

AGC Weekly News

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

From the CFI



Congratulations once again to Angelie who took her first passengers for a flight last weekend, Mum and Dad. Also congratulations to Craig Chapman who has completed his XCP conversion from his British certificate.

Attached in this newsletter is an arial plan of the field showing restricted flying areas. Some newer pilots have not been completely aware of this, so

this should clear up any ambiguity. Also attached is the Aerodrome Chart from the AIP.

As a registered airfield, local and visiting pilots don't expect surprises.

Anton Lawrence
CFI Auckland Gliding Club
021 280 188



The red area which extends the length of the strip and 1km to the west, is to be used for circuit flying only below 1500 feet, and not below 2000 feet directly over the strip if the winch is on the field. No thermalling or crossing the strip is permitted below these heights.

The blue areas are as above except thermalling in this area off the top of a winch launch is permitted as long as you are going up, otherwise join the circuit.

A safety buffer of at least 300 metres should be allowed for, shown by the green line.

These areas provide 500 foot separation from gliders, tow planes or other aircraft entering the circuit below 1000 feet.

These areas are not to show where your exact circuit should be, that will be determined by arrival height, wind direction and strength.

In the event of an emergency you should make your approach as required to land safely and make appropriate radio calls.

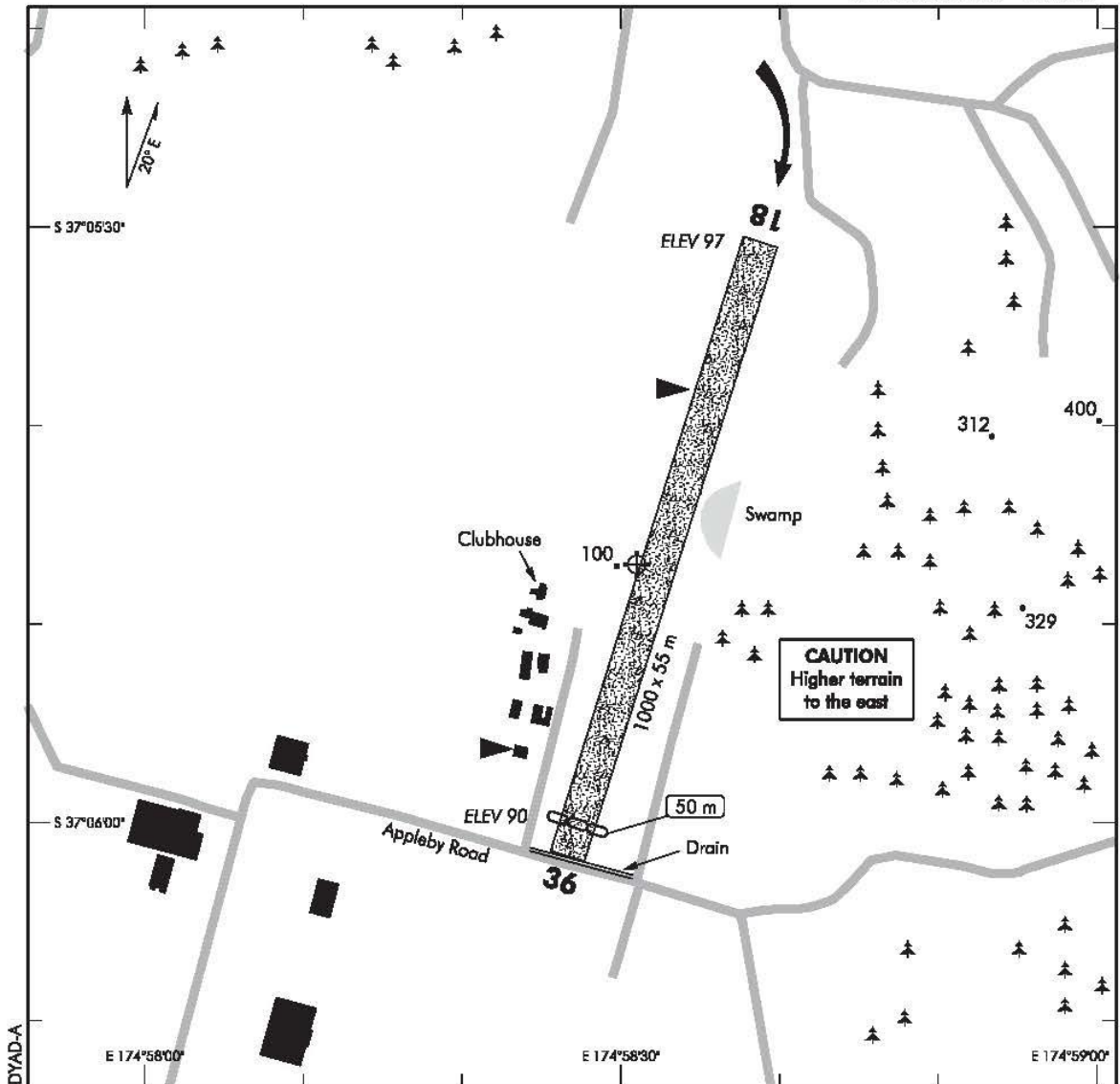
Drury Field Circuit Area

ELEV 100
NZDY

NON-CERTIFICATED

**DRURY
AERODROME**

UNATTENDED: 134.45



1. Circuit direction: RWY 18 — Right hand
RWY 36 — Left hand
Gliders begin their circuits at 700 ft AGL.
2. Take-off operations not permitted before 0800 LMT or after 1800 LMT.
3. Intensive gliding activities taking place — particularly during weekends, public holidays and Wednesdays.
4. **CAUTION:** Glider winch launching — operations may take place at any time up to 2500 ft AMSL. Refer Danger Area D235.
5. **CAUTION:** Significant hump in RWY 18/36 abeam clubhouse restricts runway end visibility. Radio equipped winch rope retrieval vehicles may not be visible at opposite runway ends.
6. During winter months and after periods of heavy rain — airfield surface will be soft.
7. Caution advised during period of winds from the easterly quarter.

S 37 05 47 E 174 58 31*

Effective: 25 FEB 21

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**DRURY
AERODROME**

Non-Certificated aerodrome 1.3 NM E of Drury township

DRURY

NZDY

NON-CERTIFICATED

OPERATIONAL DATA**RWY**

RWY	SFC	Strength	Gp	Slope	ASDA	Take-off distance			LDG DIST
						1:20	1:30	1:40	
18	Gr		8	0.21D		1000			1000
36	Gr		8	0.21U		1000			950

LIGHTING

Nil

FACILITIES

Toilets, showers, bunk rooms.

1st aid kit and fire extinguisher in club rooms and in mobile caravan abeam runway in use.**SUPPLEMENTARY**Operator: Auckland Gliding Club
Tel (09) 294 8881 or A/H 027 694 2942Email: info@glidingauckland.co.nz

Available only with prior approval of the operator

Landing fees — Nil

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DRURY
OPERATIONAL DATA

From Ambivalence To A Record Flight What A Difference A Couple Of Hours Can Make

Murray Wardell

Our summer instructors had already parted NZ and Thursday 21st March, 2024 was a day that I hadn't planned to go flying on. For some reason I looked at the RASP prediction at about 11:00 and it looked better than the blue sky was indicating – average for a summer day, but good for this time of year. Drury airfield is just down the road for me, so it's easy to make last minute plans to go flying, especially when your glider is already rigged right by your hangar door. My main motivation was to relieve some frustration and get a half descent flight in before the soaring season was completely over and feel like I had at least achieved something over the season. I was still unconvinced about the day when the tow-pilot (whom I'll call Dion – [formally known on twitter]) arrived. I went through the motions of intended flight and got the glider down to the grid thinking it would be a 50:50 call on whether it was worth more than just a local flight. In making the final call, I noticed that the cumulus clouds had popped and the sky looked better than I had seen it for a long time. Perhaps this might be the day, well into Autumn, that would make up for the mediocre summer that it had been for me.

Long story short - (see below for detail) I declared a 100Km Triangle task (The Mercer Triangle), not because it's the best 100Km Triangle Task in NZ – but because it's local, handy and offers an aero-tow retrieve if you land out at Mercer airfield. My speed around this course ended up being good enough to be ratified as a new NZ D13 record for a speed record of 61.86Km/hr around a 100Km triangle.

[People with short attention span should have already give up at this point].

This flight might not have been the fastest of times (61.85 Km/hr) on a world stage – certainly less than I would have liked, (much better than my previous record) and as some consolation it was 10 Km/hr faster than what I did with another pilot in the club's Duo Discus QQ the day before.

Part of the recommendation for a record claim is that it is accompanied by a narration from the pilot. There is no specific guideline for what a pilot narration should contain so I took it to be to:

- *Provide ALL the relevant information to the O.O. (Official Observer) and to the Awards Officer relating to:*
 - *preparation for the flight,*
 - *declaration,*
 - *documentation / process / evidence to support the claim*
 - *any particular notifications regarding the flight.*
 - *make it easy for the O.O. / Awards Officer to ratify the flight by*
 - *removing any doubt / questions about the validity of the flight.*
 - *make the flight open for any future post analysis scrutiny.*

There is also no requirement to make either the igc file or the pilot narration public – indeed, such information is mostly held closely by the pilot as personal intellectual “local hard-earned knowledge” property. In the spirit of Klaus Ohlmann, “Here's how I did it. I'll even help you

to do better than what I can do”- I have decided to share both of these to encourage others to consider attempting record flights and to see the planning and preparation that goes behind these flights.

Pilot Narration for Murray Wardell for NZ Record D13 General Speed around a 100Km FAI Triangle on Thursday 21st March, 2024 in PW-5 ZK-GAT from Drury.

Pilot: Murray Wardell

Glider: PW-5 ZK-GAT from Drury in standard configuration adhering to 13.5 metre wingspan criteria.

Pre-flight tasks:

- Emailed O.O. (Official Observer) of my flight intention / declaration for the day. Detailing:
 - Primary IGC Flight Recorder LXNav S100 (Serial # Q0A) sealed as a permanent fixture.
 - Secondary IGC Flight Recorder Oudie Serial # 3PP (bracket mounted).
- Entered EXACTLY THE SAME Declaration into Primary and Secondary F.R. as per email to O.O.
- Briefed tow pilot that this is a record attempt and to note release height and position.

- Ensured take-off details were logged in the daily timesheet.
- Turn on tracking device(s) - in this case, specifically, ensure Btraced was switched on.

Note : track can be seen from the historical records on <https://gliding.net.nz/tracking> and [an igc file of this flight can be found on OLC for this day under my name]

Notes to Official Observer to check / confirm:

- Original IGC File LX-Nav S100 (Primary Flight Recorder) File 43LVQ0A1.igc validates using FAI IGC validation program.
- Original IGC File Oudie IGC (Secondary Flight Recorder) File 2024-03-21-NAV-3PP-01.igc validates using FAI IGC validation program.
- Both Flight Recorders (S100 & Oudie) show ENL (Engine Noise Level) above trigger level. This is due to cockpit noise / vibration as the PW-5 does NOT have an engine.
- Flight Recorder Calibration Certificates:
 - LXNav S100 SN # Q0A (33706) Calibration Certificate 2021,07,16
 - Maximum variation over the flight altitude range 0 – 4,500ft is 2 metres
 - Oudie IGC SN#3PP(4813) Calibration Certificate 2022,07,20
 - Maximum variation over the flight altitude range 0 – 4,500ft is 3 metres

Weather on the day:

Light variable winds with cloud base approximately 5000ft - this is an estimate as I did not reach cloud base during flight. This is a cloud base higher than normal for the Drury area and the sky looked active, hence the record attempt.

Task: (meets requirement for a FAI 28% Triangle over 100Km)

- Task distance 103.1 Km
- Start Point, 1st Turn Point 2nd Turn Point 3rd Turn Point, Finish Point
- NZDY ROSE ORTC DIMM NZDY
- Shortest leg ORTC – DIMM is 30Km - which is greater than 28% for FAI Triangle.
-

103.1km
FAI Triangle

Thornton Bay
Whakatete Bay

Task Properties

Task: Observation Zone Options Start points Share

Type: Racing task

No start before: 00:00:00 Task time: 00:00:00

Gate interval: 0 Gate count: 0

	Name	Longitude	Latitude	Distance	Radius
Start	NZDY Drury AF	S37°06.033'	E174°58.483'		
1.Point	ROSE Rosehill Swir	S37°04.620'	E174°55.994'	4.5km	305°
2.Point	ORTC OrtonCorner	S37°23.200'	E175°01.383'	35.3km	167°
3.Point	DIMM Dimmock	S37°14.403'	E175°18.418'	30.0km	57°
Finish	NZDY Drury AF	S37°06.033'	E174°58.483'	33.3km	298°

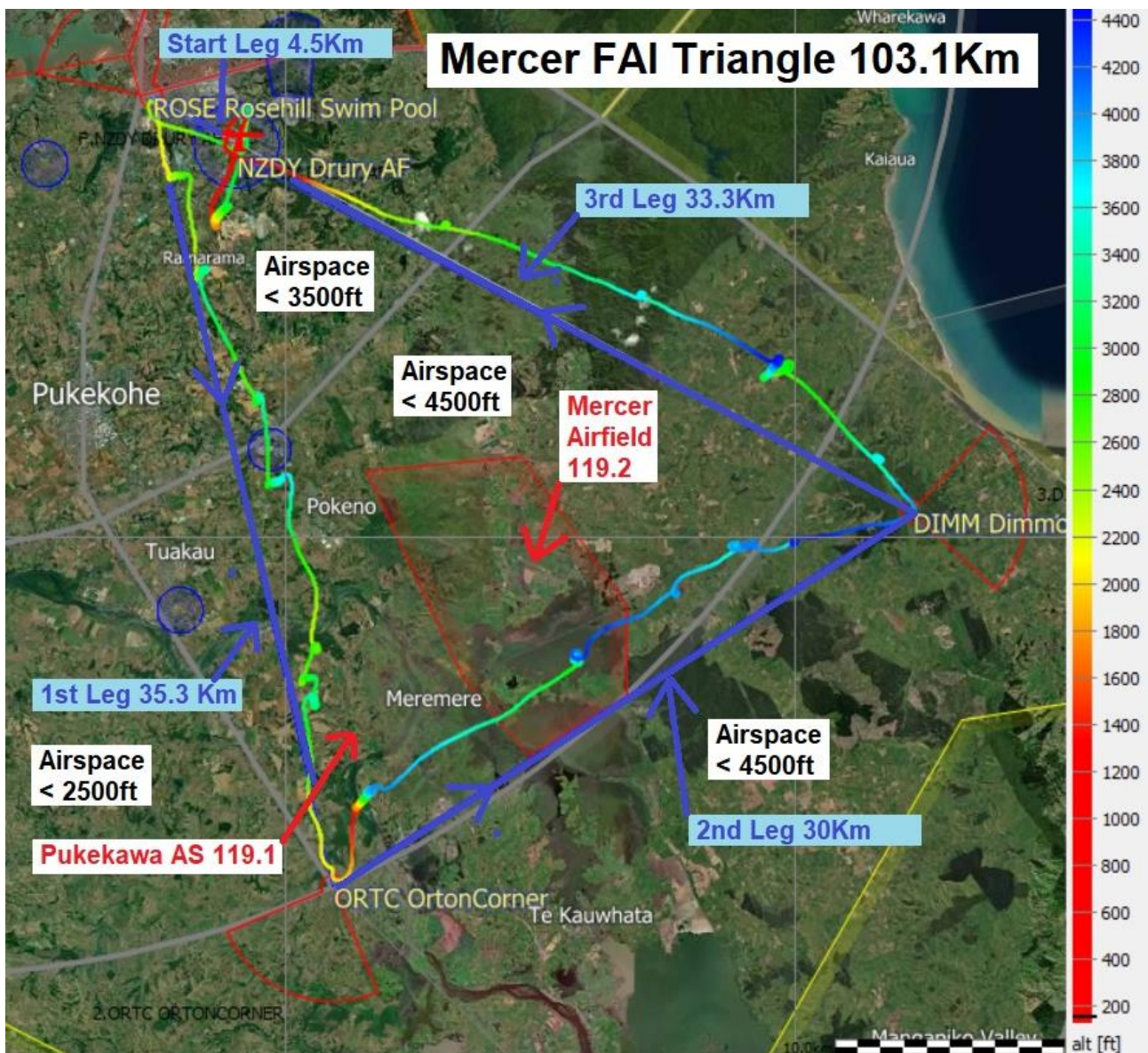
IGC Flight Recorder Declaration

Total Dist 103.1Km

OK Cancel

Primary Instrument LX Nav S100.			Secondary Instrument Oudie IGC.		Alt difference Primary - Secondary
Location	Time	Alt (Max) at this point	Alt at this point		
Start NZDY	14:14:05	3077	3059		18
ROSE TP 1	14:16:18	2408	2393		15
ORTC TP 2	14:51:39	2037	2033		4
DIMM TP 3	15:21:25	4078	4080		-2
Finish NZDY	15:51	757	760		-3

Flight Compliance with Sporting Code:



- Triangle starts on one of the legs with the Start Point and Finish Point the same.
- Start crosses the start / finish line (0.5Km radius) in direction towards first turn point.
- Turn Points:
 - 1st turn point ROSE achieved with 500m cylinder claim only – this was to avoid breaching airspace restriction,
 - 1 Km distance deduction
 - 2nd turn point ORTC achieved with 500m cylinder claim only – this was to avoid breaching airspace restriction,
 - 1 Km distance deduction
 - 3rd turn point achieved with sector rounding – there were no airspace considerations
 - 0 Km distance deduction
- Task distance (corrected) = 103.1 Km – 2Km (distance deduction) = 101.1 Km
- Finish crosses the start / finish line (0.5Km radius) from direction of last turn point,
- Loss of height over task = (938m – 232m) = 706m (max allowable = 1000m),
- No Airspace requests were made nor required,
- No Airspace violations were made.
- Flight completed clear of cloud.
- Flight completed during daylight hours.

Release on aero-tow at 1500ft.

Start NZDY 3077ft @ 14:04:05.

Straight glide on Start Leg (4.5Km) to 1st Turn Point.

To 1st Turn Point (ROSE): (500m cylinder fix at 2408ft at 14:16:18)

A favourable energy line enabled a fairly direct route to the 2nd turn point with 3 thermals before the airspace Lower Level changed from 3500ft to 4500ft around the Bombay area.

Thermalled to 3438ft just north of Bombay Hills with Lower Level airspace up to 3500ft.

Crossed airspace boundary to 4500ft Lower Level airspace. Flew directly overhead Bombay Quarry D 228 (Danger Zone SFC – 1800ft) with minimum height of 2800ft. Changed frequency to 119.2 for Mercer Traffic listening watch, but not expecting to go into the MBZ on this leg of the flight.

Climbed to 3300ft (unable to climb efficiently up to just below 4500ft) and commenced 8Km glide in the blue to the 2nd Turn Point (ORTC). Observed Pukekawa AS (elevation 200ft ASL) off to the east (1.7Km away) and 3 surrounding paddocks as land out options if needed.

2nd Turn Point (ORTC): 500m cylinder fix at 2037ft @ 14:51:39 staying east of the 2500ft airspace line.

Moderate sink up to, around and away from the 2nd turn point saw me dropping out of the sky in a big blue hole. At 1500ft I had a 7 Km glide to Pukekawa AS (200ft ASL) for runway 30 as my land out option and switched to **119.1** for the mandatory broadcast I might have to make before landing there. However, I never made this call as I found a blue thermal at 1300ft on the western edge of the Waikato River bank and took a 4-6kt average climb to 4000ft. Switched frequency to **119.2** and halfway along the next 10km glide towards the 3rd and final turn point, I made a radio call, “Mercer Traffic, Glider Golf Alpha Tango entering the Mercer MBZ 3 nautical miles to the south west, Tree Thousand, Tree Hundred feet, tracking Quarry Lake [*Visual Reporting Point*] “: Five kilometres on and 1Km to the south of the old cable-way overhead the northern part of the Whangamarino Wetlands, I stopped again in the blue (the PW-5 couldn’t keep up with the rate that the clouds were dissipating at) for the best thermal of the day, gaining 1000ft in the last 3 turns.

A final radio call, ““Mercer Traffic, Glider Golf Alpha Tango, 2 nautical miles to the south east, Four Thousand, One Hundred feet, tracking Quarry Lake and leaving the MBZ”. Maintained listening watch on 119.2.

3rd Turn Point (DIMM): sector rounding at 4078ft at 15:21:25.

It’s hard to know when I was on a comfortable actual final glide. At one stage I had 4400ft with 25km to the finish. This would normally be enough even in the PW-5, but with heavy sink of

8-10kts at times and 1000ft hills to clear back at Drury, I stopped to gain an extra 200ft just to make sure the PW-5 would get home.

Altitude was down to 2522ft when I crossed back into the Lower Level 3500ft airspace at Drury on my final glide. Switched to Drury frequency 134.45.

Once a comfortable easy glide back to Drury was confirmed visually, I steadily increased speed to 100 + knots to cross the finish line in the direction from the last turn point directly overhead for

Finish (NZDY): at 757ft at 15:51:05.

Joined down-wind at Drury for right hand circuit onto runway 18 and made an uneventful landing. Looked up at the sky and thought – “Damn – Sky looks even better now with a little bit of westerly wind and cloud streeting – will have to leave it until Next Time!”.

On my own analysis, this flight meets the criteria in every way for a new NZ D13 General 100Km Triangle Speed Record of 61.86 Km/hr – subject to approval by Official Observer Glyn Jackson 09/085 and ratification by GNZ Awards Officer (Bruno Tagliapietra).

Reminder!

A reminder that there will be a Working Bee on 4 May, beginning at 10am - your valued participation will help to spread the workload.





Photo by Sean Franke

In a past article, I wrote about leaving a thermal and accelerating while in the lift. That way when you encounter the sink you are already at or near cruise speed and get through the sink quickly. That is great when you are alone. However, let's think about what happens when we have company.

Everything Changes in a Gaggle

When you exit it is considered bad form to cut through the core of the thermal, dive onto the glider below you, and cut-off the guy that was next to you. Actually, it is considered such bad form they may ask you to leave, assuming you didn't have to use the parachute to complete your thermal exit.

Gaggles can be more efficient in finding the core and spreading out to find a thermal. Not only must we have our heads on a swivel we need to remember that the last mid-air at a WGC (that I remember) was not someone in a large gaggle

but 3 guys on course. Two were focused on the one circling and they collided watching the one guy thermalling. I watched one midair where gelcoat was traded as the two pilots pulled up and one turned directly into the other glider, denting the bottom of the wing.

Entering a Gaggle

Entry is like merging onto a crowded freeway with a bunch of A\$\$holes. Nobody is going to let you in, sometimes they physically can't because the spacing is already worked out. As you approach a gaggle you need to look for an opening. Look for the other glider merging. Slow down before you merge and be at thermal speed as you slide in. You cannot hit the lift pull hard and directly into the gaggle. It is too easy to misjudge.

Leaving a Gaggle

When you decide to leave, you leave on heading assuming you can safely exit when you want to. Then slowly lower the nose once the wings are

level then build up your speed without major nose changes to not collide with the glider that may have left under you. There are a few seconds where you have to accept it could have been done more efficiently but compromised safety.

You also have to fly a little faster as the gaggle gets busier. A little faster gives you more control and a little farther away from stall speed. You cannot make every small correction for centering because that might cause a mid-air. Quite often

the gaggle can still be quicker on course than a solo glider even with these inefficiencies.

Garret Willat holds a flight instructor rating with over 8000 hours in sailplanes. His parents have owned Sky Sailing Inc. since 1979. He started instructing the day after his 18th birthday. Since then, Garret has represented the US Junior team in 2003 and 2005. He graduated from Embry-Riddle with a bachelor's degree in Professional Aeronautics. Garret represented the US Open Class team in 2008 and 2010 and the Club Class team in 2014. Garret has won 3 US National Championships.

What the NZ Met Service says

Climate Drivers – El Nino heading for the exit, and Tropical Cyclone season draws to a close

Key oceanic markers are now below El Nino thresholds, and as we head towards neutral territory in the central and eastern tropical Pacific Ocean the 23-24 event is drawing to a close. However, it will still have a diminishing say on our weather maps through the rest of Autumn, with the atmosphere and weather often lagging the oceans. This means our enhanced southwest flows of March and April are still expected to be with us for a little while longer. Neutral El Nino Southern Oscillation (ENSO) conditions are expected through Winter, and this would typically see increased variability on our weather maps as shorter-term climate drivers take precedence.

There is a growing signal that La Nina will develop into early Spring. Any effects from La Nina are unlikely to be seen until the summer and will be very dependent on its strength, which remains far from certain.

The end of April also marks the end of the Southwest Pacific Tropical Cyclone Season. While Tropical Cyclones have been known to form in May in the past, this year the risk is considered Very Low to Low. The MetService Daily Tropical Cyclone Bulletin has now finished until November, however, the team continues to monitor the region and will provide updates if needed.

May 2024 Outlook – Woollies required, brollies semi-retired!

May 2023 was the warmest May on record in New Zealand as northerly airmasses plagued the weather maps, with a widespread marine heatwave in the waters surrounding the country. Fast-forward one year, and one El Nino event, and we are looking at a much-changed picture in the waters around New Zealand, with cool

anomalies emerging right around the country and in the Southern Ocean to our south.

With the weather maps expected to continue to sing off the Nino hymn sheet for a couple more months yet (albeit increasingly out of tune!) enhanced south-westerly winds are still likely to continue with us throughout May, often dragging in some very cold air from the south. With this air moving over much cooler seas this May than last, cool snaps are likely to have some notable bite to them over the final month of Autumn, making for a very different feel to this time last year.

This will especially be the case over the opening fortnight of May where very cold southerly winds will be persistent, as high pressure sits slow-moving west of the South Island. While the odd front will move through, it is likely that our opening cold front on May 1st will bring the best of any rainfall for the majority of the country in the first half of the month. This front saw some very heavy falls for Wellington in particular, where 40-80mm fell in just 12 hours.

Lots of dry Autumnal days with crisp sunshine are expected to develop during these opening two weeks, especially across the bulk of South Island, with only really Southland and Clutha tapping into more frequent southerly showers. Whenever winds are brisker, especially on those exposed coasts, woolly hats will be essential!

The second half of May sees the axis of highest-pressure shift northwards into the northern Tasman Sea, opening the door to increased volatility and more regular frontal visitors from the west or southwest. This is your standard Autumnal fare, with two or three fronts a week moving quickly across the country, generally fading as they move over the North Island. A few of these fronts could pack a punch in terms of rainfall, especially for western and southern areas of New Zealand, so whilst the umbrellas might

gather some dust early in May, it'll pay to keep them handy from mid-month. With the increased volatility, temperatures should bounce around a

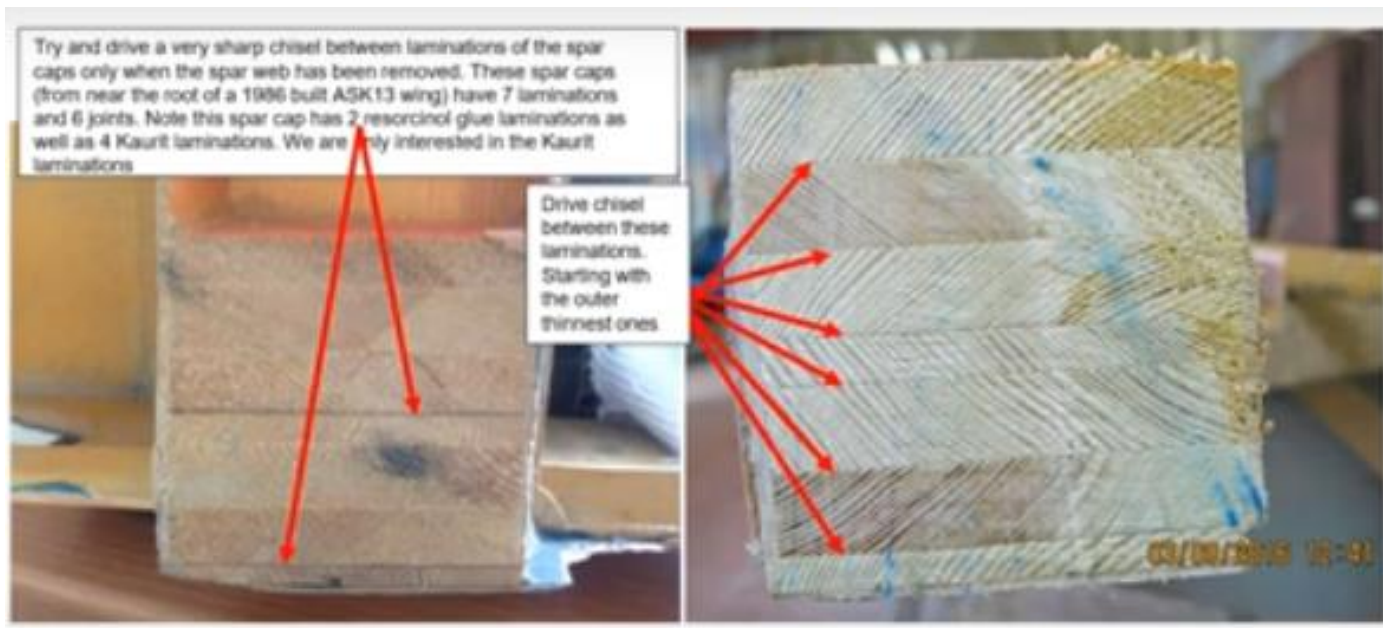
bit more with some milder weather a possibility at times.

Member's Ads

H36 Dimona ZK-GPH for sale or syndication. Julian Elder is interested in either creating a syndicate or selling his Dimona GPH. It recently has had significant restorative work carried out. For any technical stuff contact Ian Williams (021980194 ian@agcon.co.nz or sales information contact Julian 0276924114 julian@elder.net.nz

Glue failure inspection in sailplanes

Submitted by Gerard



https://youtu.be/d_v6dvqNPTI?si=KPyUeEylc0_9VerF

Glider Record Attempt: First 1000 km FAI Triangle in Colorado With Detailed Commentary

Submitted by Gerard



<https://youtu.be/WYOmEKOtZUs?si=rirr4ExvT5Giqjcm>

This edition of the newsletter was compiled by Peter Wooley – wooleypeter@gmail.com – 021 170 2009
