

REC WINGS

THE MAGAZINE OF THE CANTERBURY RECREATIONAL AIRCRAFT CLUB



- CRAC OPEN DAY
- AOPA FLY-AWAY
- ALPI 300 AIR TO AIRS
- ADS-B OFFER
- HILLER AVIATION MUSEUM

NOVEMBER-
DECEMBER 2019



PAGE 3



PAGE 7



PAGE 12



PAGE 16



PAGE 19



PAGE 25

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.

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Contributions for the next edition are due by **January 8th**. We invite contributions from all, with editorial discretion being final.

Brian Greenwood
editor@crac.co.nz

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Cover, Logan McLean in Steve Lyttle's Alpi Pioneer 300 Griffon, and David Leefe in his Alpi Pioneer 300 - both gracing the Lobburn training area.
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CONTENTS

Club Open Day	3
AOPA Fly-Away	7
Alpi 300 Air to Airs	12
Hiller Aviation Museum	16
Royal Thai Air Force Museum – Part Two	19
ADS-B Transponder Club Offer	23
Celebrating our Successes	25
Warbirds Over Wanaka Updates	25
Committee Notes October-November 2019	26
Farewell Aero and Flightpath Magazines	26
Upcoming Events	28
New Members	28
Congratulations	28

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CLUB OPEN DAY

BRIAN GREENWOOD



CRAC held its club open day on November 2nd, somehow the organising committee had managed to pick the perfect day – well done! There was some concern that we had over-cooked the publicity when it got to the Otago Daily Times, but luckily we weren't completely over-whelmed - just a good flow of visitors for the whole event.

Talking of publicity, Club Captain Nick Hitchins did a fantastic job on the local radio station, Compass FM, and Glenn Martin was well-quoted in the newspapers. All of this was orchestrated by the Event Manager, Padi Nistala. Padi did a superb job, even managing to keep us pilots focussed on non-flying tasks (acknowledged as one of the world's most difficult jobs!).

The event was very well supported by the local aviation community, it was especially heart-warming to see Ivan Campbell and friends turn up in three scale Spitfires and a Titan Mustang.

Because the day was an Open Day, not an air show, we had no flying displays organised. There was only normal flying scheduled for the day.

It was very appreciated when two of the Spitfires took off and did a cool departure for a fly around the towns and arrived back in style.

It wasn't just the Spitfires getting the attention – the trial flights were booked out within an hour of the event

starting, and the Instructors were busy with both the circuit flights and the trail flights.

On the subject of the circuit, I was privileged to listen to the radio for a while, and the radio discipline was impressive. Calls were clear, concise, and accurate. Given that the circuit (including re-joins) was packed, it was a perfect example of how well an unattended airfield can work.





A cool view of the airfield during the later stages of the Open Day. Note the Pipistrel on 07, two Alpi 300's about to line up and roll for the air to airs, and two Spitfires warming up to do some fly-overs of Rangiora and Kaiapo

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Above and preceding page, the crowds had dissipated a little by the time we got into the air, however it was a great turn out without being too crowded.

Below, left to right; our good friends at the ATC kept us fed; Stu testing the PA System on Glenn; and one of our younger enthusiasts.



Above, some people will do anything to further the tailwheel cause.

Below, left to right; Trevor Shadbolt brings his Autogyro Calidus for display; Piper Cub ZK-CXC; Trike!





*Above, the "military" contingent
Below, it's a good day when you can capture a couple of Karatoos on camera!*



To say the day was a big success is an understatement, it was very well received by the members of the public I spoke to, and I've also heard from a few colleagues and associates who were intending to head along but couldn't for various reasons.

We did gain a few new members, but the aim of the event is more than that – to publicise our hobby, prove how much fun can be had **safely**, and demonstrate to the local authorities that it's not a rich man's sport but a peaceful, positive pastime that is available to all.

Mission accomplished!



AOPA FLY-AWAY

BRIAN GREENWOOD

This year's adventure started with an invitation from fellow micro-lighter, Paul Godfrey - "Do you have a ride to the AOPA fly-in?" - Nope, and I'd love to come!

The AOPA fly-in is a yearly event organised by Ian Sinclair, Murray Patterson, Charlie Draper, and others. Last year Ian hosted me around a series of high-country strips in his Cessna 172. This year Paul's capable and characterful Kitfox was the carriage of choice.

AOPA, the Aircraft Owners and Pilots Association, is an international organisation formed in 1932 to advocate for and promote general aviation. It has over 430,000 members across 66 countries. If you have any doubt that this international organisation has had a positive effect on GA in New Zealand, you can read about some of their successes here: <https://www.aopa.org/about/history-of-aopa>. The New Zealand branch hosts fly-ins (fly-aways?) such as this one to up-skill pilots and have a damned-good natter on the way.

September 21st kept its promise of being a superb weather day - fine, clear, and scarcely any wind at all. Perfect for perilously perambulating past precipitous peaks. We departed NZRT at the crack of 0800 and rendezvoused at Charlie Draper's Darfield strip ready for the briefing at 0900.



The briefing was similar to last year, grouping pilots and aircraft by ability and performance and matching them to suitable strips. Paul elected to fly with the northern group as there were a few airfields he hadn't been to before.

We took off and headed for Castle Hill, cruising past Springfield and getting a good look at the nearby Kowhai Railway Viaduct (*below*). It could only have been more perfect if there was a Kb storming its way towards Arthurs Pass.



The farmer who kindly let AOPA use Castle Hill had, again, removed a fence between two paddocks to lengthen the strip. I didn't see anyone land before the gap but at least they could touch down closer to the edge of the paddock. Not being a country boy I couldn't figure out what was growing on the strip but I assume there'd be cattle feeding in there before too long.

The view from the Castle Hill strip is pretty stunning, watching the aircraft downwind against the snow-laden peaks, and the base leg and finals have some remarkable limestone formations as a backdrop. Even when parked, the aircraft had the snowy peaks in the background, so many photo opportunities, so little time! There were over half a dozen aircraft in this group, including Cessna 180's, Piper Cub, Rebel Murphy, Rans S7, and a lovely early Cessna 172 with a patina of age which car collectors would go nuts for.



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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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www.lightaviation.co.nz



From there we departed for Avoca, with Paul showing me where a coal mine used to operate - interesting because it was extracted via a cableway to a nearby hilltop (**below, left**). The remains of the boiler which powered the cableway is still visible. On the approach to Avoca, my role as second set of eyes (always a helpful thing) was compromised by the view of the Broken River Viaduct, another of New Zealand's historic railway gems (**below, centre**). Memories of a road trip in there during a hoar frost... happy days!



Avoca isn't the most wonderful of strips and we didn't lurk there long. Next up was the Grassmere strip, which I think used to be an emergency landing ground for DC-3's. It's a right-hand circuit to land uphill, and reasonably rough but nothing a Cessna or Kitfox can't handle. Paul seemed to mainly navigate by instinct, it's always great to fly with more experienced pilots and get some tips. Again, some wonderful scenery at the western end of the runway, and an opportunity to socialise and make a few new friends is always appreciated. The Cessna crews, for example, always seem to be good down-to-earth approachable people, must be something in the DNA.



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With a promise of lunch at the next stop we headed for the Lake Pearson strip. I had an enjoyable flight into here with John McCaul and his Tecnam a couple of years ago, I remember he was very careful about placing the aircraft away from the dips and troughs in this paddock. Paul was already well aware of this and went in first. He was able to advise the others of the best landing area once we had arrived comfortably.



I'm trying to find a few new superlatives to describe the surroundings, but perhaps I'll just say "beautiful" and "idyllic" and let the photos speak for themselves. An Alpine lake, lush green meadow, some fine examples of aeronautical engineering, and some cool pilots and co-pilots to chat with. Lunch was very tasty too, thanks to my significant other.

Paul's Kitfox was having a little difficulty with hot starts (that was fixed the following weekend with some minor carb tweaks, which shows that even the superb 80hp Rotax 912 can have an off day) but the longer break was enough to reset things. It was such a nice

environment, and brought back some nice memories of the flight with John that I was reluctant to leave, but time was pressing and the Mount White Homestead strip was calling.

This strip has another top-dressing strip close by, so after we had landed, gossiped, and salivated over the sweet-but-careworn Lycoming-powered Auster (*Below, right*), we took off and re-circuited for the topdressing strip, just to say we'd done the two!

There had been a little discussion about the next strip, it had been decided to try the "N-word" strip, by the "N-word" hut (*Four photos, below*). You might remember the fuss in the media a couple of years ago when it was proposed to rename the river, but they forgot about the Hut and the strip name.



As for the strip itself, it wasn't exactly level! One of the first pilots down gave a radio call, which, translated gentlemanly, comes out as "my goodness that isn't smooth", although they managed to say it more succinctly. I think I would have finished the landing roll with my wheels pointing skyward, but Paul's a vastly more experienced pilot and managed the whole thing a lot more gracefully. None-the-less the undercarriage springs probably had the best work-out they'd had for a while.



We had a look around but it was obvious that the hut was in use, so we stayed outside - there was a pair of pants and two pairs of boots hanging off the horse tying-up thing. Given the number of pig bones around I suspected there were two bare-foot hunters, one of them trouser-less for some outdoorsy reason, wandering around with guns.

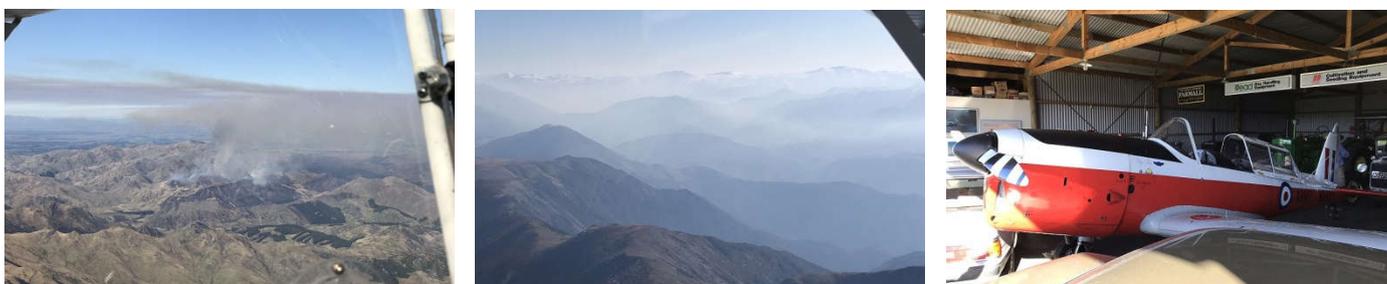
None of us were keen to try the strip for take off. Paul and I walked it to find the best bit, honestly the four-wheel drive track running across it looked more inviting! However, there was no point in waiting for the bare-footed-hairy-arsed hunters to return, so we gave it a go. In the end it wasn't too bad because the Kitfox takes off in (what felt like) 3 metres, and it wasn't any more exciting than your average Sea Harrier off Ark Royal's Ski Jump (sorry, that should be F-35 off the big Bessie now).

Onwards to Lochinvar we were heading towards some snowy peaks when we spotted a powered glider with the propeller pylon raised, flying close to the hills and heading towards the following aircraft, within half a mile of us. We were unable to raise it on the glider or local frequencies, so Paul warned the following aircraft to keep an eye out for it.



Lochinvar turned out to be another bumpy but achievable affair, with an odd little corrugated hut (tiny house?) complete with upstairs room and verandah at the top end of the strip (*above, right*). There wasn't so much to look at here so we departed and headed for Lake Sumner.

On arrival there were some white horses on the lake showing a good wind directly from the west, so we decided that discretion is the better part of valour and headed eastward for Lou McAllister's at Cust. On the way we passed a large scrub fire in the foothills, with an attending helicopter or two. Looking away from the fire it was interesting to see how the plume of smoke became a general haze back in the hills, ruining the previously perfect visibility.



Last year Lou's place was a lunch time stop and the air traffic was a little busy at times! This time it was a social call and the arrivals and departures were more spread out. Lou's got a good collection of tractors, farm machinery, cars (including a super Ford Model A), and a De Havilland Chipmunk. Always a good yarn and company (and an appreciated pit stop), we reluctantly headed home to Rangiora.



Paul made a quick call to Charlie to say we'd completed the day and were back home, so they didn't send a P-3 out to look for us.

Thank you to Paul Godfrey for the thoroughly enjoyable day, and to the good folk at AOPA for hosting this well-organised event. They even managed to get the weather perfect for mountain flying, I don't know how they do that!

If you're looking to extend your flying further from the CRAC and RAANZ sphere, I heartily recommend joining AOPA. They're microlight friendly and have advocated actively and successfully for our sort of flying for many years.





ALPI 300 AIR TO AIRS

BRIAN GREENWOOD

Logan McLean, the local Alpi agent, kindly dropped in to the CRAC Open Day while delivering **Steve Lyttle's** brand-spanking-new Alpi 300 Griffon. It's a fantastic-looking aircraft with full mod cons, and certainly added to the variety of flying machines on the field – representing the top end!

Although he had to leave early afternoon, we took the opportunity to combine a photo shoot of the field with a quick air-to-air sortie on his way south. **David Leefe** was available in his slightly earlier model Alpi 300 as well, so we hatched a cunning plan... **Roy Waddingham** kindly removed the door from his and **Dean Waller's** Tecnam P-92, ZK-PAB. Roy, as always is a keen and very competent camera ship pilot.

Obviously, being a delivery flight, it would be rude to rack up extra time on the new aircraft, so it was kept reasonably local to Rangiora Airfield. You can see River Junction (a local reporting point) in the background of some of the photos (*below*)



Initially we were worried about the speed difference of the slippery Alps vs the Tecnam-with-a-door-off and thought it best if they flew slowly past, which worked well. I didn't call the Alpi's in closer, in retrospect a

mistake, but I think I always get buffeted around in the slipstream and think it's bumpier than it really is! Poor excuse... anyway, the aircraft look superb against the lush green North Canterbury background.



I'm very grateful to **Logan McLean** for the opportunity, **David Leefe** for the supporting aircraft, **Roy Waddingham** for the great skills, and Roy and **Dean Waller** for providing the camera aircraft. And to Alpi for building an aircraft that's sexy from any angle!





Logan McLean in Steve Lyttle's gorgeous Alpi 300 Pioneer Griffon, over the Loburn Training area.
© 2019 Brian Greenwood



HILLER AVIATION MUSEUM

PHOTOS AND TEXT: TIM WARD

On a recent trip to San Francisco I ventured down to San Carlos via Caltrain, a local Californian Train system operating south of the city. On recommendation from a colleague in the airline, The Hiller Aviation Museum situated at the San Carlos Airport, is an aircraft history museum worth a visit. The museum was founded by Stanley Hiller in June 1998 and is endowed by members of the Hiller family. It specialises in Northern California aircraft history and helicopter history. This museum has more than 50 aerospace vehicles along with companion descriptive displays concerning the history of flight. Some of the more interesting exhibits:



The “Classic” Bell 47 was the first helicopter certified for civilian use in March 1946. Perhaps one of the most iconic of all helicopters, over 5600 were produced, entering U.S military service in late 1946 in a variety of versions and designations for three decades. In the Korean War it was designated the H-13 Sioux by the US Army. It’s final year of production was 1974.

Used extensively for early NZ deer recovery and many people readily identify the Bell 47 with the famous appearance in the TV show M*A*S*H.

The VXT-8 Coleopter “Ring Wing” VTOL Aircraft introduced in 1957 as the first attempt with vertical take-off and landing concept which consumed the young Stanley Hiller Jr.

By the mid-1950’s, Hiller and his company had already built helicopters and unique prototype aircraft for the military that were made of lifting bodies, ducted fans, rotors and jet engines. The Hiller Coleopter (from the French word “Coleoptere” meaning “beetle”) was inspired by a French aircraft design of the mid 1950’s.

The Aerocycloid (**Top Right, next page**) was an early prototype in vertical flight in 1908. The disk-shaped “platens” descended flat to create lift in the horizontal orientation over the centre of gravity then rotated to vertical angle while ascending to minimise air resistance.



It was intended that the pilot would move large levers forward or aft at the same time to tilt the platens causing the aircraft to move forward or backward. Moving the platens in opposite directions warped them to move the craft sideways. The idea of “collective” control of the lift producing elements foreshadowed similar technologies in helicopters that would appear decades later. The Aerocycloid’s seven horsepower Indian motorcycle engine did not provide the necessary power for flight. In was an excellent example of thinking “outside the square” and a hallmark of innovation in early years of powered flight.



The Monocoupe Model 70 (**Above, left**) is a High wing 2 seater introduced in 1928 and built by Central States Aero Corporation, designed by Ken Luscombe. Fuselage constructed of steel tubes covered in fabric with the wings being wood covered in fabric. The first factory built, new generation light sport aircraft, it set the design trend for many years to come with the name “Monocoupe” referring to the “one” wing design over a two-passenger enclosed car, “coupe”. Powered by a Velie M - 5 Radial Engine, the only true light airplane engine available at the time, the aircraft was remarkably “peppy”. The aircraft went out of production in the 1948, a victim of the slow, post-war economy.

The Ames Dryden AD-1 (**Below, Right**) was designed to explore the piloted flight characteristics of the pivoting wing, or oblique wing concept that had been proposed by famed Ames aeronautical engineer R.T Jones. It was

swing-wing concept, with detailed designing done by Burt Rutan, world renowned designer and builder of unique aircraft using composite construction. A 60 degree swinging wing from 90 degrees to fuselage, the oblique wing concept of a straight wing for take-off and a swept wing for high speed with some unusual handling qualities that must be addressed via sophisticated flight control computers.



SPYPLANES!

The Lockheed YO-3A. In 1960 the U.S. Army was forced to seek new aerial surveillance techniques to observe North Vietnamese forces at night. By 1966, no aircraft were capable of monitoring the night-time manoeuvring of the North Vietnamese forces because engine noise alerted enemy personnel. The Lockheed YO-3A was the first aircraft that could evade such detection. Light body, long wing span, small and well-muffled engine, it had on-board surveillance equipment that utilises a sensitive night vision system with infrared-enhanced intensification and a laser target designator. The 11 aircraft conducted numerous surveillance missions in Vietnam from 1969 to 1972. Later the FBI used the aircraft over Los Angeles from 1974 - 1978 collecting information on kidnapping and espionage cases including the abduction of heiress Patty Hearst.



And to end the eclectic museum tour was the 1958 Messerschmitt “Cabin Scooter”!

Outside was an ex- British Airways 747-200 flight deck which brought back memories.



ROYAL THAI AIR FORCE MUSEUM - PART TWO

BRIAN GREENWOOD

CONTINUED FROM RECWINGS SEPTEMBER-OCTOBER



Above left to right, Alpha Jet, RTAF-6 (SIAI-Marchetti, locally developed with a 420SHP Turboprop), Spitfire XIV, and Grumman Widgeon Below, Pilatus PC-7, NZAI CT-4 Airtrainer, DH 82 Tigersmitty (sorry, Tiger Moth), OV-10 Bronco



Centre row above, Fairchild and details, and an Aeritalia G.222 (right)
 Bottom row above, looking like a squashed Strikemaster, the superb Cessna A-37 Dragonfly
 Below, The Royal Thai Navy operated 14 A-7E and 4 TA-7C LTV Corsairs from shore-based airbases from 1995 to 2013.





Top, the Royal Thai Navy operated 7 AV-8S and 2 TAV-8S Matadors (AV-8A Harrier originally built for the Spanish Navy) from the Thai aircraft carrier HTMS Chakri Naruebet from 1996 through to 2006.

Above centre and left, an aircraft that I never thought I'd see in the flesh – a rare Curtiss Helldiver in excellent condition.

Above right, three photos of an aircraft that I'd be keen to have in my dream warbird hangar – an early version Fairey Firefly. A successful, under-rated, two seat Naval fighter powered by the mighty Rolls Royce Griffon.

After the sheer joy of the Harrier, Helldiver, and Firefly, it was time to sample the delights of the air-conditioned museum building. From the impressive foyer display shown on the opening page (previous edition), one turns left into a display of the early history of the RTAF.

Replicas of a Breguet II and a Nieuport IV represent the early Thai personnel who were sent to Villacoublay in France to learn to fly in 1911. The pilots and aircraft returned to Thailand and established an air base at Don Muang in 1914 (having operated from a race course temporarily). Don Muang is still the main Thai Air Base and Bangkok's second International airport. Some well-done Dioramas illustrate the early history, adding a three-dimensional image to the story.

Past the early history section lie a couple of the absolute gems of this collection – the world's only surviving Vought V-93S Corsair (the biplane, not the bent-wing naval fighter of WW2) and the only surviving Curtiss Hawk III aircraft.



Above left, the last remaining Vought V-93S Corsair. This is a Thai version of the U.S. Navy's O3U-6 scout modified for ground attack with two additional forward firing machine guns. These entered service in 1934.

Right, the last remaining Curtiss 24 Model 68B Hawk III, of which 24 were purchased in 1935, with some being active until 1949. Both of these aircraft are significant to Thailand because in November 1940 they undertook the first aerial combat missions.



Above left to right, Grumman Bearcat, Lockheed T-33, the first production F-5A trainer, and the first production F-5A single seat fighter!. **Below**, the gorgeous SAAB Gripen is in current service, represented by this airframe with Swedish markings on one side and RTAF on the other.





Top, the last remaining Curtiss P-36 Hawk 75, a very significant aircraft in world terms!

Above left to right, A Tachikawa Ki-55 advanced trainer from 1939, Vietnamese MiG-21, Aero Vodochody L-39 Advanced trainer, and Gliders.

Below, the very rare Boeing 100E version of the Boeing P-12/F4B fighter from 1929

I obviously enjoyed my day exploring the museum and I can recommend it to any one, not just aviation fans. There's enough broader detail to keep everyone interested. The café is good - we were lucky enough to order our food just before – with a little exaggeration – a *zillion* well-behaved secondary school students arrived for lunch. The Souvenir shop was excellent, too.

The collection has a number of historically significant airframes which are obviously well-maintained and valued. Hopefully the Spitfire and Firefly will come up for maintenance soon, but I'd say they're in good hands.



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.



- 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, our special price will be 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 an LAME.
3. Prove that it works to the required standard.

David Harnett, Avionics Canterbury



DAVID HARNETT L.A.M.E
Avionics Canterbury Wide Ltd www.avionicscanterbury.co.nz
P. 03 310 6576 M. 027 222 0872
E. avionicscanterbury@gmail.com
394 PRIORS ROAD | FERNSIDE, RD1 | RANGIORA 7471

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.

CRAC Christmas Dinner – December 14th
Fabulous after dinner speaker – Comic Genius
Peter Rowley!

The cost is a heavily subsidised \$50 per head all inclusive. Starts 5:30pm
Caterer - <https://www.misslillys.co.nz/>



To book, email treasurer@crac.co.nz
Please advise any dietary requirements.
Payment required in advance – REGISTER NOW!

Tecnam P92 for HIRE



100hp Tecnam P92 Super Echo available to CRAC members for hire at \$125 per hour.

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For further details or to register for the booking system e-mail thelightaircraftco@gmail.com or phone Erin Heese on 027 292 3689.

CELEBRATING OUR SUCCESSES

Hearty congratulations to **Nigel Malham** on his first solo in late October.

Thanks to **Glenn Martin** for the photo.

Please send any images and notifications to editor@crac.co.nz

Missing in action this edition:
The promised article on the Wings over NZ Forum has been held back due to space requirements.



WARBIRDS OVER WANAKA 2020 UPDATES

There are some exciting announcements coming from the good folk at Wanaka. Amongst the items are a very historic Beech Staggerwing being restored (amongst 3!) which will be on display in the Twenty24 Limited Hangar. Twenty24's original Staggerwing restoration, Cam and Tracey Hawley's beautiful VH-UXP will display during the show.



The Croydon Aircraft Company will display one of only 2 airworthy DH Dragonfly's in the world. The super Yak-3 'Steadfast' (recently domiciled in NZ) will be performing, and the P-40N will be firing its guns!

Fraser Briggs will be displaying Mike Briggs' 1/5th Scale Mosquito, with Mike acting as Bomb Aimer.

Come and get bombed and strafed at Wanaka – April 10th to the 12th, next year. (Mosquito Image supplied)

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NZLX AIRPORT MOTELS
ALEXANDRA AIRPORT : CENTRAL OTAGO

FAREWELL AERO AND FLIGHTPATH MAGAZINES

BRIAN GREENWOOD

Sad news from Australia that two well-respected publications, Aero Australia and Flightpath, are ceasing publication.

Flightpath state that the readership numbers are still pretty good, but publication costs are up, and advertising revenue is down.

Aero Australia have stated that ongoing medical issues have forced the decision to cease publication.

RecWings would like to thank both sets of editors for their contributions to Aviation Journalism and to wish them all the best for the future.

I've never met Rob Fox (Flightpath), but I hope Wendy and Stewart Wilson (Aero) still make it here for the air shows, it's always a pleasure to meet them.

COMMITTEE NOTES

OCTOBER-NOVEMBER 2019

- Culverden Fly-in very successful
- Door code change implemented
- \$1500 budget approved for the Open Day (profit of \$350 recorded)
- Consideration given to purchasing a 2nd hand transponder for RGB, overtaken by events, and new ADS-B transponder approved through the deal offered by Avionics Canterbury Wide (see separate article). To be fitted in the youngest Tecnam, RGC.
- Correspondence – a letter of appreciation received from the Waiiau Small Bore Rifle Club for the Culverden Fly-in
- \$10K paid off RGC loan in October, further payment shortly, subject to funds
- Instructors to ensure that students have paid their subs before flying
- **Peter Rowley** kindly offered to do an after-dinner speech at the Xmas function on Dec 14th. As he's one of NZ's comic geniuses the offer was accepted gratefully.
- Xmas dinner subsidy set at approx. \$20 per head leaving members to pay \$50 per head, everything included.
- iPad with AvPlan installed in RGC
- Ongoing work to bring RGC up to our specs
- RGB control push-rod replaced
- Old gearbox returned to Rotax in Australia, being checked
- SPOT kindly donated by Peter Collins to club – will trial for one year's subscription
- Club cleaner doing excellent work
- RAANZ officially thanked by CRAC for work on On-Condition program
- Need to promote Sunday flying to keep aircraft utilised (although hours overall are good) – 117 hours for October.
- Hangar leases to be amended to remind members about responsibilities (e.g. no welding/painting etc) in club hangars, and their liabilities for damage
- New printer to be purchased for club rooms

AVIONICS DIVISION



AVIONICS

- Fully equipped mobile avionics maintenance unit
- Fault diagnosis and repair
- Complete aircraft wiring installations
- STC projects
- Modifications for rotary and fixed wing aircraft
- ADSB compliance



ENGINEERING TEAM



MARK KERSHAW
LICENCED ENGINEER



ANDREW DUFF
LICENCED AVIONICS ENGINEER



ADAM KERSHAW
ENGINEERING TEAM



ROB DAVIS
ENGINEERING TEAM

24 MONTH
AIRCRAFT
AVIONICS
INSPECTION FOR
\$375+GST

MICROLIGHT
& GLIDERS -
TRANSPONDER
& ALTIMETER
CHECK FROM
\$265+GST

ENGINEERING

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- Modifications
- Refurbishments & Part Sales
- Pre-purchase Inspections



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Hangar + HQ: 880 Forks Road, Alford Forest
RD1 Ashburton, New Zealand
Email: mark@mthutthelicopters.co.nz

Phone: 027 425 5862
Freephone within NZ: 0800 443 547
mthutthelicopters.com

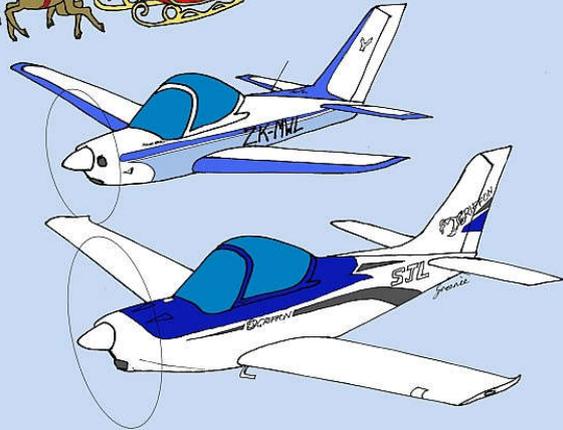


Merry Christmas!

Season's Greetings

Meri Kirihimete

From the crew at CRAC



**CANTERBURY
RECREATIONAL
AIRCRAFT CLUB (INC)**

P.O. Box 440
Rangiora 7440

www.crac.co.nz

WHATSAPP

CRAC Drop Of The Hat
CRAC Revolution (for chat)

FACEBOOK

www.facebook.com/flyCRAC



Interested in joining us?

E-mail secretary@crac.co.nz or use
the online application form.

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

UPCOMING EVENTS

26th November - NZRT Safety meeting, CAC
Clubhouse, NZRT, 1900

14th December – Club Christmas meal in the
hangar, 5:30pm, to eat 6:30pm. RVSP ASAP to
treasurer@crac.co.nz. Heavily subsidized by the
club at \$50 per head all-in. Payment required in
advance.

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**

Tim Ward, Logan McLean, David Leefe,
Roy Waddingham, David Harnett,
Glenn Martin

Heart-felt thanks to our contributors
RecWings logo by Eric Lim.

Printed edition kindly sponsored by:
Archibalds Motors Limited

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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:

- James Batchelor
- Mitchell King
- Stephen Walker
- Beaumont Neill
- Jake Eastwood
- Joseph Curtain
- Phil Wright
- Peter Stanton
- Mark Richards
- Donald Offwood
- Nigel Malham
- Max Robertson
- Don McCleod

Please make our new friends feel
welcome.

CONGRATULATIONS

Craig Ruane, ADV National
Philip Wright, ADV National
Colin McDonald, Flight Instructor
Thanks to the RAANZ e-zine RecFlyer for the
information

NEXT NEWSLETTER

Contributions for the next edition are
requested, publishing deadline January 8,
2020.

Next publishing date approx. January 17th,
2020

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