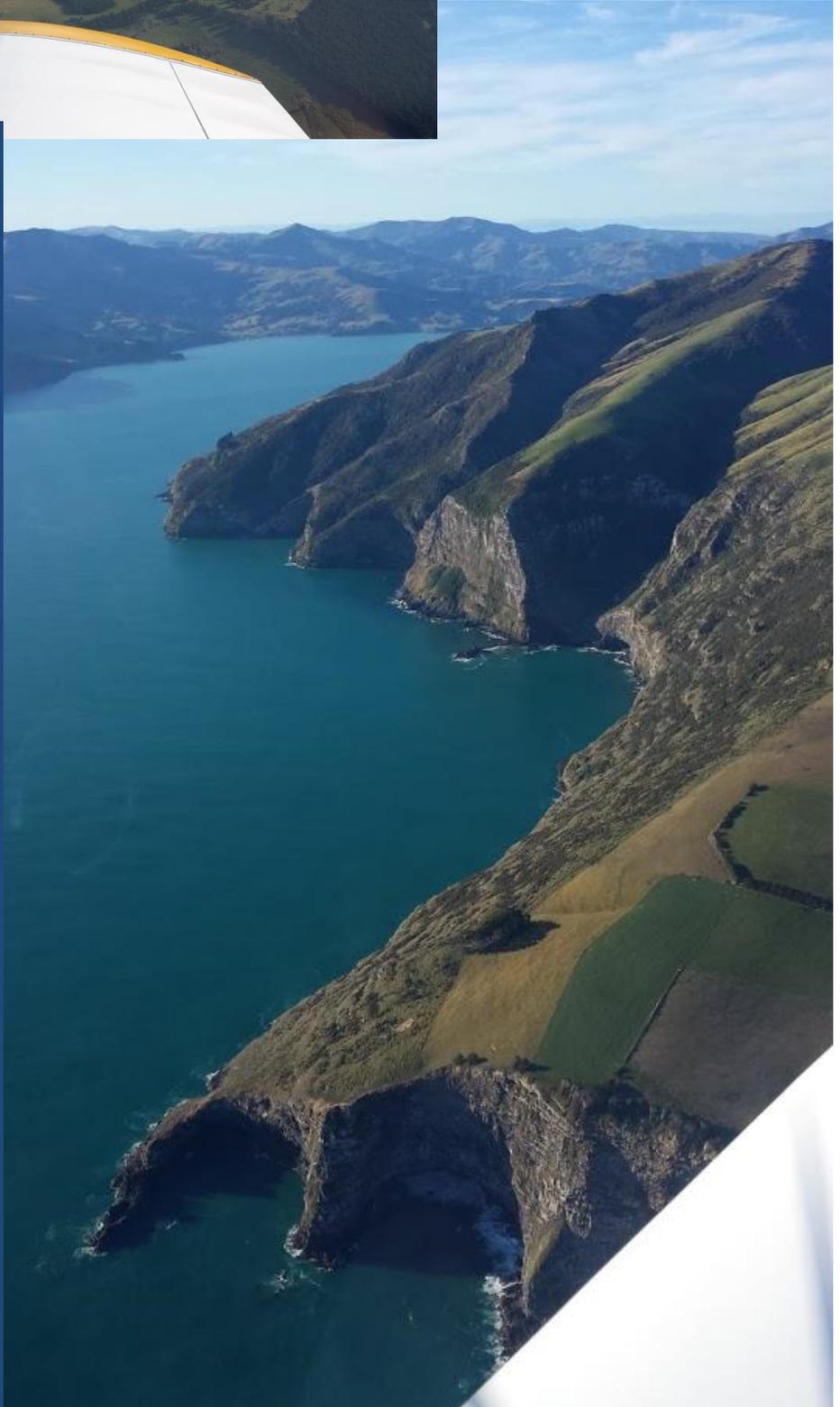
So here we go:

Tracking south along the coast, a nice outlook at the New Brighton Pier:





Left, circling around the bays



Right, reaching the entrance to Akaroa Harbour

Flying across it and continuing further inland towards Lyttelton Harbour. Akaroa township is in the distance.



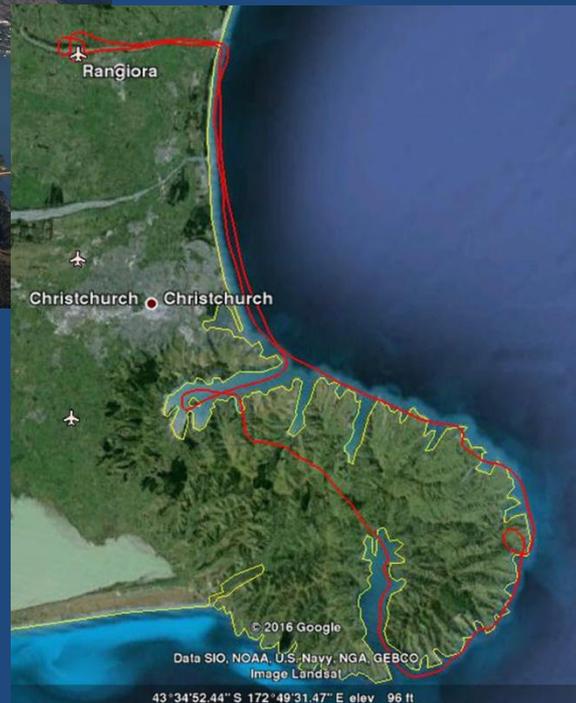
Pigeon bay

Approaching Lyttelton Harbour





I can see my house from here! ...and my reflection too, bugger!



Above, Circling above Quail Island: view over Lyttelton and Diamond Harbour. From here it was a simple matter of tracking back the same way along the coast up to the Ashley River Mouth.



George Gould brings the CRAC Tecnam in over the fence for a perfect touch down. Since this photo was taken RGA has had new spats fitted. Photo: **Brian Greenwood**



First flight of the Bleriot!

Brian Greenwood

Congratulations to Gert van Kruiningen on the first flight of his Bleriot XI replica, ZK-BXI. Evan Belworthy did the honours and took the aircraft for three short test hops on January the 31st. This is a fantastic achievement, and the aircraft really looks the part.

Have a look at the first flight on YouTube:

<https://www.youtube.com/watch?v=a-zWHSTI6gQ&feature=youtu.be>

Or Gert's web site: www.bleriotxi.com



Propeller Request

Gert van Kruiningen

As one of the experiments to get more power out of my Velie engine/ prop combination, I want to learn more about my propeller. I would like to compare it to other ones that fit my engine, and see what I could or should change. So if any of you have a propeller lying around, that fits my prop hub, could I please borrow

it. Now that's where the problem is I think. It's an old American one. If you have anything with these specs, please give me a call on 022 310 2207 and we can find out if it's going to fit:

The centre bore diameter for the Velie propeller hub is 4 5/8", so that's the diameter of the circle on which the centres of all of the bolt holes rest. There are 6 bolts, each 1/2" or AN8.



An Unusual Visitor – AutoGyro Calidus

On October 26th last year the AutoGyro Calidus ZK-RCZ (*see Page 17 as well*) registered to GoGyro of Nelson transited through Rangiora.

This rather swanky-looking machine is a German designed and built aircraft powered by the ever-popular Rotax 912 series. The pilot, whose name escapes me (sorry!), was hosted at the club for a pit-stop and was telling me how stable it is, very capable in turbulence.



Committee Meeting Notes, February Meeting

- Taxiway work still hasn't started, now appears to be scheduled for Mid-March!
 - Roy Waddingham has completed the new spats for RGA and these have been fitted (and look great!).
 - Christmas dinner at Caesar's was well attended and successful. Raffle raised \$185.
 - Bank Balance is roughly \$38K, \$5K still held back from Hangar. No unusual accounts to pay.
 - Monthly BBQ's suspended until further notices due to poor turn outs.
 - Two months activity on aircraft – 70 hours on RGA and 22 on JOR. Club will look at publicity material.
 - Safety officer reported that there had been no significant local incidents reported, however a reminder about controlled airspace procedures prompted a suggestion about evening training which will be organised.
 - Some discussion about Dynon failures in RGA, prices to be sought for replacing it with gauges.
 - Hangar remedial work still under discussion.
 - Fuel (95 Octane MoGas) availability on the field has progressed to a price being sought for installation.
 - Maps in the club house and club aircraft have been renewed.
 - Club to purchase a brand new computer for the club house (budget of \$1000 set).
 - John McCaul applying to the Air Rescue Trust for a defibrillator.
 - Clubhouse "fencing" by aircraft-friendly tussock grass started.
- Working Bee planned for February 27th. Please give some time for this!**
- ATC trial flights will be scheduled shortly.
 - Club House roof will get another coat of paint before winter.
 - Mail Chimp updated from the accounting system however member's updating details off the club site is causing confusion as this isn't notified to the other systems. This will be discontinued.
 - Some discussion about the club responsibility for member's RAANZ, BFR, and medical expirations. Aircraft flight sheets to be updated to reflect this.
 - Basil doing W&B calculations for the club aircraft, will organise a club day so members can also do their own aircraft.
 - Fly ins – see upcoming events at end of magazine.
 - Lots of discussion re new aircraft project (see articles).
 - Old club sign (which is damaged) to be disposed of.

Healthy Bastard Competition Results

The Healthy Bastards Bush Pilots Champs were held at Omaka during last weekend.

In what looks to be gusty and trying conditions, club Member (and reigning champ) Chris Anderson put in a very respectable third place in the Short Landing competition for the Microlight class. Both 2nd and 3rd place getters were in Zenair CH 701's, the 1st place was taken by Bruce Clulow in a Carbon Cub.

Congratulations to all concerned, this event just gets better every year.

Sorry for the stock photo, **below** – Chris has a much sexier cowling on TIA now.



AutoGyro Calidus ZK-RCZ departs
Rangiora – see page 15.



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Sea Vixen FAW.2 XP924 of the Fly Navy Heritage
Trust at RNAS Yeovilton, 16/9/2014

Photo: L M Gaylard

De Havilland Sea Vixen

Brian Greenwood

I know it's hardly a Microlight (something to do with the weight, landing speed, and a few other issues) but the Sea Vixen has always been a favourite of mine. I used to think of it as the real-life equivalent of Thunderbird 2 but perhaps that title should go to a twin boom-freighter instead of a fighter!

The Sea Vixen was an all-weather fighter developed for the Royal Navy from the De Havilland DH 110 prototype. The DH 110 (*right*) was proposed to both the Royal Navy and the RAF, the latter choosing the competing Gloster Javelin. The DH 110 prototype infamously broke up over the 1952 Farnborough Airshow, tragically killing 31 persons including the famous test pilot, John Derry. This accident resulted in many new air show rules.



The first squadron of Sea Vixen FAW 1's formed in 1959. The Mark 1 (*left*) was a better looking aircraft (in my extremely humble opinion) which could carry 4 Firestreak missiles, two in-built rocket packs, plus drop tanks. It could carry conventional bombs instead of the Firestreaks.

The improved FAW2 version entered service in 1964. This version dropped the inbuilt rocket packs but upgraded the missiles to the improved Red Top missiles (which could engage a target head on *if* it was supersonic). It also had the tail booms extended into a fairing forward of the



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leading edge. These contained additional fuel and ECM equipment.

The Sea Vixen was the air component of the force which prevented the 1961 Iraqi invasion of Kuwait, proving the deterrence provided by naval aircraft. The type was retired in 1972 with the introduction of the much more advanced McDonnell Douglas F4 Phantom II to the Royal Navy.

There is one Sea Vixen maintained in flying condition in the UK, XP924 is owned and operated by Naval Aviation Ltd., which is a subsidiary of Fly Navy Heritage Trust (see photo, Page 18). This trust is a support organisation for the Royal Navy Historic Flight, so the Sea Vixen effectively operates alongside the aircraft of this unit.

XP924 attends many airshows and is always a star performer. It's currently the fastest privately owned aircraft in Europe. It was one of the aircraft converted to be a pilotless drone, but luckily was never required as a target! It flies in the colours of 899 Naval Air Squadron, with the winged fist on the tail. One of the best and most recognisable squadron markings ever, I



reckon!

There's at least one other Sea Vixen capable of being returned to flight, XS587 at the Gatwick Aviation Museum. The engines are fired up occasionally; apparently it can shift a massive amount of shingle across the car park.

The Sea Vixen may not have been a supersonic superstar, but it deserves to be remembered as De Havilland's last fighter, and a capable all weather weapons system in its day.

Modeller's Corner: Airfix 1/48 Sea Vixen

Airfix released this kit in late 2010 and it quickly became a best seller. It's easy to see why, this kit marks the return of quality kits to Airfix, rivalling their superb 1/48 Lightnings of the late 90's.

It's a reasonably complex kit because of all the options, wings folded or not, undercarriage up or down, and three arrestor hook positions! My



example had some sink marks which required filling around the wing surface where the wing spars went, but nothing too serious.

Construction is reasonably conventional, starting with the cockpit and engine intakes being sandwiched between the horizontally-split fuselage. After that comes the two booms to support the tail

and the wings. There seemed to be a nasty gap around the flaps where they fit into the booms (maybe I was

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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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using the wrong part, I did get confused!) so I just filled the thing up and fitted the flaps in the lowered position (risking a fine at the bar



from the CO for leaving them down when parked!).

As this is a large aircraft with a big expanse of white, I pre-shaded in black (above, left) before painting the aircraft. The top colour is Extra Dark Sea Grey, which is a very nice but difficult to describe colour. My first choice was some old Aqueous Hobby Colour EDSG which sprayed on in a very lumpy fashion and looked far too dark. I had a plastic pot of Humbrol Acrylic EDSG which I wasn't keen to try (having had bad luck with Humbrol Acrylics in the past) but I gave it a go. It sprayed beautifully (thinned with Tamiya thinners) and I used it to counter-shade the Aqueous Hobby Colour EDSG. This "post-shading" looked quite good to my eye and is my best attempt yet. It made a nice change to have a single upper surface colour.



After the top coat I applied a couple of coats of Johnson's "Klear" floor polish in lieu of a gloss varnish, and started applying the decals. Gone are the days where the decals can be applied in one evening, it took several weeks of free evenings to finish this step – there's hundreds! Even so I think I missed some off the undercarriage.

After this it was a matter of completing the detail parts such as

undercarriage, drop tanks, missiles, aerials, and canopies. The Sea Vixen had a second cockpit for the Observer (Radar Operator) buried in the fuselage to the right of the pilot's cockpit, explaining why the Pilot's cockpit was offset to the left. The main reason for this type of buried cockpit seems to be allowing the Radar operator to view the radar scope – early CRT screens being not very bright.



On the FAW.1 version the Observer's Cockpit was covered by a solid metal hatch (with a very small window) flush with the fuselage surface. On the later FAW.2 the hatch was raised slightly to give the observer more headroom, and was a frangible Perspex cover that the observer could eject through. Generally these were painted black on the inside in service, however XP924 currently flying in the UK has this left clear – presumably to make the ride less claustrophobic for any passenger.

On the subject of FAW.1's, a very nice company called Alley Cat has made a conversion kit for the Airfix kit to back-date it to the FAW.1. I have one of these in the build queue but think I'll give Sea Vixen's a rest for a little while! The conversion supplies a new forward fuselage with the older Observer's hatch, a new Windscreen and

Canopy, smaller Mark 1-style booms, some beautiful Ejector Seats, and several sets of transfers along with complete instructions.

I'm just about finished this kit, still a couple of aeriels to attach but it's good enough to photograph for the magazine deadline!

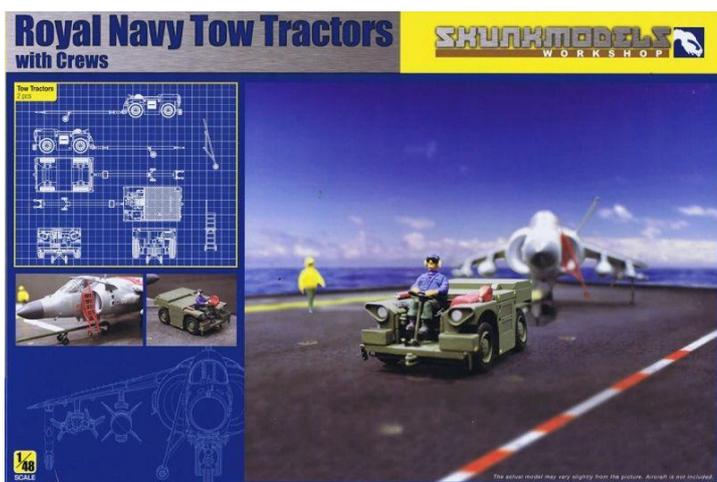
Airfix have done an excellent job with this kit, it's very buildable with only a few minor issues. It's the first ever accurate model of and unusual and often over-looked

aircraft. Thank you, Airfix, can I vote for a 1/48 Supermarine Scimitar as a companion to the Sea Vixen?



Sea Vixen Photo Credits: All Brian Greenwood except P18 LM Gaylard (Creative Commons licence), P19 top and centre U.S. Navy (Public Domain), P20 Top and Centre, Isaac Newton, www.hmsminerva.info (Creative Commons), P22 bottom right, Fred's Five aerobatic team, www.aerobaticteams.net

Modeller's Corner 2: Skunkworks 1/48 Royal Navy Tow Tractors



A recently announced model is the 1/48 Tow Tractor used by the Royal Navy from the early 1980's up until recently. This fits in perfectly with the Sea Harrier and Harrier Gr.7/9 era.

I guess it's no coincidence that Skunkwork's sister brand, Kinetic, has just released 2 superb Sea Harrier kits, a FA.2 and more recently an even better FRS 1.

The Tow Tractor kit comes with two complete models, including two crews, and even has bonus

boarding ladders for the Sea Harrier. Better still; the back of the box is printed as a deck section off an Invincible-Class Aircraft Carrier which should fit a Harrier and Tractor quite well. Might be a tad on the small side for the Sea Vixen though!

The kit builds up easily, and is a great way to relax in front of TV without having the complexities of an aircraft kit. Oddly the tyres are moulded in two halves with the seam running around the mid-diameter point; I guess this allows details to be moulded into the side walls where it will be seen. The hubs are separate which enables them to be sprayed without masking. I brush painted the tyres in Tamiya XF-85 Acrylic Rubber Black, which is a new colour to their range. Usually I have trouble brush painting Acrylics but it worked well this time.

The instructions clearly show the two different colours that were used on these in service, it seems that the



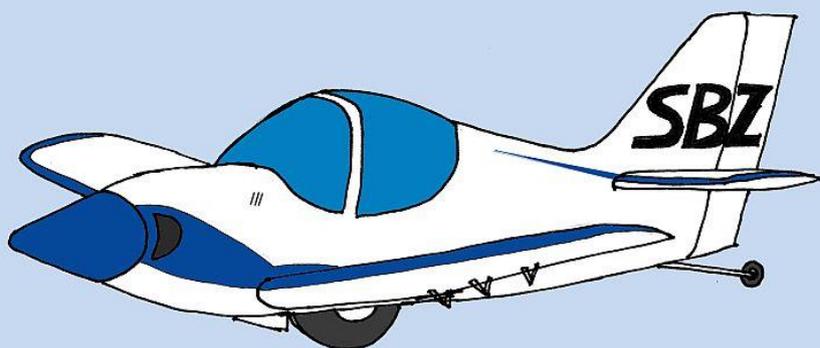
Tractors in use around the time of the early Sea Harrier FRS.1's were yellow, and by the mid 80's were a camouflage green (of some sort!). I've seen a photo of one of these on the deck of HMS Invincible returning from the Falklands War which is in the yellow scheme, but it doesn't appear to have the red water tank embedded in the left front fender. More research is needed...

In summary, this is a neat, simple, fun kit of a nice wee "go-with" for your Sea Harrier Collection. (My what?!)



URGENT Reminder

Don't forget to check your **BFR** expiry, **RAANZ Membership**, and **Medical Declaration**!
Remember you're not flying legally if any of these have expired.



Canterbury Recreational Aircraft Club (Inc)

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Interested in joining us?

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***Disclaimer:** This Magazine is prepared by dedicated enthusiasts; the opinions expressed herein are not to be taken as official club policy unless approved by the committee.*

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Upcoming Events

17 February - SGM about new Club Aircraft, Clubhouse, 7:00pm

20-21st February – Mandeville Fly-in

27th February – Club Working Bee! Please attend, Saturday morning 9:00am

TBA - Staverley/Mt Somers Club Fly-in. A Partner-friendly trip!

25-27th March (Easter) – Club Fly-in and camp at the CRAC Oxford airfield

25-27th March (Easter) – Warbirds Over Wanaka.

3rd April – Sheffield Wings and Wheels

Contributions and Attributions

Graeme Main –“I learned about Flying from that” article

Margo Migirdichyan – “An Anniversary trip – Banks Peninsula” article and photos
Sea Vixen Photo Credits P22

Brian Greenwood - Modeller’s Corners

Next Newsletter

Contributions requested, publishing deadline 2nd March 2016.

Brian Greenwood, Editor
(editor@crac.co.nz)

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New Members

Welcome aboard to:

**Alex Baker
Philip Share
Hayden Bell
Douglas Pilbrow
Richard Harkiss
Peter Fantham
Kevin Dore
Jerry Philip**

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