

AGC Weekly News

The weekly newsletter of the Auckland Gliding Club at Drury, Auckland

From the CFI

The Springfield comp is held every two years as an Enterprise format. This means you are scored on an OLC distance basis, with handicap and bonus turn points.



Easterly blowing over the Benmore Range

Saturday practice day was a no flying day but Sunday looked good with blue thermals to 9000'. The task was a series of turn points with the top one at Hanmer West and the bottom one at Mount Hut. Additional points were on offer for flying over an airfield, or getting to within 10kms of Mount Tapuaenuku on the inland Kaikoura's.



Returning from Mount Hutt – easterly blowing up against the hills

Several pilots, including Pat, made it to Lake Station (Nelson Lakes) and back, while some went to Tapueanuku. Terry Delore made both. Matt and I made it to Hanmer West and down to Mount Hut for a 327km flight, while other manage 500k plus flights. Everyone was very happy with the day.

Unfortunately, the weather turned on Monday with low climbs. Ross and Matt managed to get onto the Torlesse Range but had to give it a miss soon after.



Cruising south off the Craigieburn Range and Lake Colerige

Tuesday bought the long-awaited wave, but it seemed impossible to get out of the rotor and into the wave proper. At one point Matt and I got tipped totally nose down with the stick forward waiting for the pull out.

When Matt heard Terry calling overhead the field and descending, he suggested we also return, which we duly did. The longest flight of the day was 80km, mostly going round the Springfield Ridge and behind the Benmore Range.

Ross and Kevin are on today, Wednesday, but the conditions don't look much better than yesterday.

Check out Soaring Spot for all the tasks and results.

https://www.soaringspot.com/en_gb/springfield-soaring-championship-2024/

And Weglide for tracks. <https://www.weglide.org/>

Anton Lawrence
CFI Auckland Gliding Club
021 280 188

NOTICE: 2024 North Island Akro Fest at Mercer

All AGC pilots/members are notified of the 2024 North Island Akro Fest around Mercer Aerodrome, hosted by the NZ Aerobatic Club, on Saturday 7th and Sunday 8th of December...this coming weekend.

Note - Mercer airfield remains open for all operators and visitors, however please be vigilant of aerobatic aircraft operating between the Quarry and immediately south of Mercer airfield (the Aerobatic Box) between 500' and 4500', avoid overhead rejoins and plan to fly a wider circuit for

either vector.

Check for a daily NOTAM confirming whether the event is proceeding and the hours of expected operation.

For more information, contact me on 021 0629929.

Cheers,
Grant Benns - Organiser / NZ Aerobatic Club

MERCER MBZ CAUTION

Sat/Sun Dec 7th/8th

2024 North Island Akro Fest Mercer Airport

**AVOID MERCER AIRPORT AND
THE CIRCUIT AREA**

**Extensive aerobatic flying will be taking place immediately
to the SOUTH (within the Mercer Airport circuit).**

WEATHER DEPENDANT! CHECK NOTAMS

Listen out on 119.20 for aerobatic traffic

If you need to join to land at
Mercer Airport, fly a **wide circuit** →
clear of the **Aerobatic Box** →



Contact Contest Director, Grant Benns,
for more details:

grantbenns2014@gmail.com
0210629929



**North Island
Akro Fest
2024**
Mercer Airport
awards
The Langley Marshall Trophy

Climate outlook - from the NZ Met Service

Climate Drivers - Decreasing risk for a weak La Nina

An active Southern Ocean brought strongly negative (active) Southern Annular Mode (SAM) last month, driving frequent frontal passages across West Coast, Fiordland and Southland, and this uptick is likely to persist into the first week of December.

A passage of Madden-Julian Oscillation (MJO) is possible across the Southwest Pacific around mid-December, with an increased risk for tropical or subtropical cyclones north of the country. These bring the potential for significant rainfall events across the North Island if they spread southwards towards New Zealand, and with the tropical cyclone season now in effect, this will be an event to watch.

El Nino Southern Oscillation (ENSO) remains neutral, and while there is about a 1-in-3 chance for a short-lived and weak event to develop later this month into early 2025, this risk has been steadily decreasing. However, a negative Indian Ocean Dipole (IOD) event persists through much of December, which in itself can mimic La Nina conditions and heighten the risk for any northerly low to affect northern New Zealand. While the signals are not fully in alignment for development north of the country, the risk is picked to increase from about mid-month.

December 2024 Outlook – Wet across western South Island, drier elsewhere

Summer begins on a warm note for eastern regions across the country, with cities from Gisborne down to Oamaru expected to reach into the upper 20s to low 30s over the next few days as gusty northwesterly winds spread northwards. A few rainy days from Westland to Southland, tipping rainfall above average there, while the rest

of New Zealand trends much drier under prevailing high pressure. Another weather system brings a short burst of rain across southern parts of the country to end the week.

Next week sees an unsettled start with cooler temperatures over parts of the South Island, but conditions improve markedly by mid-week as another ridge slides across New Zealand. An overall dry week again for central and northern parts of the country, trending wetter about the West Coast. A windy westerly flow is likely to accompany these weather systems which could again push temperatures near or above 30C in downwind regions. It will become important to watch for any low development north of the country later in the week with the MJO passage, and any system that develops and approaches the country could bring a risk of boom-or-bust rain event into week three, along with warmer and more humid weather.

The third week of December sees the trend for a wetter west coast of the South Island persist, while high pressure moves east of the country. This may allow a progression of fronts to cross over the country with near-average rainfall elsewhere. Temperatures are likely to trend slightly warmer than average, but a northerly low could tip the scale much warmer.

The final week of the year brings little change to the weather pattern, with hints of more settled weather possible as we head into the new year. While weather models continue picking overall dry conditions across eastern South Island and most of the North Island, the start of the tropical cyclone season means conditions north of New Zealand will become increasingly favourable for low development, and it takes only one northerly low to bring a notable rain event and push totals towards the wetter end of the scale.

Gerard's videos

The ultimate glider adventure race



<https://youtu.be/2PAfglNRxpQ?si=U95-ze2olhZPbsPt>

Although not strictly a glider, this Cub does have a TOST tailhook. Many club members may be interested in this account of the building of the Carbon Cub EX2, which I always said was going to be completed by "Christmas". Well, Christmas arrived early this year.

Russell

This was to be a retirement project upon finishing commercial flying in November 2016. The Carbon Cub EX2 (CCK1865) is one of those 51% "fast build" kits which is supposed to take around 1000hrs to complete. Of course, that's the marketing pledge and reality was a lot different, even though Covid intervened for a couple of those years.

I chose to receive the whole kit in one container rather than the three stages normally chosen by those closer to Yakima, Washington state, where the manufacturer *CubCrafters* is located. <https://cubcrafters.com/carboncub/ex>

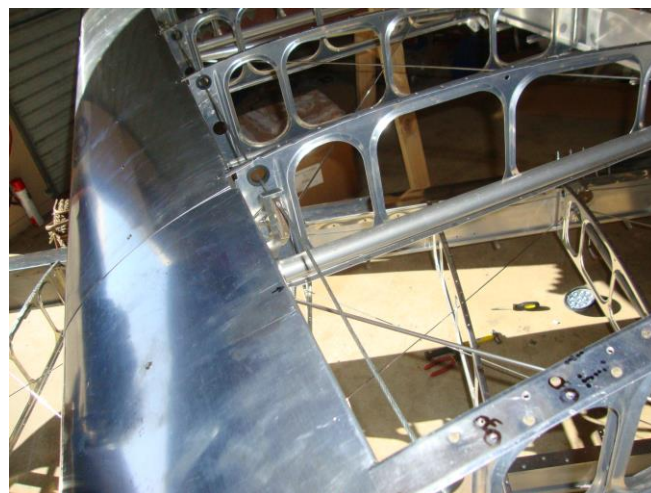
The manuals are well written, but amendments following initial publication are difficult to procure and this was the reason for many of my queries to the "builder forum" when issues cropped up. This popular builder forum together with company support was extensively used to obtain answers when required.



The fuselage was delivered in the classic Piper SuperCub form, with no welding to be done. The wings were fabricated at home in the garage, using jigs I had made locally, to address the same jig designs passed around builders in the US.

The aircraft is popular amongst the back country crowd with more than 1000 certified and kit builds, now delivered since 2012. The kit has benefited

from the extensive use of CNC technology in the ribs and the surrounding carbon fibre mouldings. The result is an empty weight that is full 300lbs lighter than the classic Piper SuperCub. During this time, my supervisor was fellow glider pilot and AirNZ LAME, colleague Marc Morley, who endeavoured to impart to me some basic engineering knowledge.



At the point of initial fabrication, the project was removed to ICEA at Ardmore where the expert skills of Darren Pennell were used to install the wiring looms, which make up the modern version of a classic 1950's aircraft. The installation of an Advanced Flight Systems (AFS5500) PFD houses all the flying instruments in one unit, as well as switches for strobes, pitot heat, Angle of Attack (AoA) and landing light. Also, it was easy to choose to have GPS and ADS-B incorporated at this point, while I waited out Covid with very little input from myself. Many will have walked past the fuselage in the ICEA hangar during this period. Significantly, there are no analogue instruments or electric fuel pumps in this aircraft.

The engine is a Titan CC340 uncertified powerplant, which is little different from its Lycoming O-360 equivalent. However, the increased compression ratio is noticeable when trying the first starts. Although rated at 180Hp for takeoff, the maximum continuous rating is considerably less at 80Hp for cruise, with the 80 x 50 Catto propellor at around 2100rpm. The engine required several trial fittings, until I achieved the correct combination of load bearing.

The wiring loom is massive compared to its former basic model, to support the extra modern refinements such as EFB's, ELT's and mobile applications, powered from USB ports.

In keeping with modern trends, I opted for the Lightspeed Plasma III ignition system, which contributed to the wiring project. There are backup batteries to support both the electronic ignition and PFD, which needed to be replaced during the build as time elongated.



Following the completion of the wiring and electronics, the local towing company was engaged to move the fuselage to the Gliding Club at Drury, where I was still CFI. There I embarked upon the fabric covering, where the wings had also migrated from home. Although a first-time builder, I found the Poly Fiber fabric process straightforward and the use of the spray painting facilities at the club extended my lack of experience in this skill, which then covered the carbon fibre stringers and longerons. I chose to re-site the ADHARS attitude source from the fuselage baggage area to the near wing, and the magnetic flux valve was also moved to the outer wingtip, far away from the wiring loom influence

which was now extensive.

The now populated eye level circuit breaker on the left header panel caused some concern, as the unusual overhead flap lever connection to the trailing edge pivot flap was too close to the rear of the left header panel, and the dozen circuit breaker terminals. I had to replace the entire left header panel in a trial-and-error exercise, until we were satisfied we had physical clearance.

The rigging process was pretty simplistic, I thought, but it posed no issues during the first part of the flight testing. The electric trim is another departure from the earlier model and this motor seems to lack a certain amount of torque, but responds adequately to trimming demands. Peter McCarty provided his oversight during the rigging and the checking of the nylon fuel lines which had shown up issues for many builders.

An Experimental CofA was obtained on 6 November and following my Cat 4 test pilot approval, the first flight took place early on 23 November. The advice from experienced Cub test pilot Bill Henwood was that the Carbon Cub was very light in the tail, which was born out in the short flight overhead the Drury airfield. The stall and approach speed determination was much as expected. The Lightspeed ignition system offers no "mag drop" difference between the channels, with the right side backup system being provided by the hotwired standby battery bus. The rest of the 40 experimental hours close to home will now take some application.



A lot of early gliding history is presently being researched for a book, to be produced in mid-1925, to celebrate the History of NZ Gliding.

Here is one such gem from a 1935 newspaper on how Zogling (Learner) primary glider pilots were taught to fly.



Zogling



Above & below: Primaries in South Africa, referred to as "skull splitters" due to the front post.



The beginners start on a gentle slope. Each in turn is strapped into the pilot's seat of a "Zogling." Six of his companions hold on to the tail. Eight or 10 run down the hillside pulling on the two ropes, each of 840 thin rubber strands, made fast to the nose of the machine. When the pilot feels that the tension is strong enough he shouts, "Los!" The human anchor behind lets go; the taut ropes fall away from the glider, and the pupil is catapulted into the air.

He is never more than 20 feet above the ground, and is off the earth at first for five or 10 seconds only, but he learns the elements of landing, and though I saw some of them come down with tremendous bumps they did themselves no harm.

The second week they go on steeper slopes. At the end of the month they are soaring about like seagulls.

When the sun is shining an upward current of warm air rises from places where the earth has been cooled by an overhanging cumulus cloud or by recent rain. The soaring pilot seeks out these spots and is carried up with the draught. He finds pieces of paper or butterflies ascending with him as he goes. Birds, too, take advantage of these aerial escalators, and pay no attention to the machine that is climbing the sky beside them.

Even within the clouds the rising current continues. At San Paulo in Brazil, Heinrich Dittmar, a German airman, who holds the world's record, once got into a huge cumulus and mounted to a height of 13,300 feet.

These machines land at 20 miles an hour, which is no more than the speed of a bicycle. That is what makes gliding comparatively safe.

Member's Ads



PW5 ZK-GAT

Ready to fly. Approx 650 hours flying with 211 starts. Two Price Options:

Option 1: \$12,000 Glider, covered trailer, basic instruments (ASI, Altimeter, Mechanical Vario, Radio (Becker), Compass)

Option 2 (Preferred): \$25,000 The Works (Everything you need to fly in airspace, competitions, records)

Option 1 plus; Trig Transponder, ADSB In Out, S100 Vario, easy one-man-rig trailer fittings, parachute,

For negotiation separately: Oxygen system (2 tanks and EDS Mt High regulator). Ready but not previously installed. Ph Murray 0275 875 438



Drury Hangars x 2 (adjacent hangar spaces, access via southern door access in hangar # 1).

The 2 hangars are for sale (together or contemporaneously) and are available after the sale of PW-5 ZK-GAT.

Hangar # 1 is the one pictured behind the PW-5 canopy.

Ph Murray 0275 875 43

This edition of the newsletter was compiled by Peter Wooley