

RECWINGS

THE MAGAZINE OF THE CANTERBURY RECREATIONAL AIRCRAFT CLUB



- KEVIN'S NEW ALPI
- NZRT OPERATIONS
- JABIRU PROPELLER ISSUES

SEPTEMBER-OCTOBER 2020



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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 **November 11th**. We invite contributions from all, with editorial discretion being final.

Brian Greenwood
editor@crac.co.nz

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Cover, Kevin Dore's beautiful Alpi 300 ZK-KPD against the foothills of the Southern Alps, with the blue haze of an early afternoon spring day as a backdrop.

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KEVIN'S NEW ALPI 300

BRIAN GREENWOOD

Three days of perfect weather at Rangiora gave us an opportunity to photograph **Kevin Dore's** Alpi 300 Pioneer. **Roy Waddingham** once again kindly piloted and provided the camera ship in the form of his and **Deane Waller's** Tecnam P92.

Kevin's previous Alpi 200 has featured in our September 2018 magazine along with **David Leefe's** Apli 300 (*below, front aircraft*).



September must be the month for Alpis!

Kevin not only flew formation for the photos but kindly allowed us to interview him about the new aircraft. As Kevin is the Airfield Safety Officer for Rangiora, I refrained from my usual request for a low-level inverted pass up the runway. All joking aside, it was great to get another perspective on the way we run our air to airs.

The Alpi 300 Pioneer is a factory-produced aircraft based on the earlier Vidor Champion V homebuilt. It is a very different aircraft to the Alpi 200-series of fixed undercarriage machines.

Factory Specs:

Length	6.25m
Wing Span	8.10m
Cabin Width	1.05m
Empty Wt	285kg
MAUW	499kg
Load Factor	+3.8/-1.9g
Fuel	80 litres
Baggage	226 Litres/20kg
Max Speed	270 km/h
Cruise @ 75%	240 km/h
Stall	65 km/h
R.O.C.	1500 ft/min
Range @75%	1000 km



When did you upgrade?

February 2020

What happened to the old aircraft?

The Pioneer 200 was purchased by Stuart Larson at Fernside Fields

Is this one new?

No, it was new in 2011, originally imported for Ross Scarlett in Karamea, and registered as ZK RJV. It then went to Geoff Rogers in Dunedin, now in Wanaka who has just purchased an amazing Alpi Pioneer 300 Griffon

with a limited edition (red rocker covers) Rotax 915 turbo engine. When the Griffon arrives around the end of 2020, it will cruise along at around 145 -150kts. I can't wait to see it. It is only the second Pioneer Griffon in New Zealand, the first one SJL went to Steve Little in Timaru.

What was your motivation to change?

The aircraft had only flown less than 300 hours. I wanted to get places quicker in a plane I feel safe in. Having flown the

“I wanted to get places quicker in a plane I feel safe in.”

Pioneer 200 for around 700 hours I have a great deal of confidence in Alpi as a manufacturer. Alpi Aviation Srl based in Italy is lucky to have Logan McLean at Fernside Fields as the dealer. Logan has sold around 55 AlpIs and knows each one intimately. Pioneer owners fly from all over New Zealand to have Logan service their aircraft. That speaks for itself.

Has it made your flying more enjoyable?

It did take a while, I have to say. I loved my Pioneer 200 and there was a time when I wondered whether I had made the right decision. Now I really enjoy flying the Pioneer 300.



What's the performance difference?

100-110kts cruise in the Pioneer 200 compared to 130kts cruise in the 300. It has a retractable landing gear and hydraulic constant speed propeller.

What's the most enjoyable aspect of flying it?

The speed, comfort, Dynon Skyview with autopilot, great visibility

Anything else to mention?

It has a Junkers ballistic recovery system (Parachute) and soon to have ADS-B in and out and another Dynon Skyview touch screen.

As always, I'm very grateful to the time and effort that Kevin Dore and Roy Waddingham put in to making this article possible. Thanks, guys! (Photos next page and centre-spread)





CELEBRATING OUR SUCCESSES!



Congratulations to **Paul Hyde-Smith** who soloed under Doug Anderson's care on August 16th.



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THE CIRCUIT, HELICOPTERS, AND THINGS THAT GO BUMP IN THE DAY

KEVIN DORE, RANGIORA AERODROME SAFETY CO-ORDINATOR

With the odd exception, the circuit at Rangiora works pretty well, most of the time.

That said, at any given moment we are only one distraction or moment of inattention away from a mid-air collision. This isn't scaremongering; it is the absolute reality. So far, we have been fortunate not to have experienced such a disaster on or near our beloved airfield but no-one should believe it can never happen.

So, what can we, as individuals, members of a club or organisation do, to minimise the risk of a mid-air collision in the circuit?

- First of all, get to know the **Rangiora Aerodrome Plate** back to front. Practice in a chair at home, with a copy of the plate in front of you. Visualise how you will approach any runway on it, joining overhead from any direction. Plan your arrival, well before you actually arrive. This takes the pressure of you in the circuit because you will be busy looking out and listening for traffic.
- If there is anything you are unsure about, please ask an instructor.
- The circuit begins before you enter the Mandatory Broadcast Zone (MBZ). You must make a call 5 minutes or approximately 8 miles before you enter the MBZ stating that you are inbound to join Rangiora. That call gives a heads up to other traffic in the MBZ and circuit.
- It is extremely important to ensure you are on the correct frequency of 120.20. You may have been on 119.10 or 119.20 and just monitoring the Rangiora frequency for the active runway and traffic, on a dual frequency. Because you can hear the Rangiora traffic you may

inadvertently assume that's the frequency you are on. You then make a radio call but no-one hears it and you don't know they can't hear it. So, make it a point of ALWAYS checking your active frequency at the same time you announce your pending arrival.

- Always expect there to be traffic and don't always expect that traffic to be where they say they are. Don't take it for granted that the other traffic knows the circuit rules either. Regard them as a potential threat to your safety. Don't lose sight of them.
- The primary means of separation from other aircraft is sight. The radio should back up what you are seeing; but does it? Is there more than one aircraft?



- Learn how to look for and find other aircraft. A fast scan can miss another aircraft because it takes time for the eyes to adjust. Look in the stated direction and pause for a few seconds. If you are unsure of another aircraft's position, ask them, "say your position".
- Never be afraid to communicate with another aircraft to establish their position and altitude and in doing so, you can even use plain English such as "where are you" (expletive removed)
- Exercise tolerance. Rangiora is a training aerodrome and students are taught to fly wide and often long downwinds. It can be frustrating for more experienced pilots at times but resist the temptation to cut inside them. Remember, we all had to learn.

Helicopters

There is an increasing number of helicopters operating at Rangiora. These are mainly the Robinson R22 and Cabri G2 training helicopters. It is really important for fixed wing pilots to have some understanding of what they are doing.

Auto Rotations



When the engine fails in a helicopter it is essential that the pilot reacts automatically and **instantly**. The first action is to lower the collective in the pilot's left hand to reduce the pitch of the rotor blades because rotor speed is vital to survival. The next or simultaneous action is to pull aft on the cyclic in the right hand to control the speed and angle of descent and maintain airflow up through the rotor disc. Note the descent rate in an AUTO for a R22 or Cabri will be between 1600'-2000' per minute. At a tree top distance above the ground (say around 40'), a flair should commence slowing the forward speed and cushioning the landing by raising the collective followed by a forward movement in the cyclic to avoid a tail



Kevin Dore in his Alpi 300 Pioneer formates on Roy Waddingham flying the camera-ship, September 20th.
© 2020 Brian Greenwood

strike and assume a running landing attitude. A helicopter in an autorotation state can turn left and right as required to a suitable landing area but in doing so this will reduce the amount of time in the air. It would be very rare at Rangiora to see a “full down” auto where the helicopter actually skids along the ground to a halt.

Straight-in Auto Rotation (AUTO)

At Rangiora a normal 1,200’ circuit is flown and a call made on downwind such as Hotel Lima Delta downwind 07 for a straight in Auto or Autorotation to the triangle. The 1,200’ is maintained until at least over the threshold of 07 or at a point where the pilot thinks he can make it to the landing point.

The instructor will say to the student “practice autorotation to the triangle commencing... 3,2,1 go” upon which the student will carry out the auto procedure as described above. On completion of the auto the helicopter will usually come into a hover where the instructor will have a debrief with the student about how it went.

A 180 Auto Rotation (180 AUTO)

Similar action to the straight-in auto however, the upwind leg will usually be extended to gain that 1,200’ altitude for a close-in downwind (probably on the south bank of the Ashley River) requiring a 180 degree turn to capture the landing target. Take note that this will generally be a very close-in downwind leg.

Pedal Jam Exercises

Characterised by a very slow and low approach usually crabbing sideways to the threshold of the runway. If you hear the words Pedal Jam you should expect to have to allow for at least an extended downwind to provide adequate spacing due to the slow approach speed of the helicopter during this drill. Always be prepared to go around.

Other exercises such as slope landings and quick stops carried out in the helicopter training area to the south of the main 07/25 vector are unlikely to affect fixed wing operations.

Hover Taxying and Back Tracking

Consideration for other users and good communication is the key here. It may be that you see a helicopter hover taxying to the side of the runway in your direction when you are on final. If you have any doubts that he/she isn’t aware of you or hasn’t seen you, repeat your final call and confirm he or she has you in sight. Once again, always be prepared to go around if necessary.



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And Finally

It is incumbent upon us all at Rangiora to ensure we operate safely and responsibly every time we fly. We all have a duty of care to others who fly here. There is simply no place for second rate airmanship, rule bending or ignorance of the rules.

Similarly, if you feel you may be losing your confidence or are unsure of how much longer you can continue to pilot an aircraft, discuss it with your instructor or medical examiner. It may be time to make that decision, rather than have an incident or accident make the decision for you.

And while we are at it, lambasting another pilot over the radio for any reason is poor form. Just don't do it. Wait until you are on the ground and if you still feel aggrieved or consider that there was a safety concern, file a report.

Safe and happy flying everyone

Kevin Dore

Rangiora Aerodrome Safety Coordinator



JABIRU 2200 AND 3300 ENGINE PROPELLER INSTALLATIONS

The CAA Investigator in Charge of the fatal aircraft accident in Otaki last month has asked us to publish the following:

The aircraft involved was a homebuilt Sonex 1049 powered by a Jabiru 2200A engine manufactured in 2007.

It was fitted with a new wooden propeller the morning of the accident. This propeller has separated in flight at the crankshaft after approximately 18 minutes of flight. The propeller, spinner and flange and the rest of the bolts are missing.

The CAA issued Continuing Airworthiness Notice (CAN) 61-001 - Jabiru 2200 and 3300 Engine Propeller Installations late last week. This was sent to all subscribers of airworthiness information (operators, pilots and maintainers) and is also accessed on the CAA website at:

<https://www.aviation.govt.nz/aircraft/airworthiness/airworthiness-directives/continuing-airworthiness-notices/show/61-001>

The CAN advises Jabiru engine operators of the safety recommendations identified by the Australian Transport Safety Bureau (ATSB) with an investigation of a propeller loss on a Jabiru J430 aircraft in Australia. Propeller loss involving Jabiru Aircraft J430, north of French Island, Vic, on 8 March 2013

Whilst the ZK-NAF investigation is still in its early stages there are close similarities to the accident in the ATSB report.

As not all pilots/owners/maintainers subscribe to the CAA Airworthiness notifications, we would appreciate your help to spread the word about the CAN to owners of Jabiru 2200/3300 engine propeller installations.



MUDDER'S CORNER - AIRFIX 1/72 R.A.F. B.E.2C

BRIAN GREENWOOD



So desperate for a B.E.2c am I that I ventured back into the realms of the tiny 1/72nd scale (a.k.a. “braille scale”) to get a model of this significant aircraft. That’s a standard sized match in the heading photo.

Why the B.E.2c, I hear no-one ask?! The B.E.2 was designed by the Royal Aircraft Factory (formally the Royal Balloon Factory, eventually renamed to the Royal Aircraft Establishment after the creation of the Royal Air Force in 1918) and was the first aircraft that the fledgling Royal Flying Corps took to war. It was a very good aircraft for its time, even though it was mired in controversy when the Germans produced a single seater scout with synchronised machine-gun (Fokker E.I through E.IV, and the rarer Pfalz E.I) which decimated the slower and less manoeuvrable B.E.’s.

“B.E.” stood for “Bleriot Experimental”, which meant it was a tractor design in the same manner as Bleriot’s, even though the B.E. had nothing to do with the French designer and aviator.

The B.E.2 was considered an excellent design as it was a remarkably stable aircraft (unusual in its day!) and located the pilot in the rear seat so the absence or presence of an observer would not affect the centre of gravity. A stable aircraft capable of being flown hands-off (the pilot operated the camera) was a game-changer.

These features became a hindrance when fighting against the German Scouts, with the field of fire from the front cockpit being extremely limited. The British Press nicknamed it “Fokker Fodder” and the name stuck.

History has shown that the single most important feature of World War One ground warfare was the artillery. The early battles showed that the only way to advance was to have an effective pre-battle barrage to soften up the defences and reduce the barbed-wire fences through no-man’s land. An effective “creeping barrage” would allow soldiers to advance with considerably less risk.

Aircraft were the most efficient means of locating targets. Artillery spotting greatly increased the effectiveness of the barrage and lowered the casualties of

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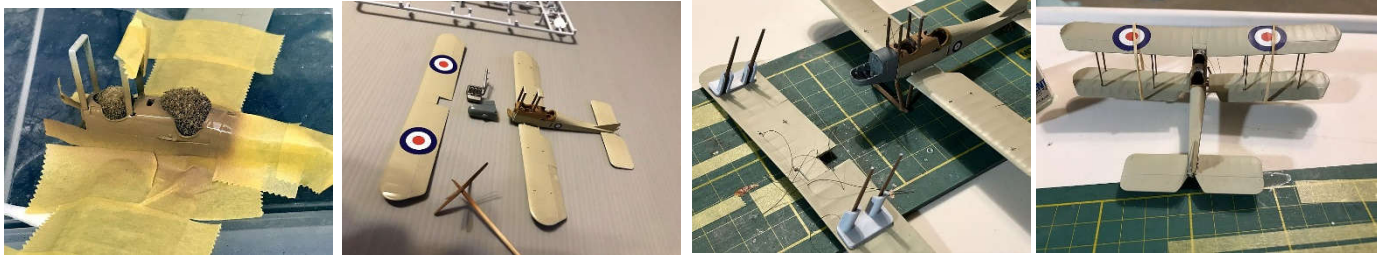
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one's own troops. Little wonder that both sides placed a huge emphasis on these roles.

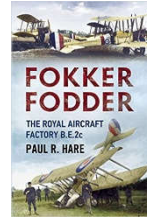
The B.E.2 in all of its variants soldiered on through the early war years, eventually being replaced by more effective aircraft such as the R.E.8, F.E.2, etc. Despite its humble performance the B.E.2 was used to down 6 German airships attacking the U.K., and 2nd Lt. William Rhodes Moorhouse earned a posthumous VC in one after an attack on the Courtrai Railway Station in 1915.

This Airfix kit was released as a new moulding in 2016, with the version I built being a re-box with new decals in 2017. It's very well engineered for such a tiny kit, and just fits together as per the instructions. No drama, no fuss. I wanted something quick and simple to fill in a gap and decided to just paint it without any pre or post-shading to try the kit out.



For some reason I then decided to rig the thing like it was a larger 1/32 kit, using the same techniques and materials. This didn't go too badly except it takes just as long to do a 1:72nd kit as it does to do a 1:32nd one!

It's a good kit and deserves better skills than I have thrown at it to get a good result. I just wish Wingnut Wings had done one in 1:32nd scale but we have to appreciate the gems they did produce before that company failed.



Sources:
Fokker Fodder, The Royal Aircraft Factory B.E.2c by Paul R. Hare
Bloody April: Slaughter in the Skies over Arras, 1917 by Peter Hart

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PUKAKI TRIP

WORDS: WARWICK COOMBRIDGE

PHOTOS: GLEN COOMBRIDGE

My eldest son accompanied me to the Pukaki fly-in and left me with a number of amazing photos, most taken through the Pipistrel's lexan side panels. Instead of degrading the photos, the hint of reflection seems to make them more aviation "flavoured". The resolution, dynamic range of light captured and the astonishing depth of focus is all the more amazing in that the photos are taken by a cell phone.

The heading photo was taken on the return Pukaki to Timaru leg. Low cloud in the eastern passes encouraged us to fly down the Waitaki river catchment then up the coast. This photo has Omarama and its airfield (below our starboard wing tip) and the Ahariri river flowing into lake Benmore. The photo was taken from ZK-YPM, a Pipistrel Sinus.

It was a day that started with fog. By 1000hrs local time it had lifted to stratiform cloud at about 800 ft AGL. We set off from Timaru expecting to find broken patches inland while being prepared to return if unsuccessful.

The photos show us climbing through a large hole north west of Geraldine in the area of the Arari Gorge and then

climbing along the ridges of Mt Peel into the Fairlie basin.

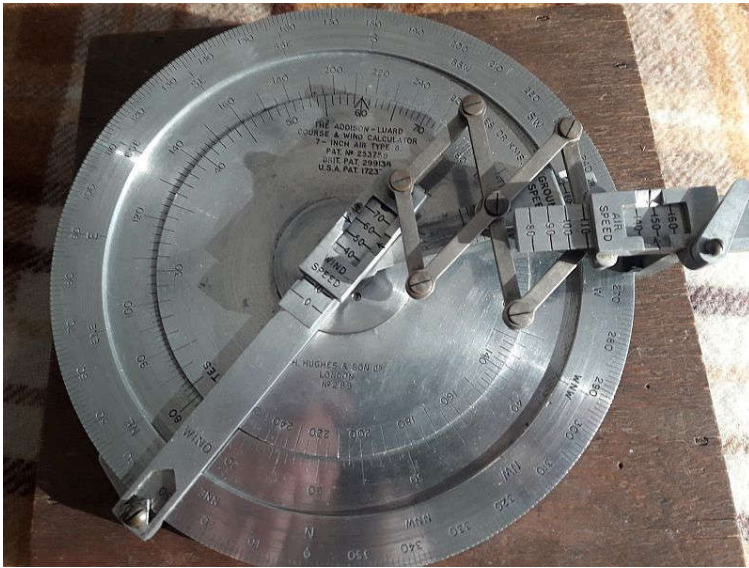
Ed: Thanks for superb photos, Warwick and Glen!



WHAT IS IT?

WORDS: BRIAN GREENWOOD

PHOTO: NIGEL MALHAM



Club member **Nigel Malham** sent through some photos of this interesting piece of history, it belongs to one of his workmate's grandfather.

Henry Hughes was a British manufacturer of quality nautical and aviation navigation devices. The company was founded in 1828 to produce chronographic and scientific instruments.

This device is an Addison Luard 7" Course & Wind calculator. A slightly larger (and, I suspect, earlier) version of this very device was standard fitting to Lancaster Bombers in WW2. A very cool piece of memorabilia. Thanks, Nigel!

Below, our very talented CFI and Operations Manager, **Stewart Bufton** is rewarded for some unknown kindness, when **Chris Pennell** snapped this photo.



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BITS AND BOBS

Ruth Allanson, of Ruth's Tecnam Aircraft Sales & Service, is looking for aircraft to sell (Advanced LSA or microlight), contact her at info@riversfaris.co.nz.

The late John Smith's Mapua collection of Warbirds is being distributed in accordance with his wishes. The P-51D is going to Brendon Deere's organisation at Ohakea to be restored to flying condition.

The P-40 "Gloria Lyons" and the Mosquito are going to the Otago Aviation Heritage Centre.

As the costs of transporting these precious aircraft are high, the OAHC have set up a givealittle page: <https://givealittle.co.nz/cause/warbird-rescue>

As you can see from the committee minutes there's a project underway to start some more landscaping around the club grounds. Part of this might involve a working bee, if this comes to pass please contribute some time to help out. It's a great way to forge new friendships and help the club out if you can. Please don't just leave it to the committee.

COMMITTEE NOTES SEPTEMBER 2020

- Reminder sent to all overdue accounts, reminder in CRACRAP that the club does NOT operate credit accounts. Procedure to stop pilots flying if account not zero or in credit under consideration.
- Safety of operations at NZRT with helicopters discussed
- TT on Aircraft: RGA 2698, RGB 2044, RGC 385
- Compressor purchased
- New engine for RGB in stock
- Repaired gearbox to be refitted to RGB
- Club Emergency Response to be reviewed for new contacts etc.
- New multi-coloured Tee Shirts selling well
- Wireless network connection in Hangar 1 still unreliable, project underway to run cable
- Upgraded/new lights for outside clubhouse/hanger in progress
- Clubhouse signage updated
- Doug Anderson kindly donating lawn mower
- Suggestion to extend BBQ deck area, landscaping proposals under consideration
- Flying scholarship for local high schools proposed
- Purchasing a club Ute for fuel runs and visitor use being researched, previous proposal being re-checked
- Giggle advertising trial ended
- Airfield Advisory Committee news: Doug Anderson, Scott James, and Buzz Harvey are our representatives. Trees being planted along river side of the deer fence to help reduce dust. Landing Fees discussions opened with AAC.
- Extremely generous offer of paving material to club accepted, and 10 years free club membership for the 3 family members offered in return.

The 2020 VNC Charts have just been released – don't forget to update yours before they come into effect on November 5th. I haven't seen them yet, but there are quite a few changes this year.

September 15th
was the 80th
Anniversary of
the Battle of
Britain, here's
my favourite
Spitfire photo
to
commemorate
the day!
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Greenwood



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which includes membership details,
costs, and joining forms. Membership
enrols you for the magazine, too.

UPCOMING EVENTS

September 27th – Clay Pigeon Shooting at the
Oxford Strip. Fly-in if weather permits, otherwise
drive it!

RSVP to Dave McPherson please, 027 223 1870

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:

Lindsay Whelan
Lee Kar Yung

Please make our new friends feel
welcome.

CONGRATULATIONS

Barry Steven Mowat, Adv Local
Clive Tidball, Intermediate

NEXT NEWSLETTER

Contributions for the next edition
are requested, publishing deadline
November 11th, 2020 ("ish").

Next publishing date approx. September-
November 30th, 2020

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

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