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AUGUST 2017

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Don't forget to socialize

There are a number of benefits to mixing in a group of people who share the same interests or requirements. In this case I'm obviously talking about our club, but it works for many other aspects in life as well. I know that life would have been far more difficult if we hadn't been in contact with other parents of special needs children too. Or sharing information with owners of other similar aircraft or cars.

In CRAC's case the benefits, for me, have included absorbing the general attitude to flight safety and 'doing the job correctly'. Once a pilot is past the requirement to take an instructor along for every flight we run the risk of imposing our own idiosyncrasies or simply forgetting some processes. I've mentioned it before as an example, but you only have to look at the number of drivers who forget how to use a turn signal after they finish their training. If you fly with a group of CRAC pilots (in my experience anyway), you'll always hear great radio calls and position reports, and be exposed to some very good airmanship.

Other benefits, however, are just plain good fun. We had the CRAC Mid-winter meal a few days ago as I write this, and it was very poorly attended. Admittedly the venue and times had changed since it was first announced, and it was in the middle of some fairly extreme weather, but it was thoroughly enjoyable. The food was great and the company was even better. The conversation ranged from the value (or otherwise!) of bitcoin through to, well, a lot of aviation topics! For example, I found out that Wayne Wilson has *forty times* the number of flying hours that I do. Not bad, eh?

It was a very enjoyable evening and my thanks to Club Captain **Mike Sheffield** for organising it. I'd definitely go again even if I knew there was only going to be a handful of attendees!

I'm looking forward to the next event, the club picnic at Culverden Air Strip. Here's hoping for some suitably fine and calm weather.

Front Cover: "Never shoot an aircraft from the underside" is one of those photography rules that need breaking occasionally. Paul Godfrey in his Kitfox JFA breaks away from JOL during a photo run. Photo © 2017 Mark Greenwood

'RecWings' logo by <mark>Eric Lim</mark> criemil@yahoo.com

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Kitfox - a brief History

Originally built by Dan Denny (Denney Aerocraft) in Boise, Idaho. First flight 11/1984

Model range extended to the improved models 2,3,4.

In 1992 the rights were sold to SkyStar Aircraft who developed the Series 5. SkyStar was taken over by an employee consortium in Jan 2000, who launched the Series 6 and the "Lite Squared".

In 2002 the Kitfox Series 7 was introduced to conform with the FAA's (then) proposed LSA category. After the proposed rules were altered it became apparent that the whole model line-up needed revising.

SkyStar went bankrupt in late 2005, and the assets purchased by Kitfox Aircraft, which is run by a former SkyStar employee.

Club Kitfoxes Words **Brian Greenwood** Air to Air Photos **Mark Greenwood**

I know of four Kitfoxes associated with CRAC, the first of which is Paul Godfrey's ZK-KNZ. This is a Kitfox 3 powered by a Rotax 582 of 64 horsepower.

Paul bought the aircraft in the early 2012 and refurbished it extensively. I was lucky enough to score a flight in this aircraft when he took me on a flyin to Kaikoura a couple of years ago. The Kitfox is a lovely wee plane and I can understand why he likes them so much. In the air you don't notice that missing nose wheel! (Sorry, in-club joke and a gentle jibe at the Tail-Dragger guys, who I fully intend to join one day).

KNZ is pristine and a real credit to Paul, especially since it hadn't flown in the decade prior to his ownership.

Paul obviously likes Kitfoxes since he jumped at the chance to buy another,



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presumably to give him a breeding pair. The new aircraft is a 1995 SkyStar Kitfox IV powered by a Rotax 912. Far from putting KNZ out to pasture, it's being used for tail wheel training which sees it flying quite often.

ZK-JFA is, as seen on the cover, quite sprightly with its 80hp Rotax 912. It has a longer range than the Kitfox 3 which makes it easier on those cross countries. Paul's spent a lot of time tidying the aircraft up before using it, again it looks extremely good.

I notice that **JFA** has a wider landing gear than **KNZ**, which (Terry Salmon assures me!) makes the latter a better tail-wheel trainer. It must certainly help focus one's mind on the job-inhand. Some Kitfox versions are available as tricycle undercarriage aircraft, but the tail wheel option looks far better to my mind.





This must be one of my more fun flights recently, and Mark's photos show the Kitfox 4 off to good effect. The upgrade has given Paul an aircraft with a longer range and a higher cruise speed than the Kitfox 3.

Paul's brother, **Mike Godfrey**, has also been bitten by the Kitfox bug and purchased ZK-KIV in December 2014, and is currently refurbishing it at Rangiora. Not surprisingly (given the registration) this is a Kitfox 4. This time the power comes from the redoubtable Rotax 582.

In October 2015, three Kitfoxes were displayed in front of their hangars in quite a memorable display. If you



Above, **Mike Godfrey's** Kitfox ZK-KIV at the Rangiora Airfield open day, showing the high standard of workmanship on these aircraft. The Rotax 582 is shown in detail, **Right**

remember this Open Day you will recall that the weather was dismal, and many of the public didn't venture far past the GA area of the airfield. Those that did seem to be impressed, and a few didn't believe us that "these were microlights"!

The fourth member of the CRAC Kitfox family is **Steve Noad**'s ZK-JWN (*below*). This is a Kitfox 3 similar to ZK-KNZ (and I believe also powered by a Rotax 582. It, too, looks immaculate.





The three aircraft certainly made for an impressive line-up.

I'm told there's another Kitfox based out of Rangiora at the moment, ZK-CGT. I'm not sure if this is owned by a club member or not.

Thanks to Paul for the additional information and corrections.

Kitfox Models De-mystified (Slightly) Brian Greenwood and Paul Godfrey

If you, like me, are confused by the plethora of Kitfox versions, here's a vague attempt at discombobulating the situation.

Model 1 - original 1984 version with Rotax 503 or 532 options and radial cowling (for an intended radial engine that was never developed). One of the first microlights to have folding wings, and able to be built by handyman in a two-car garage.

Model 2 - larger version introduced in 1989, Rotax 582/64hp (Gross 950 lbs)

Model 3 - Structural changes and improved flight characteristics. Engine options includes the 80hp Rotax 912

Model 4-1050 (1991) Laminar flow aerofoil, metal flaperon attach brackets, and a new 2:1 aileron differential system. Gross weight same as the Kitfox 3, 1,050lb (476kg). Standard engines 64, 80, or 100hp Rotax. 322 built.

Model 4-1200 a.k.a. The Kitfox Classic 4. some structural beefing-up with a maximum allowed gross weight of 1200lb (544kg)

Model 4 Speedster - Same as the Classic 4 except a shorter wing span, higher roll rate and cruise speed

XL - lightweight version of the Classic 4 with the 50hp Rotax 503 as standard. Meant as an ultralight trainer but did not sell well

Lite - Single seat ultralight for the US market - powered by a 28 hp 2si motor

Lite² (LiteSquared) - Upgraded Kitfox XL, 50 hp Rotax 503 (or options up to 100hp)

Series 5 (Safari, Vixen, Outback, Voyager) - Intended to use Continental, Lycoming, and Rotax 912 engines, all GA aircraft I believe

Series 5 Speedster - Same but with a shorter wingspan and higher cruise speed

Series 6 - 800lb GA, with a range of over 700 miles and cruising speed of over 120 mph (193 kmh)

Series 7 - Similar to the Series 6 with further refinements, power options include Rotax 914, P12S, Rotec

R2800, Jabiru 3300, and Continental and Lycoming engines.

Super Sport SLSA - based on the Series 7 but aimed at the U.S. LSA market, powered by the 100hp Rotax 912ULS engine.

Series 7 STI – Thanks to Scott James for letting me know about this one! I'm not sure they've got the acronym STI right (google it, but not in front of the kids), it reminds me of the Boeing 747 SUD (Stretched Upper Deck). Boeing changed the name when it was pointed out that SUD is a medical term for "Sudden Unexplained Death"!). The STI (or "STi") is a new "STOL Inspired" wing for the Series 7. Read all about it in the latest copy of Kitplanes magazine. S7 video: <u>https://youtu.be/NJ5f6aYoWww</u>





Flying for Air to Air Photography Brian Greenwood

Originally the preceding article was going to be about Club Alpis, but an opportunity to do some air-to-air work with Paul Godfrey in his good-looking Kitfox ZK-JFA changed the whole focus! This time my role was camera ship pilot, and my brother Mark took the excellent photos. Possibly why this lot are a bit sharper. Mark's also a Nikon user (I'm Canon) but neither of us are welded to the brands.

I had some radio problems in JOL prior to take off and the whole thing was nearly aborted. Luckily it was an easy fix (tweaking the Microphone sensitivity upgraded reception from a 3 to a 5) and we were off. Luckily Paul is a very patient man!

The flight went exactly as per our pre-flight discussion (a.k.a. safety briefing). My maximum speed with the cabin door open (and a Nikon flailing in the breeze) in JOL is 65 mph so Paul did well to format and positon JFA for the photos.

After some straight and level work, he banked hard to starboard while I turned gently to port. As I straightened up again he formated and we repeated the process. I did a full 360 while Paul headed back to the airfield, to give us some separation. That gentle 360 degree turn put me a good 3 miles behind Paul.

Some lessons learned

- JOL isn't a bad platform for A2A apart from the slow speed. Perhaps a camera hatch in the passenger door would alleviate this issue.
- The Pre-flight arrangements went well and we stuck to them. We established a minimum safe distance between aircraft on the ground and we would have moved further apart if the conditions required it.
- Having a very experienced pilot in the target aircraft makes a huge difference, since they do all the hard formation work.
- Piloting the camera ship is fun skills I concentrated on flying very straight and level, and radio my (gentle) turns before I made them.
- Since this was a first time, and there was no other requirement, all my turns were to port so that Paul was free to turn to starboard and keep me in sight.
- With the target aircraft's pilot busy watching the camera ship, my eyes were "watching outside" for two aircraft and three souls very important! I also had to keep a sense of where the target aircraft was, and Paul was excellent in communicating his intentions.
- I should have flicked off the chat channel and broadcast our location and intentions more than I did, although Paul was monitoring the airfield frequency.
- I did notice that I had climbed about 300' during the whole process, possibly I was subconsciously trying to climb away from the other aircraft. The photographer is very much a part of the safety system too. Next time I will have a pre-arranged code, if the photographer says "BREAK" I should turn left and climb, unfortunately the broadcast switch position in JOL is not reachable by the photographer when they're twisted around taking photos to the right and rear of the aircraft. There were no issues on this flight and Mark was very communicative on the position of the target aircraft when I couldn't see it.

All-in-all a fantastic learning experience and a fun flight! A massive "Thank You!" to both **Paul Godfrey** and **Mark Greenwood.**

Happy Birthday, ZK-RGB Brian Greenwood

On the 12th of August our second Tecnam, RGB, will celebrate one year of CRAC ownership. During this time she's flown almost 500 hours, and both Tecnams are very well utilised. We budgeted on around 350 hours as break even, from memory.

The decision to purchase the aircraft was quite controversial at the time, so hopefully this will allay any fears about it being a bad decision. RGB was financed out by selling JOR, club savings, and a loan of \$75,000. We've paid back \$40,000 in the first year – amazing.

Even more impressive is the older sister, RGA – delivered in May 2014, she's now accumulated around 1500 hours. Thanks to our Instructors for using these aircraft to train some good pilots, too.







A beautiful aircraft over a beautiful country – Paul Godfrey in Kitfox 4 ZK-JFA.

The attack and a second

© 2017 Mark Greenwood

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Celebrating Success! CRAC First Solos



Left, Club member *Carl Wall* soloed in Early August.

Right, CRAC member and **Air Training Corps** member **Karl Meyers** soloed on August 9th. Karl has worked very hard for his flying, doing lots of jobs around the club house and helping us keep the place tidy.

Hearty Congratulations to you both, and to your Instructors, for achieving this important goal.



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Introducing our newest ATO – Dave Mitchell Dave Mitchell

This story starts long ago when, as a 9-year-old lad, I discovered balsa wood and aero cement, that was it. Aviation for life in one form or another!

From school, I joined the RNZAF and trained as an Airframe Fitter and later combined Engines as well. A posting in 1961 saw me at Ohakea servicing Canberra Bombers and Vampire aircraft. I decided to have a crack at flying so joined the Wanganui Aero Club and started training on Cessna 150's - no radios in those days and we flew on light signals from the tower. Beryk Dalcom ran a Commercial Pilots School there and he and the club shared instructors. His second in charge was Tom Masters, a slim fellow who always wore a suit complete with waistcoat, all slightly crumpled. He was given the task of wrestling with me! Through our lessons, he puffed away on a cigarette held in one of those long plastic cigarette holders. Well, he solo'ed me in 4 1/2hrs and that included learning to spin the aircraft! I look back on it now and wonder how on earth we managed that. Eventually a posting to Wigram and family bought flying activities to a halt.

Now at Wigram and nearing the completion of an 8-year contract, I decided to see what "civvy street" offered and joined the Canterbury Aero Club as a tradesman under Laurie Councell who persuaded me to gain my LAME 'A' and 'c' licences. Work continued for 3 1/2 years, the time shared with Airwork NZ in the next hangar when they were 'short' servicing the Piper Pawnees. With time, I became aware that the Airforce life was really my calling so I applied to rejoin. This done and reinstated at Wigram I subsequently went on to complete 36 years of service at various Airforce Bases to finally retire as a Warrant Officer i/c of an aircraft maintenance hangar.



My cousin Keith was great friends with Bill Small for they had gone to school together. It was through this connection that I got to know Peter and Michael Small and it was at their insistence that in early 2000 I started flying again. This time it was in Microlights, as I could see great improvements and that this is where recreational flying in the future lay - a decision I have never regretted. Actually, my exposure to Microlights goes back well before this to 1981 when a meeting was called to form MAANZ to control these new flying machines that were making an appearance in this country from the USA. From memory, this was held at the Trentham Racecourse and I attended to witness this association being formed. A number of machines were trailered there and flown off the racecourse. I recall Wallis McNair allowing me to try his Robertson B1RD, my first micro flight.

And now this brings me to the present day and being part of the largest recreational aircraft club in NZ. We owe a great deal to the astute planning and hard work by the many individuals who have provided us this marvellous facility that we all now enjoy.

Safe flying

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Flight Instructor Seminar Scott James

August 8 and 9 was spent in Ashburton with around 30 other instructors from around the South Island. A good number of topics were covered, most of which were useful in the Part 149 world as well. The main focus was on instructional techniques etc. but of particular interest to us as Microlighters



Guest Speaker and attendee – Mr. McCaw

- ADS-B. Hopefully you know by now that this (ADS-B Out) will be required by the end of 2021 in order to go into Controlled Airspace (and unlikely to be any exemptions granted as you can currently do when you have no transponder). There is still evaluation and discussion on whether non-certified equipment will be acceptable. Part 149 is represented solely by AOPA (none of the Part 149 groups are in the NSS (<u>http://www.nss.govt.nz/</u>) working group).
- Additional scrutiny on Microlights. An unfortunate number of accidents in the past few months means it looks like there will be aa closer look at the Part 149 area. Those of you who attended the safety meeting at RT will know that the CAA has a graph showing the number of ML accidents with no accounting for the increase in either aircraft or flying hours. Unfortunately that is the data they are basing their decisions on.

Safety Management Systems. For those of you who read the CAA Vector magazine (it is online and I recommend all should read), you will already know that the CAA is focusing on Safety Management Systems (SMS). This is having to be formalised in many of the aviation related organisations. We are not included in that, but many of the principles make a lot of sense. On a clear, calm day, for a short flight, it is obvious that only a minimal risk assessment is required, but when you are heading off further, towards the limits of your range, and with marginal weather, then we should be at least considering looking at the hazards and risks. FRAT – Fight Risk Assessment Tools. Take a look at this page http://go.usa.gov/3Pu65 and the linked spreadsheet. Not that you have to fill this in for each and every flight – but a great example of things to consider (note: it is US based, so substitute WINGS for AvKiwi!)

As usual, much discussion and lies told over some beers, and good communications with other Part 149 and 61 instructors, as well as the CAA personnel.

Scott James



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When was the last time you practised a glide approach?

Committee Notes August 2017

- Carb heaters to be purchased and installed on RGA and RGB as soon as possible
- Suitable Oil Temp gauge for RGA unavailable, so a light will be fitted
- Hours flown this month: RGA 40.5, RGB 37.5
- Bal \$25K (not incl engine and fuel fund), expenses next month \$7K GST and \$4K Carb Heaters.
- TT RGA approx. 1500, RGB 470
- Two life jackets to be purchased for use in **CLUB OWNED AIRCRAFT** only.
- Don't be afraid to submit a 005 report, or use an airport incident report for non-urgent matters (such as misplaced signage)
- Club history document in progress Graeme Main and Mike Sheffield
- Scott attended the Instructors Meeting in Ashburton. Microlights to receive more attention from the CAA; ADSB transponder project still a work in process.
- Airfield Advisory group report may consider chaining off sections of the airfield to allow more controlled access.
- Duncan Fraser to attend Safety Officers course in Dunedin in September
- ATC and Stick and Rudder group sometimes clash for club house use on Thursdays.
 President to talk to both groups to ensure better co-ordination.



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Registration for Friday & Saturday night activities essential* For more information contact Ross: Email: <u>rangitata.airfield1@gmail.com</u> Phone: 027 869 7205

*Registration not required for attendance at fly-in

A "Thank You" Note from SOFIA

Thank You All for your hospitality. You have a wonderful Aerodrome.

Again, many thanks for hosting SOFIA. The genuine support from everyone we have met in your beautiful country is felt by us all.

Regards,

Kevin Hanna NASA/SOFIA

95 MoGas Installation On The Airfield: Update Brian Greenwood

The South Fuels installation is now complete and certified. It's waiting on a flush and some paperwork about the supply of fuel to the airfield, we do not have an exact time frame for this.

As this is a learning experience for the club, the committee has decided to trial the initial use on the Club Aircraft and those who sponsored the installation by pre-paying. This is to give us a chance to learn how it works and ensure that our charging processes are correct. Please allow us a little time for this and then we can open it up to club members.

Note that your CRAC account must be in credit before you can use this facility.

Thank you to Buzz for his persistence and hard work on this one!

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Interested in joining us?

E-mail <u>secretary@crac.co.nz</u> or use the online application form.

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

Upcoming Events

10th August – Flying Enthusiasts Meetup, Vespa Bar, Christchurch – come along and socialize
19th August - club run and picnic to Culverden Strip

7th September - Movie night - pizza and beers
8th - 10th September - 100 Year Anniversary
Celebrations at Rangitata Island (see advert)
9th - 10th September Bridge Pa Taildraggers
weekend

24th September – Central Otago Wings and Wheels

20th October - Poker Run and BBQ lunch. Prizes. **23rd November** - Tech night - GPS Navigation by Glenn Martin.

15th December - Club BBQ and kids fun day.

Keep your eye out for weekly club e-mails, join the **CRAC Drop Of The Hat** WhatsApp group for informal group fly-aways. Join **CRAC Revolutionary** for general chat and good humour.

<u>Contributions and Attributions</u> Mark Greenwood, Dave Mitchell, Scott James, Hamish Pulley. 'RecWings' logo by Eric Lim, criemil@yahoo.com

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.

New Members

Welcome aboard to:

Richard Gray Rodney Dodd

Welcome to our new Friends!

Congratulations

Dave Mitchell, ATO Phillip Spellman, Adv Local Nick Ward, Adv National Anna Wruck, Adv National

Next Newsletter

Contributions requested, publishing deadline 13th September 2017 ("ish").

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

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