

REC WINGS

THE MAGAZINE OF THE CANTERBURY RECREATIONAL AIRCRAFT CLUB



CHRISTMAS SPECIAL 2019

Why a Christmas Edition? Because... aeroplanes, that's why! Besides, if it was good enough for the Thunderbirds to have an annual, then it's good enough for us.

Originally this issue was going to be an excuse for me to widen the subject matter further, however there's enough club and other aviation-related content to fill an issue (thank you to those who contributed!).

I hope that you enjoy your holiday read. And, above all, stay safe.

Remember to always check the weather, check your aircraft, your fuel, your route, NOTAMS, and yourself. If there is a risk, eliminate it before getting in to the air. Your safety directly affects others, your loved ones and colleagues, your fellow pilots, and our continued freedom to fly in this beautiful country.

Make sure you have a great holiday!

Brian Greenwood
Editor





RECWINGS

is produced by a keen group of individuals within the **Canterbury Recreational Aircraft Club**.

To subscribe to the e-mailed edition please contact editor@crac.co.nz.

For back issues, head to www.crac.co.nz/magazines

Contributions for the next edition are due by **January 22nd, 2020..** We invite contributions from all, with editorial discretion being final.

Brian Greenwood
editor@crac.co.nz

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Cover, Better than a beach umbrella in summer, Airborne Trike on finals!

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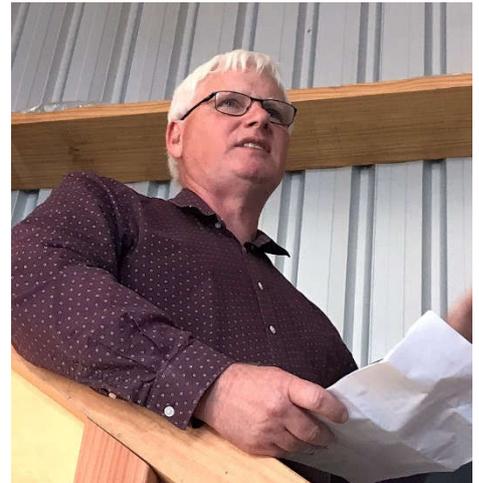
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GOODBYE TO THE TEENAGE YEARS

MERRY CHRISTMAS FROM GLENN

Well, 2019 is ending - the teens are over and we are moving into the 20's.

I feel that the club is also moving into a new era. The early Microlight years were our childhood, complete with bruised knees, and a great appreciation of gravity. First Generation Microlights allowed our dream to become reality and many great experiences were had. Generation two, our venerable Rans's, let us expand and fly with the big guys anywhere, albeit slower and with more noise in the cockpit. The Generation three RG's with iPads, heaters, and enormous range and comfort have led us into adulthood, and there is almost no difference in what we fly to those that are chasing an epaulet... except we have more fun and have more modern kit.



2019 has been a great year again for CRAC and is, of course, only possible due to all the efforts of many people.

Firstly, to those that have spent decades building the club up from nothing to the best Aeroclub in NZ, GA or Microlight, thank you - we all appreciate it. We are so well respected now that we have a stream of Aussies and Americans coming to us to do their flying. When someone from NASA's SOFIA and an Aussie choose US then we must be doing something right.

Secondly the most important thing to say about any Aeroclub... we are all still here... no Accidents and only a few minor incidents. This is down to everyone. Keep putting your personal safety first, please.

From our Part 149 Partners RAANZ and SAC who continue to work with CAA for us and pulled of one of the most significant wins this year with the "On condition" program.

Our dedicated and hardworking Instructors who teach us the right way to have fun but keep safe.

Thanks to all our Students for putting up with the Instructors being so insistent on you getting it right. Thanks to all our members for being safe all year and giving way to our RG's in the circuit.

We have done over 1000 hours again this year despite the weather. Our members must have done thousands more! Planes have been all over the Country cluttering the radio and proudly telling everyone who asks "I fly out of Rangiora", this usually elicits a "You are so lucky down there" but it is not good luck it is good attitude.

RGC arrived, and now finally we have a plane available for overnighting, I know this has been a goal for many years. With RGA at near 3000 hr, RGB at near 2000 hr and RGC getting started we now have a fleet that can mature and be replaced as needed.

Also with nearly 5000 hr on our Tecnams we now can say with certainty that they are the right aircraft for us as a trainer.



I personally would like to thank the Committee... as you can expect we never agree straight away on much, but I know everyone on the committee is 100% focused on keeping the club running, all of us flying as often as we can and keeping hassle and costs to a minimum. There are no agendas on the committee; just passion to do the right thing by all of you.

Without good officers we would have strife, Scott knows where the money is and stops us spending it in stupid ways, Iain has an uncanny ability to listen to 10 conversations at once and record a coherent set of minutes. Nick has organised some of the best events in memory, but I think the flight to Cairns is a bit OTT... he and his family will be missed. Stew as the OPS manager and CFI has kept the planes working along with Chris and as the record shows must be doing something right as we have had zero breakages! We have had Jerry looking after the clubrooms and hangers, Victor doing the IT, Gary new in the Safety role, and Peter keeping the CAA documents up to date... all jobs you would only notice if something went wrong, so they are doing a great job.

Vanessa would not want to spend another evening with me so the tuck Shop job is ex committee and the Tuck shop is the most profitable part of the club. My health has suffered but I did not need to eat All the pies I suppose.

Brian as always needs a special mention, few of us know how many hours he puts into the Magazine and it is the best in the country. He should really have his own magazine but we need to keep him here so please contribute a photo and a small article, I am sure you are all getting tired of my ones!

Finally, this year we organised our own "Open Day". Padi stepped up and with a group of about 10 we set up a new thing for many of us. In the end the day was far better than many of us believed possible. We wanted to make a good impression with the public, the Council and our neighbours all with a view of helping us cement out place here for the future. Doug, who has been here since before the Wright brothers flew, said it was "the best day the club has ever had". So, thanks for everyone who helped turned up and supported the day. Perhaps that was our coming of age party and we are now 21?

Merry Christmas to everyone, I hope you all have some great flying, relaxing and get to see the great NZ countryside from a few hundred feet.

Glenn Martin
President

LOW LEVEL CIRCUITS AT NZRT

SCOTT JAMES

Some time ago it was agreed with the local Helicopter operators that they would join the circuit at low level which keeps them out of the 1200ft circuit. This has been generally working well. It does mean that they rely on us flying standard circuits as they don't have the luxury of an overhead join.

Low level circuits are not standard and should not be carried out unless for specific training purposes or low ceilings. If you are required to do a low level circuit, please make additional radio calls (e.g. upwind, early downwind) as often helicopters lift from areas close to the airfield and may not have a long period of time to hear radio calls.

Likewise, please don't turn cross wind until after the end of the runway, and at a minimum of 700 ft AGL.

Flying standard circuits makes it safer for everyone, as being where people expect you to be means spotting you is easier. Remember - visual is our primary situational awareness tool. Radio is great, but even in the MBZ there can be people on the wrong frequency, volumes set wrong, radios not working - don't rely on just the radio.



CRAC'S 2019 IN REVIEW

BRIAN GREENWOOD

2019 opened with a blast – the club fly-in to **Stephen and Phoebe Field's** farm strip on January 26th. Calling it a farm strip is, perhaps, under-valuing it. More of a farm airfield!

A good number of club members and aircraft attended, and a good time was had by all.

Several club members had entered in the Healthy Bastards' Bush Pilot Competition, carrying on a tradition that (I believe) Deane Philip started quite a few years ago.



They all achieved extremely good results which **Vanessa Martin** documented for the Jan-Feb edition of RecWings.

It may not be a club event, but we can all celebrate the success of our friends, right? (Says your editor, basking in the pale glow of reflected glory...)



March was a busy month, with negotiations continuing with the Waimakariri District Council over their proposed massive increases to airfield charges, the club suggested a Rangiora Airfield Users Group, to lobby for the interests of Airfield Users. The existing Rangiora Airfield Advisory Group is mostly composed of commercial interests and (primarily) people who don't use the airfield! In the event, the negotiations went vaguely OK and the group wasn't formalised.

March also saw the club holding a Precision Landing Competition at Rangiora. Precision Landings are an easier event



than (for example) short landings, however they are still a tricky skill, as many found out.

This was extremely popular, and the competitors were spilt into many groups to reduce the circuit traffic.

First place equal went to Jerry Philip in his Aeroprakt and Hamish Crowe in his Zenith 701.

A couple of days later, Dave Mitchell ran the first of a series of technical training evenings at the club house, which were well received and appreciated.



April saw the CRAC AGM run which was completely stress free, and saw a smaller committee elected. Also, in April was the fabulous Yealands Classic Fighters Omaka air show. We can claim some club connection through Gert van Kruiningen displaying his fantastic Bleriot XI to the world. If you haven't seen this beautiful work-of-art flying yet, you're missing a treat! (*Below*)





Making their welcome return to South Island skies for CFO 2019 were the RAAF in their F/A-18C Hornets.

The three aircraft were based at RNZAF Woodburn, which is so close to Omaka that you can see the aircraft parked!

Two of the multi-role fighters had special display markings to celebrate the 75th Anniversary, and these were used as the individual display ship.

The display pilot, W/C Jason "Easty" Easthope, was born on Rotorua, and transferred to the RAAF after the disbandment of the RNZAF Air Combat



Force by Helen Clark in 2001. As I type this, our friends at Warbirds over Wanaka have just announced a four-ship display by the RAAF F/A-18's will be attending Warbirds over Wanaka 2020.

Back to Classic Fighters Omaka 2019, we were privileged to see the FW-190 rebuilt and back in the air after its landing accident, plus all three of New Zealand's airworthy Spitfires in the air at the same time.



July saw Glenn Martin make a proposal for a trip to the Chatham Islands, which is still being considered and prepared for. Several people have expressed an interest so watch this space!

In mid-August our third Tecnam, ZK-RGC arrived. This beautiful aircraft gives us more flexibility for members to hire for multiple day flights, without affecting the day-today training operations that's the bread and butter of the club.

Also in August was the very popular club fly-in to Culverden. A good couple of dozen aircraft attended, there was food provided by the Waiiau Small Bore Rifle Club.



September saw a quiet month for the club, however some of our members participated in the increasingly-popular AOPA flying day, which departs from Charlie Draper's field near Culverden and visits as many high-country strips as humanly possible in a single day.

For the second year in a row the weather was absolutely perfect for flying in the mountains, and Paul and his Kitfox were perfect Alpine guides.

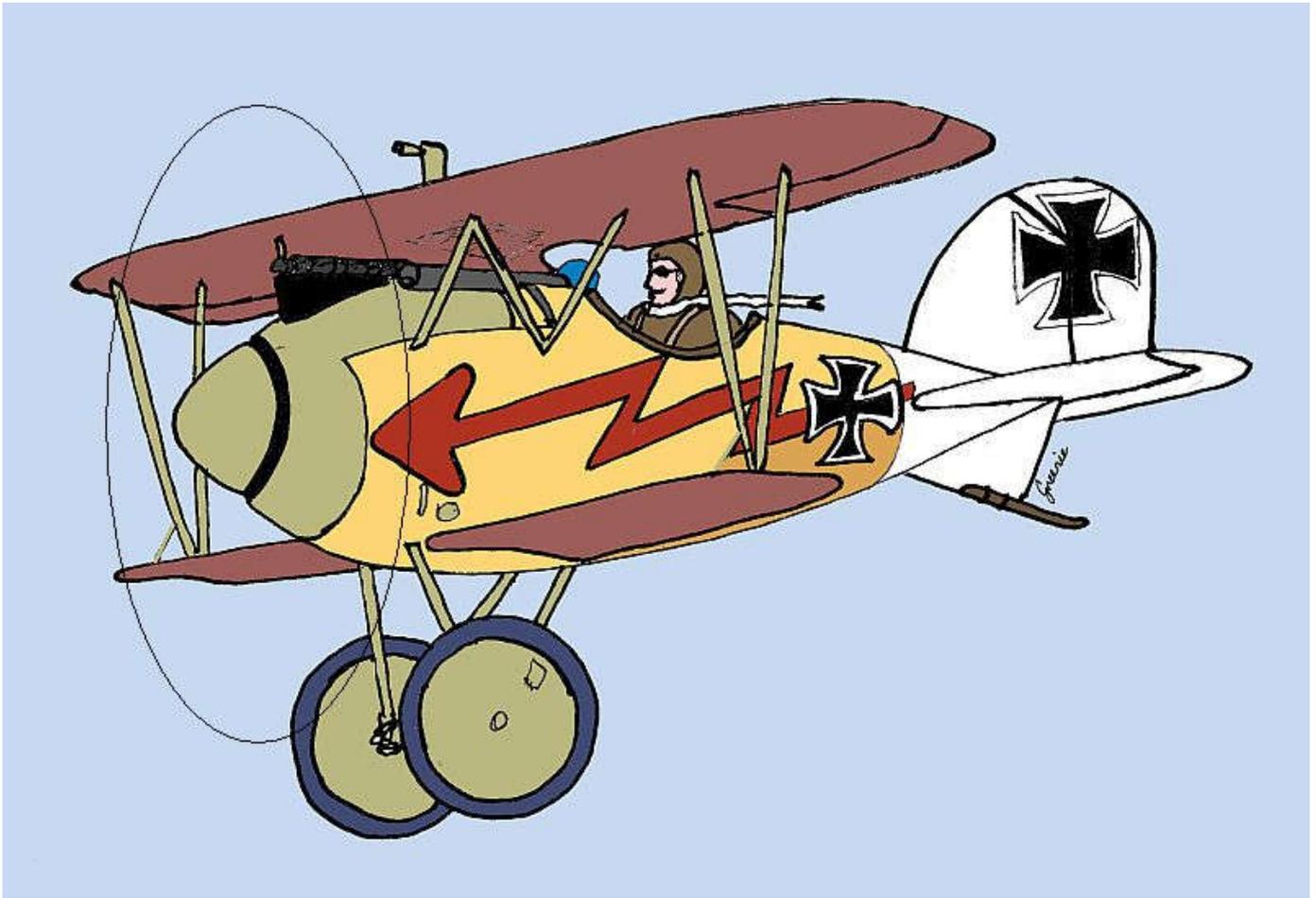
The second-to-last official CRAC event for the year was the most successful public event we have ever run – the Club Open Day. We estimate that between two and three thousand people attended, and the feedback has been universally positive. At this stage we don't know if we have gained any more members than the normal end-of-year rush, but the aim of the exercise was promoting the club, airfield, and safe flying in general.

The final event was the Christmas party, which is reported on separately. Needless to say, a good time was had by all.

Thanks to a special group of people, the Canterbury Recreational Aircraft Club. The flying and the aircraft are great, but it's the personalities, skills, and warmth of the members that makes this a very special club. We're not only the largest Microlight and Light Sports club in New Zealand, we must be a good candidate for being the best.

Merry Christmas, and Happy New Year to you all!

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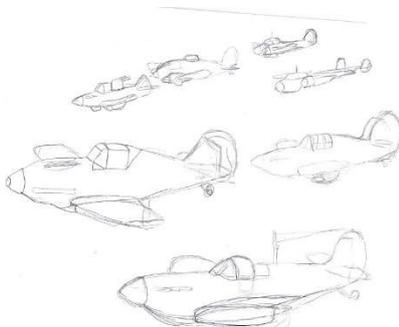
THE STORY BEHIND THE CARTOONS

BRIAN GREENWOOD

So far no one has had the courage to say "what's with the cartoon?", but I **have** had a very polite question about who drew them. Modesty precludes attribution, of course!

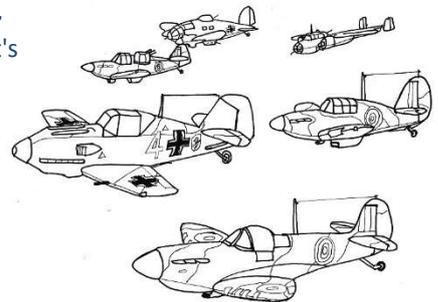
Actually, there's not much to be modest about, generally they're done in a rush on the last night before publication, and most of them aren't that great. Occasionally one comes out better than I had hoped. The whole idea is to end the magazine on a whimsical note. After all, Aviation requires levity.

There are plenty of really good cartoonists out there, look up "Plane Ritchie" on facebook if you're interested.



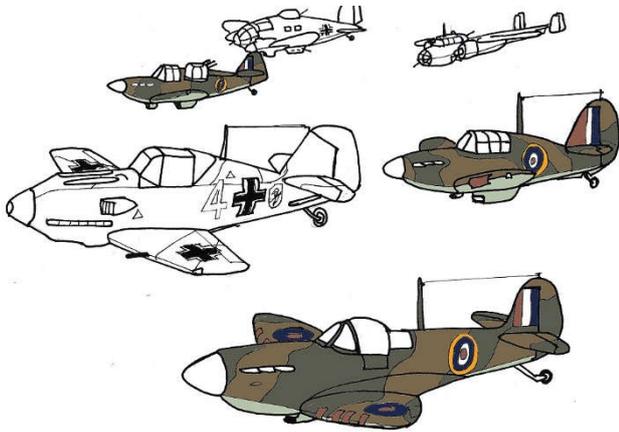
The process starts with a pencil sketch, in fact several until I get something that's not too stomach-churning. This often involves a LOT of scribbling (*left*).

When I'm happy with the result (or, more likely, have run out of time) the definitive shapes get re-drawn with a 0.2 Artline pen, with a few finer details worked in with a 0.1 – if I can find it.



The pencil lines are removed using a soft eraser and then this sheet gets scanned as a monochrome file to my PC. The lack of colour in the file helps to clean up some of the artefacts from the pencil. This, then, is converted to a full colour file and coloured in via Irfanview's Paint option.

Camouflage colour RGB values are available on the net, and I usually try to read the colour off a photograph of a local aircraft.

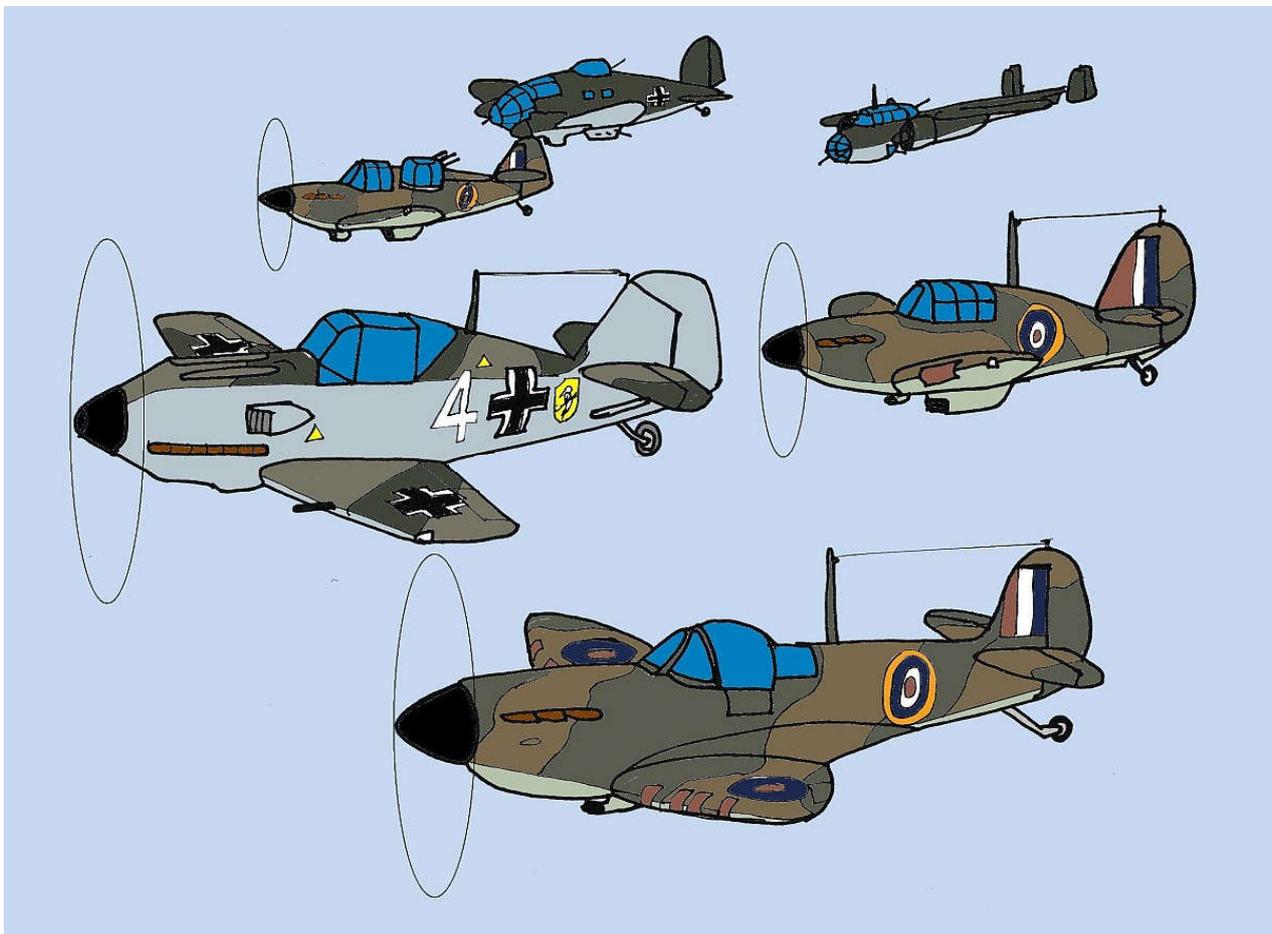


At this stage it's generally a relaxing paint-by-numbers game.

Once the aircraft are done, the sky is coloured the same blue as the text box in the cartoon area on the last page. The prop arcs are drawn, the image is re-sized, and presto.

A childish indulgence, perhaps, but one designed to give a humorous and colourful appearance to the last page.

Real graphic artists and cartoonists would probably curl their toes at this process but, so far, none of them have offered to do it for us. I was pleased recently to find out that one of the artists I hold in high regard follows a similar technique. Maybe this old hack's not so out of touch!



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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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YOUNG CRAC MEMBER WINS PRIME MINISTER'S AWARD

BUZZ HARVEY

CRAC student pilot and local ATC cadet **Tia Warwick** has been awarded a **Prime Minister's Vocational Excellence Award**.

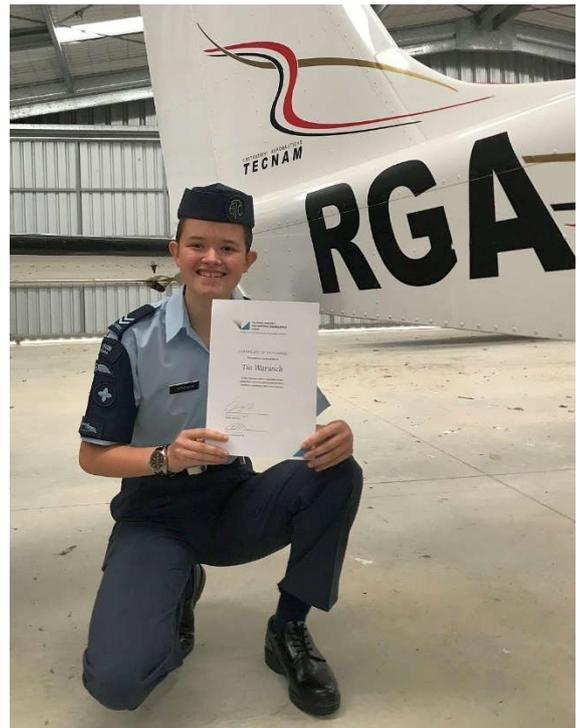
This award is open to students from all schools around New Zealand. Student nominees have to be in year 12 or 13, and be a participant in the ServiceIQ Gateway Training programme. ServiceIQ offers a wide range of great Gateway training that helps students gain skills, experience, and kick-start a career in the exciting services industry when they leave school. They also gain unit standards and make professional contacts that can help open doors to a wide range of fantastic jobs and careers in the growing aviation, tourism, hospitality and retail service.

Tia enrolled in the Aviation Gateway Training programme, described as follows: Aviation is an exciting career choice with lots of career possibilities where students can train on the job, earning as they learn. Great aviation roles for men and women include: pilot, aeronautical engineer, flight attendant, air traffic controller, check-in agent, cargo handling supervisor, airport operations staff and much more.

Every year, schools can nominate their students for the award of the Prime Minister's Vocational Excellence Award. Each school can have just one winner (if they meet the criteria), which is a certificate from the Prime Minister, and a \$2000 cash prize for the student to help them participate in courses that will help them achieve their desired career option. This year, Tia won this award through Oxford Area School, where she attends as a year 13 student.

Tia was also awarded the CRAC ATC Flying Scholarship in 2017; and a Service IQ scholarship of \$2000 in 2018, the latter giving her \$2000 worth of flying with the Canterbury Aero Club. Tia intends to spend the grant that comes with the Prime Minister's Award furthering her flying training with us at CRAC, under the expert tutelage of Senior Instructor Doug Anderson.

Our congratulations go to Tia on her achievements. She is an excellent ambassador for her school, ATC Squadron and our club. Best wishes Tia, from all club members for your future in aviation.



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Dave McPherson departs NZRT after the recent open day in his Karatoo ZK-KTP
© 2019 Brian Greenwood

The following section is a commercial offer to CRAC members from Avionics Canterbury Wide. They are proposing a bulk order of ADS-B equipment to gain a discount. The images are provided by the editor as guidance; don't blame Avionics Canterbury Wide if they're wrong! Note that the prices are in US dollars, vs the subsidy in NZ dollars.

ADS-B TRANSPONDER CLUB OFFER

DAVID HARNETT, AVIONICS CANTERBURY WIDE

You need to decide what you want out of your ADSB System. Do you just want to comply with the rules, or do you want a smart system that will show you other ADSB traffic? Most people will just want to comply with the rule and go with ADSB out - the cheapest option. In which case the Garmin GTX335 with internal GPS and GAE12 altitude encoder module is all that is required.

The GAE12 is not required if you already own an Encoder from your previous Txpdr installation, but it is recommended as part of this kit. It saves a lot of installation and setup time and makes future encoder adjustments a simple task.



Installation takes between 2 to 5 days, and depends a lot on what is required in the STC for the aircraft WRT mounting of the unit and the GPS antennas etc.

Setup, configuration and paperwork take about a day.

If you are interested in ADSB In and Out then there is the following. The Garmin GNX375 is a fully compliant IFR GPS Navigator with an ADSB In and Out transponder built in. It has a traffic page, an IFR navigation page and terrain page. It also gives audible warnings about aircraft that are potential hazards. Touchscreen and buttons.

The Garmin GTX345 is an ADSB In and Out transponder. It requires an external display to show the ADSB targets around you. It can bluetooth the information to an IPAD where the moving map (Oz Runways or similar) will display the ADSB Targets. It also gives audible warnings about aircraft that are potential hazards.



The LynxL3 is an ADSB In and Out transponder with a touchscreen display. It displays on the Moving Map or Terrain Map the ADSB targets around you. Cannot be used as a GPS navigator. It also gives audible warnings about aircraft that are potential hazards. This system is currently on special.



If you wish to just display close range ADSB Targets on an IPAD, you can go with an ADSB-Out system (GTX335) and a cheaper Dash Mounted ADSB-In receiver that bluetooths the received Info to an IPAD (e.g. on Oz Runways maps). Beware these give no warnings of potential airborne hazards.

If you wish to discuss any of these options, please give me a call. Once you make a decision, I will firm up the prices (trim them a bit) and get back to you with a quote.

Please reply or give me a call if you wish to confirm and order. We will then try and fit you at some stage to install the equipment.

Interested CRAC members please contact David Harnett at Avionics Canterbury Wide and we will make a list of people and product that is required. Once we have a minimum order of 10 units then we will do the following special for

GTX335 (with integrated WAAS GPS) + GAE encoder unit, normal retail is USD 3200.00, we will do it for USD 2800.00.

If there is over 10 units we will approach Garmin and if a further discount is given we will pass this on. However, there will be the deadline of the end of January for this offer.

Also, we will be willing to work with your engineers (Chris Anderson, Tony Hansen, Stu Bufton and Wayne Lindebaum) to manage the installations.

We have been told that part of the process to claim back the Grant from the Government will be to prove that it has been installed by a LAME. But as we all know it will be impossible for us to manage all these installations without help. So I am proposing that your engineers manage the mechanical part of the installation, and we do the Avionics, configuration and testing, plus the required Admin / Paperwork.

The Grant from the Government for the GTX335 will be NZ\$2500.00 + GST

The process for claiming this subsidy has not come out yet, but we have been told it will comprise of 3 parts:

1. Prove the unit is Certified.
2. Prove the installation has been installed IAW Tech Data by a LAME.
3. Prove that it works to the required standard.

David Harnett, Avionics Canterbury Wide



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If you're interested in this offer, please contact David before the end of January 2020 at avionicscanterbury@gmail.com

Please be clear that he will require firm commitments to order to make the deal work.

CLUB HOUSEKEEPING

The council has expressed concern about the number of vehicles using the airfield, remember that vehicles are ONLY allowed on the airfield when delivering fuel or heavy equipment. It has been noted that some people are driving from one end to the commercial operators at the other on the airfield instead of using the road, this must cease. Note that the airfield access gates and booms MUST be shut for public safety.

Club security is also an issue, please make sure that you close the hangar and club house doors when you leave. If you open them, you're responsible for guarding the premises until they're shut. We've already had one burglary, the insurance company will not cover us if we've left the place wide open!

On a lighter note, the current and past few committees have been working towards a club history. We have the beginnings of a document which charts most of the major highlights of the Canterbury Microlight Club and the Canterbury Recreational Aircraft Club, but we're keen to get some good anecdotes as well – especially from the early days.

Please feel free to send your stories to editor@crac.co.nz, and let me know if you're OK to publish them in RecWings too.

CRAC CHRISTMAS PARTY 2019

CRAC hosted the Christmas Party on Saturday 14th in Doug's Hangar. The catering was by Miss Lilly's catering and was very well received. Well, it was by me, anyway, I definitely over-ate!

The President expressed gratitude to the hard workers over the last year, and acknowledged the good work done in past years to build the club up to the success it is today. He thanked the current committee and non-committee officers for their good work.

The one single person who wasn't thanked or appreciated was the president himself, so I would like to pass on our appreciation and thanks to **Glenn Martin** for his very hard work for our club. A lot of the jobs are not always seen by the club members, but I can see that it can be very stressful at times.

The after-dinner speaker was raconteur and comedian **Peter Rowley** who regaled us with some of his family's fascinating aviation history, of course it was all in "the best possible taste" (to quote the late, great, Kenny Everett). Thank you, Peter, for a very entertaining evening, but you skipped out before the dessert! I'm still having misty-eyed reminisces of that Christmas pudding...

A special note of appreciation for the hard workers who set the hangar up and organised the Christmas party, I know Doug and Lizzie were working from early on Saturday to get things ready, and into Sunday afternoon to clean it all up – and to those un-named who helped them. (Including you, Ray!)



Photo 2 above, President **Glenn Martin** demonstrates CRAC's attitude to those who flaunt the principles of aviation safety

Photo 3 above, first lady **Vanessa Martin** presents some good humour in appreciation of Nick Hitchins' great work as Club Captain and to wish them all the best in their next adventure.



Photo 4 above, there's always one comedian, in this instance we were lucky to have a real one – aviation-mad Comedian **Peter Rowley** entertains between courses. I'm sure he had a great evening, I personally witnessed him pulling an absolute cracker.

Left centre, organising genius **Doug Anderson**

Thanks to **Wayne Wilson** for the additional photos





IT'S THE PITTS, MAN!

BRIAN GREENWOOD

When I was young (and dinosaurs roamed the earth) there was a saying "It's the pits, man!", meaning that the situation wasn't cool. Also in antediluvian times I had an inspirational poster on my wall of a small, red, aerobatic aeroplane climbing almost vertically. I knew then that "Pitts", when spelt with with two "T's" was **very cool**.

That aircraft had a kiwi painted in the diamond on the nose (if I recall correctly), the poster was produced as part of a fund-raiser to get a young Kiwi woman to the World Aerobatic Championships in Kiev, then part of the USSR. Pam Collings got to Kiev, although it was a tricky trip and she arrived late for the event, apparently having met some MiGs on the way!

The point of this rambling diatribe is that I was on my way home from doing some work on JOL one evening and saw a familiar face on the field, **Adam Butcher** who flew the DH Dominie for the air-to-air photo shoot at Warbirds Over Wanaka in 2018. He and a group of others were over-nighting on their way to Akrofest 2019 at Omaka recently. It was great to bump into **Andrew Love** as well, who has purchased the former Pam Collins' Pitts Special, ZK-PUG.

This aircraft was recently restored to better-than-factory condition and looks superb. The conversation was full of phrases like "Aileron spades" and "sealing gaps", it was a pleasure to catch up with these guys again. Also, a shout-out to CRAC's **Iain McPhail** who flies the aerobatic Rans S10, ZK-SIO. Ian used a CAC Alpha and competed successfully in the competition.



SAFETY AROUND FOREST FIELD AERODROME

PAM COLLINS

Forest Field aerodrome is situated 10 nm northwest of Christchurch airport. Since its establishment in 1989 by Pam and Ces Collings, it has been made available for use by local flight training organisations and others as a useful airfield to visit with standard circuit altitudes and procedures.

Over the years traffic in the area has increased and there have been airspace changes which have altered traffic flow patterns.

Forest Field is more complex than the usual small private airfield. There are three runways, the longest of which is 1000 metres. There are a number of residences on the airfield and over 10 aircraft are based here. At an airfield elevation of 400 feet, the circuit traffic is at 1400 feet and joining altitude is 1900 feet. With six potential circuit patterns there can be aircraft in the circuit anywhere within the 2 nm radius aerodrome traffic 'zone'. To the west of the field the lower limit of controlled airspace is 2500 feet and to the east it is 1500 feet. There is a 'box' surrounding the airfield where the lower limit of controlled airspace is 2000 feet, so a normal overhead rejoin is still possible.

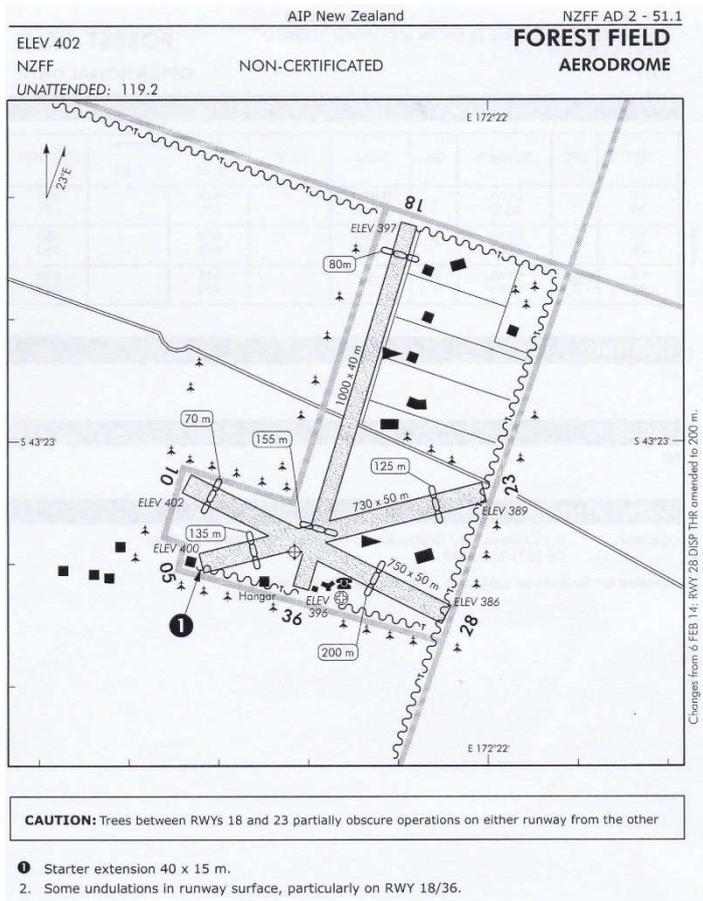
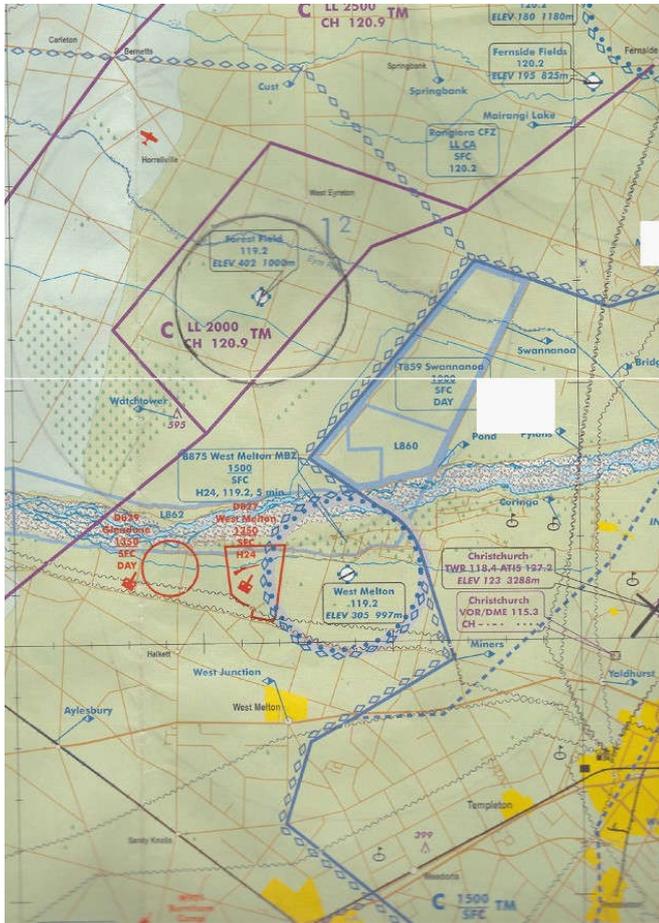
There is a considerable amount of training aircraft travelling to and from Christchurch airport and training areas to the west. There is also traffic transiting north/south.

Good airmanship would suggest that pilots should avoid passing through the Forest Field aerodrome traffic area. But there seems to be increasing instances of pilots transiting through at 1500 feet, perhaps using Forest Field as a waypoint. With a slim margin of 100 feet from circuit altitude, there is a very real possibility of conflict. (And there has been). This is compounded by the fact that aircraft approaching from Christchurch or from the north change to the Forest Field frequency (Canterbury CFZ) very close to the airfield so there is little time for making calls or hearing calls from circuit traffic before being in the airfield area. And there could be nordo traffic (yes, they do still exist) so a radio call does not ensure safety – a good lookout and thinking about what would be good practice is essential. Why would a pilot think that passing through a traffic circuit just above circuit altitude would be a good idea or a safe practice? "But I made a radio call" does not absolve you (or prevent a collision). Possibly they think that there won't be any traffic – often Forest Field is quiet, other times not so -- you don't know if and when there will be activity, especially the possibility of nordo traffic. So please just avoid the area – it isn't hard to do.

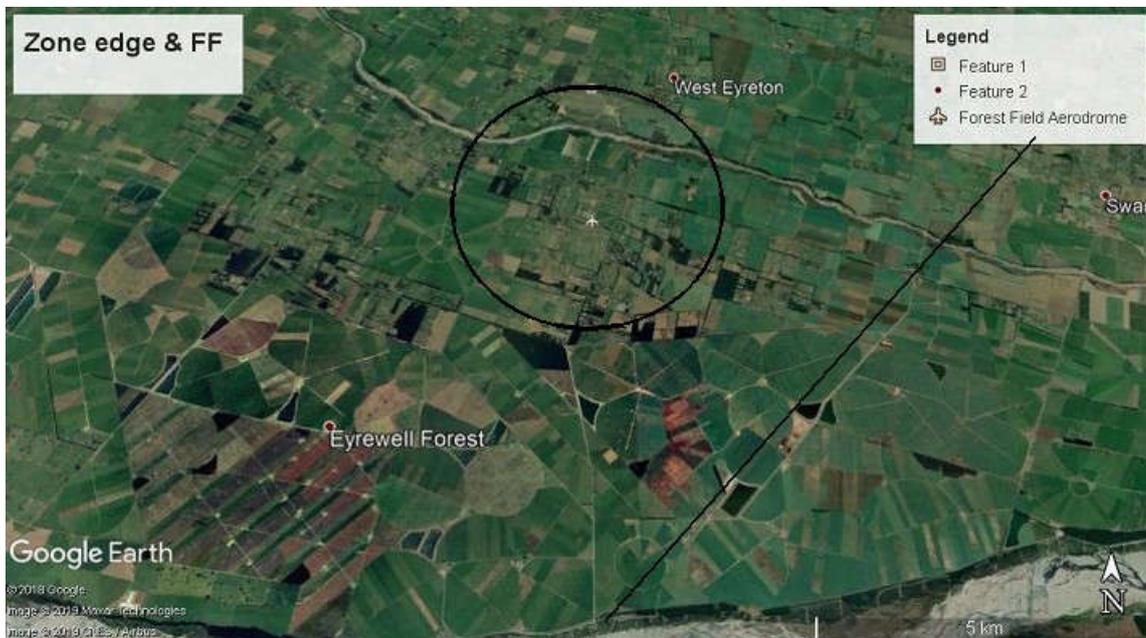
This propensity to transit at 1500 feet may be because of 1500 foot airspace limits further south but if you must pass overhead Forest Field then do so at 2000 feet to be above circuit and joining altitudes and there is plenty of time to climb/descend 500 feet as required.

It is possible to transit east of Forest Field at 1500 feet but it is important to realise the 2nm radius circuit traffic area protrudes into this airspace across the straight edge of the 2000 foot box. So transit close to the edge of the control zone. (Caution the danger areas west of West Melton). The better option for north/south traffic is to pass to the west of the airfield. When coming from Rangiora it is a good idea to initially track towards Cust – this will put you into Canterbury CFZ sooner and be able to comfortably pass to the west of Forest Field, and with more altitude to play with. (Only an extra 2 or 3 nm – but much safer and less stressful). If tracking to join Forest Field consider making an early change to 119.2 for better situational awareness.

For the east/west traffic when passing to the north of the field, stay at least one mile north of the Eyre River and passing to the south stay beyond the lifestyle blocks into the dairy area towards Watchtower.



Left, stay west of the irrigation circle and road to remain clear



Stay just west of the ponds (see line above).

In the photo, *right*, looking south the ponds are in the distance on left. Stay well east of the dairy complex in the foreground (on south bank of the Eyre River).



DON'T LET THEM SLIP

BRIAN GREENWOOD

Christmas and New Year are traditionally times to relax for most Kiwi's. Whether it's fishing in the Sounds, hiking the Hollyford, or painting the back porch (actually, it's a Jaaaaag), a fair portion of us take the time for some recreation and rest, it's a good slow down period.

It's also a time when we're more likely to relax our standards and cut corners. I worked in the Electricity Industry for 30 years and know there was always a call for **increased** vigilance through this period. This is not only because people are relaxing or in a chilled state of mind, but they're also more likely to be hurrying and working alone. The same applies to our flying, we need to exercise the same (or better) caution that we do through the rest of the year.

Don't skip those fuel checks because "it's always clean", or the preflight checks on your aircraft. Read the weather report twice because you missed the FC, FU, HZ, or GR (Funnel Clouds, Smoke, Haze, or Hail!). Double-check that lock-wire, triple-check for foreign objects rolling around on the floor and maintain vigilance while flying.

This is a time to be with loved ones and friends, please ensure that you're around for them!

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LONE STAR MUSEUM

TIM WARD

Recently I managed to visit the Lone Star Flight Museum, located south of Houston, Texas, which exhibits more than 24 historically significant aircraft, and many artefacts related to the history of flight.

The museum's collection is rare because most of the aircraft are flyable. Located at Ellington Airport, the museum, formerly located in Galveston, moved to Houston to avoid a repeat of the devastation suffered during Hurricane Ike.

The museum began as a private collection of historic aircraft in 1985. By 1990, that collection had grown enough that its owner decided to place them on public display. The Lone Star Flight Museum, a non-profit organization funded entirely through private donations, was formed for that purpose. Worth a visit if you are visiting Houston to see NASA as well.



Above, from the placard information:

The Douglas SBD Dauntless was the principle U.S. Navy dive-bomber at the start of World War II. It was strong and durable, able to withstand anti-aircraft fire from the enemy and the 4+ g pull-up after releasing its bombs at the end of the dive. A total of 5,936 SBD/A-24 aircraft were manufactured.

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Right, from the placard:

The Republic P-47 Thunderbolt was the brainchild of Republic Aircraft's chief designer, Alexander Kartveli. It was powered by a 2,000 hp P&W R-2800 Double Wasp radial mated to a turbocharger. With an armament of eight .50-inch machine guns, a maximum speed of well over 400 mph and a ceiling of 40,000 feet, the Thunderbolt was an impressive weapon.



Above, left: Piper L-4 Grasshopper, the military version of the J-3 Cub.

Above, centre: Stinson L-5 Sentinel, a re-engineered version of the Stinson 105 Voyager.

Above, right: everybody's favourite, an original Piper J-3 Cub.



Left: Anderson Greenwood AG-14, with **(Right)** B-17 lurking in the background!



This photo and heading photo, Messerschmitt Me-262 reproduction, containing some original parts and powered by two GE CJ0610 engines instead of the original Junkers Jumo engines. Beautiful!

F-18'S AND POLIKARPOV I-16 HEAD TO WARBIRDS OVER WANAKA 2020

Ten years after they debuted at Warbirds Over Wanaka, the Royal Australian Air Force (RAAF) F/A-18 Hornet jet fighters are returning for Easter 2020.

Back in 2010 the jets were the undoubted stars of the show and they're sure to wow the crowd once again. The RAAF is planning to bring five Hornets to NZ providing a 4-ship for the Wanaka Airshow. The Hornets are part of 77 Squadron and Commanding Officer Jason 'Easty' Easthope will be the leading the display.

Wing Commander Easthope was born in Rotorua and flew with the Royal New Zealand Air Force (RNZAF) until the disbandment of the New Zealand strike force and sale of the A4 Skyhawks. "The team is very excited about coming to Wanaka. It's one of the world's great Warbirds Airshows and we have had no trouble finding volunteers for the trip over," says Easty.

Warbirds Over Wanaka General Manager, Ed Taylor, is thrilled to have the Hornets back. "We always get magnificent support from the RAAF. Who will forget the F1-11 and C-17 displays of a few years ago and more lately we have had the Hawk jets along with the Spartan". "To have this many Hornets returning will be awesome. With the Hornets being phased out over the next few years it will possibly be the final time we get to see a 4-ship of these fine aircraft flying in New Zealand," says Ed.

Two years on from the disappointment of being a late withdrawal from the Warbirds Over Wanaka International Airshow, organisers have confirmed a **Polikarpov I-16 aircraft** will make an emotional return to Wanaka next Easter.

The plan was for the aircraft to be one of the stars of the 30th Anniversary of the world-renowned event in 2018. However, mechanical issues just two weeks out from the final possible shipping date meant the plan had to be abandoned. Not deterred, Airshow organisers have continued talking with the German owner of the aircraft and it is now in a shipping container bound for New Zealand.

When the aircraft arrives, it will be reassembled at Wanaka Airport by Callum Smith and his team of engineers at Twenty24 Ltd ready for former World Aerobatic champion Jurgis Kairys from Lithuania to take the controls at the Airshow.

The aircraft is one of the nine Polikarpovs famously restored by Airshow founder Sir Tim Wallis back in the 1990s. The recovery of the six Polikarpov I-16s (fondly known in Russia as Ishak or Little Donkey) and three I-153s is still regarded as one of the most audacious Warbirds restoration projects ever undertaken in the world.

Warbirds Over Wanaka International Airshow is being held at Wanaka Airport on April 10th, 11th and 12th next year. For more information and tickets go to www.warbirdsoverwanaka.com

CLUB CALENDAR 2020

2020 CRAC Calendars will be available in the Club rooms December 2nd

Limited edition

\$15.00 each.



Canterbury Recreational Aircraft Club
Advantage of CRAC members

Photo credits and with thanks to

Brian Greenwood, Hamish Crowe, Will Aitken, Ray Corbett, Vanessa Martin and Michael Kinson

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COMMITTEE NOTES DECEMBER 2019

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- ADS-B Out deal offered by Avionics Canterbury
Wide accepted for one club aircraft
- Security Cameras in progress
- 12 month subscription to donated SPOT
purchased
- Gearbox claim on Rotax not progressed as
dealer technical person unavailable(!)
- RGB has done approx. 1800 hours, planning for
new engine to commence shortly
- Hand-held transceiver purchased for us by
instructors
- Marketing position vacancy still unfilled
- Possibility of a photo gallery on web site (in the
meantime facebook provides that functionality)
- New hand-held radio can interfere with
Weather Station
- Peter Collins has updated AIP and purchased
the latest VNC which is installed in the club
rooms (Have you got YOURS?)
- Anecdotes from early club days requested for
club history
- Club aircraft well-utilised except on Sundays,
promotion ideas sought
- CRAC officially thanks RAANZ for their great
work with the CAA and SAC on the "on-
condition" program
- Topics raised with CAA via RAANZ: Possibility of
paying Instructors, total hours crediting to PPL
- CAA strictly enforcing microlight restriction
from flying over congested areas as per rule
91.105 and 103.155
- Waimakariri District Council has signalled that
it will be doing compliance audits on NZRT
hangars at some point



Polikarpov I-16 Bound for Warbirds Over Wanaka 2020 – Photo © Chris Gee



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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

1st February 2020 – Healthy Bastards' Bush Pilot
Championships, Omaka Airfield

10th-12th April 2020 – Warbirds Over Wanaka
International Airshow, Wanaka

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.

CONTRIBUTIONS AND ATTRIBUTIONS

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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.*

NEW MEMBERS

Welcome aboard to:

Greg Dawson-Sheehan
Kenneth Thrasher
George Dudson
Vivienne Patterson
Josh Stainton
Samuel Nicholson
Richard Batchelor
Christopher McLeod
William Baker

Please make our new friends feel
welcome.

NEXT NEWSLETTER

Contributions for the next edition
are requested, publishing deadline
January 22nd, 2020 ("ish").

Next publishing date approx. January
29th, 2020.

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

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