TORQUE

Official bulletin of the
Christchurch Model
Aero Club Inc.

March 2025

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Frontispiece: Ian Harvey's over 10 year old ASK21 enjoyed some great aerotow soaring at Lake Station, St. Arnaud this month.

NOTE: The opinions expressed in this bulletin are not necessarily those of the CMAC committee.

Annual General Meeting

CMAC AGM

WHEN: **Wednesday 5th March 2025—7:30pm**

WHERE: The Merivale Papanui Club rooms 205 Condell Ave

WHY: Please come to the AGM, we need members support to complete the AGM and set the objectives for the coming year.

The AGM includes the prize giving and awards.

Please note any Notice of Motion or nominations for the committee must be advise to the secretary 7 days before the AGM.

There will be time for socialising after the AGM and Tea/Coffee and savouries.

Graham Moffat—CMAC Secretary

Lake Station Aerotow, St Arnaud

21 -24 February 2025 - report and photos from Ian Harvey

There was a lot of flying happening at Lake Station, but not from model aircraft, but from bumble bees!.. Hundreds of these fearless, inquisitive creatures plagued us all weekend, with only a couple of reported stings. As for model flying, a few flights were logged on Friday, a few more on Saturday, with a blustery Westerly coming across the runway kept most fliers grounded, even though it was sunny and not too cold.

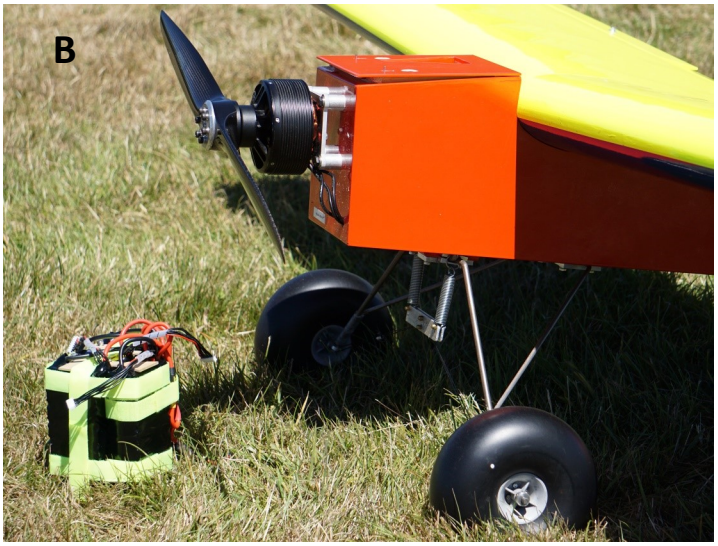
Most of the pilots and some of the gliders at Lake station meeting. Ian Harvey, Bevan Allan, Peter Collier, Sam Laidlaw, Ami Kennedy, Bruce Lissant-Clayton, Ricki Bruce, Peter Deacon, Geoff Lilley and Peter van Tuel.

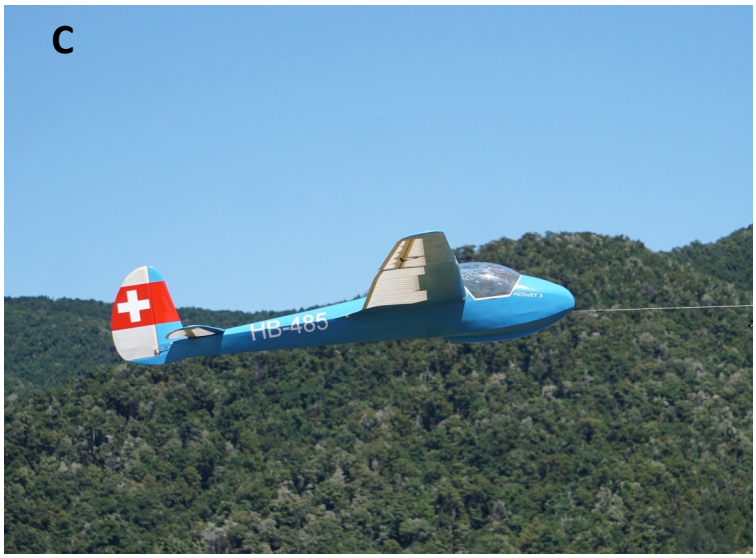
However, Sunday and Monday were near perfect.

It was an unusual meeting in that there were almost as many tow planes as gliders. Peter Deacon had an Edge 500 and a Piper Pawnee; Dave Griffin an E-Piper Cub, Greg Clarkson a new E-powered Greenley SDD, Bevan Allan an IC Greenley, and Ricki Bruce his large Robin Remo 180. These pilots also had a range of tow and e-powered gliders. There were a number of day-tripper pilots from Nelson and Blenheim mostly flying electric-launch gliders. Despite the difficult Friday and Saturday conditions, the abundance of good thermal lift on the Sunday made the trip by those from Christchurch, Waimate, Dunedin and even Invercargill well forth while. The locals from Nelson and Blenheim who largely made the weekend happen (especially Peter Deacon and Sam Laidlaw) can be well pleased with the meeting, despite us missing any fliers from the North Island. Dave Griffin organised the entries and acted as CD for the weekend. The ability to park up caravans and motorhomes on the site was a plus for some. Moreover, good local St Arnaud accommodation and eating facilities made for an enjoyable long weekend. The accompanying photos (and cover photo) hopefully capture the spirit of the event and venue.

Typical St Arnaud background as Sam Laidlaw brings his 5m ASW15 (from Airworld Germany) in for a perfect landing. Crucifix tail is a neat but unusual set-up.

A: Peter France's Fox handled the windy conditions better than most on Saturday B: Tow pilot Bevan Allan, glider pilot Ian Harvey and observer Sam Laidlaw in action. C: Ricki Bruce's Ka 6 on finals. D: Another Ricki model—9m ASG29 on tow behind his lovely Robin Remo180 (E)





A: Greg Clarkson's Greenley proved an effective new addition to the tow-plane stocks. B: Note the huge NiCad battery pack which fits under the forward hatch. C: Dave Griffin's Mosway makes an impressive sight in the air, as does Ricki Bruce's monster KA 6 (D). Sam Laidlaw (L) and Ami Kennedy from Nelson pose with their 4m LS8 and smaller ASW28 respectively. They logged an impressive number of flights between them.

A: Peter Deacon's 1/3 scale 6m ASH31 (ex Neil Moss) on finals. B: Sam Laidlaw's LS8 on tow on a dolly. C: Peter van Teul readies his 4m Ventus for a tow; Bruce Lissant - Clayton in the background with is OD electric model. D: Geoff Lilley does not have an aerotow model, so spent many an hour enjoying flying his NAN Explorer Q4. E: Greg Clarkson (with red clip board) checks off each task as Dave Griffin puts Ricki Bruce 9m large model through required registration manoeuvres.

Aeronautical Forensics

The John Dew mysteries

I pranged my faithful old Bixler recently. When things go tits up, we generally want to know why. The usual suspect is a “radio glitch", followed by a faulty servo, a linkage failure or, god forfend, pilot error. This is the short story long.

Long ago in a galaxy far, far away© I bought my first 2.4 GHz transmitter. It came from Hobby King, and I naively thought that it would work straight out of the box. In those days (actually only a few years ago) I didn't know anything about modes, or servo reversing, or mixing, or dual rates, or model memory, or binding, or range tests, or... The big realisation was that programming required a PC. I then had to download a program, and connect the trainer port via a USB-to-serial converter which was neither supplied nor documented. I sorted it all out by trial and error, and in the end it proved to be an adequate and reliable transmitter.

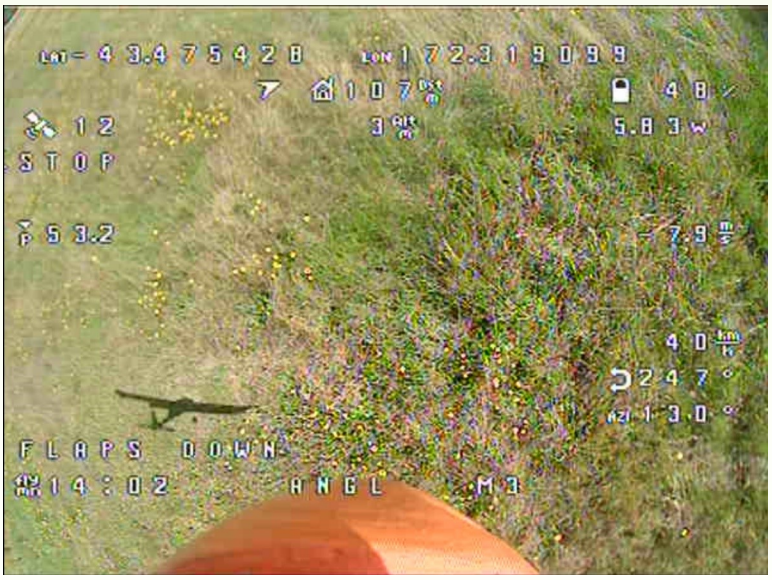
The first problem appeared when I acquired my next plane. The HK transmitter had only one model memory, and for a short while I re-programmed it in the field for each aircraft. I solved this by the simple expedient of buying a second transmitter.

However, things came to a head when I ventured into Flight Controllers. Suddenly I needed an absolute minimum of 4 switches on the Tx, so a new one was on the shopping list. After extensive research (i.e. surfing the web) I hit upon the FrSky brand, which seemed to provide good bang for your buck. The most expensive model, the Taranis 9D, had more bells and whistles than you could shake a stick at (*translation: it had lots of switches*) but there was a much cheaper QX7 version that sacrificed only two of the switches. I duly ordered a QX7.

If the Hobby King learning curve was steep, this thing was a cliff. I will spare you the gory details, but the QX7 and I eventually established as uneasy truce, and I have even gone so far as to buy a second one. However, another ‘however’ was looming. A Flight Controller is just a specialised computer, and as new versions of its software are released, it can do new tricks. I was keen to try out these tricks, but with a distinct feeling of déjà vu I faced a new, old problem - not enough switches! The FrSky radio protocol has 15 usable RC channels, but there are only 12 sticks, switches and knobs on the QX7. I cursed the marketing division of FrSky, who had played the old trick of creating an entry level model by removing a few features (2 switches in this case) and dropping the price.

I was damned if I was going to buy the premium model just to get 2 more switches, so I thought of a quick and dirty solution. I moved the flaps onto the unused top end of one knob range, which freed up a whole 3-position switch. I felt pleased at this neat rearrangement - what could possibly go wrong?

On the next flight something went very wrong. I was flying line-of-sight (not using goggles) and was trying out a new autonomous feature. Then I switched back to manual control but I was obviously not paying enough attention, because the Bixler proceeded to go into a spiral dive and I didn't have enough height to recover. I was told by sympathetic colleagues that the damage was repairable, but I was cross with myself and wanted to know what had happened. Now the advantage of having a camera on your model is that it provides forensic evidence of cock-ups, just like a black box flight recorder (or even better in some cases). On reviewing the video, the cause was blatantly obvious - I had deployed the flaps at low airspeed and low power, leading to a fatal tip stall. If the on-screen flap indicator were not proof enough, the camera caught the shadow of the plane just before impact. If you look carefully you can see the extended flaps. The universe was clearly in Ironic Mode, as the shadow was right behind the “Flaps Down” on-screen message.



0.15 seconds before impact. You can see the flaps in the plane's shadow.

So why had I lowered the flaps in mid-flight? That was the almost inevitable result of moving the flaps from the switch to the knob, and then forgetting all about it. The lesson is clear: work out where you want things to be and keep them there. Especially your car keys.

Free Flight Report - from Lynn Rodway

There were only a couple of Sunday mornings suitable for FF in February due to weather conditions. John Beresford has got a good handle on how to make a P30 go well. Currently he is using 1/16" rubber which gives him a longer motor run. The model he is using is a well put together kit from the USA.

NDC P30
John 120 96 120 = 336
Lynn 50 54 90 = 194

NDC Nostalgia Power
Lynn 81 123 78 = 282

NDC Vintage Power
Lynn 55 180 - = 235

Club RC Tomboy
Geoff 550 693 524 = 1767
Lynn 540 569 520 = 1629
Stew 146 157 - = 303

The second flight of Lynn's Vintage Power model DT'd in the control line paddock. Another 30 seconds it would have been in the Waimakariri River. Thanks to all who helped him find it.

Vintage Report *from Allan Knox*

We flew Vintage RC early in the month on Wednesday when light winds and sunshine were predicted and that's what we got. Lynn and I turned up early and we made a start on 1/2A Texaco. The key to this event is a Cox Babbee that runs properly and consistently. That's always a challenge but on this occasion we both were blessed with good runs. Lynn was running the strongest and getting to great heights with his Atomiser but his runs were shorter needing a longer glide to make 8 minutes. His model was getting very hard to see at the top. I flew Skipper with a lower power motor turning a big prop and running longer but to a lower altitude. We both did well but Lynn was unlucky to catch some sink and just missed one of his 8 minutes but he made all 3 of his 20 point circle landings so posted a good score. I made my 3 maxes and went on to post a 14 minute 28 sec flyoff in lift. It's nice to have a big score for the Leader Board at the start of the year.

Next up was Classical E Duration. Electric duration models are now power unlimited so my Pulteri has a new battery, motor and prop. It goes great and posted 3 x 5 minute Maxes in the good air followed by a 10 minutes flyoff Max. I even did another few more minutes on a second flyoff for insurance.

The air did start to change at about 11.30 when I flew E Rubber Texaco. It clouded over and got cool and flat with an Easterly change. It didn't go too well with 2 shortish flights, still I recorded a result and that is all points for the year's total.

Rebuilding the Ian Henry Clipper.

I have been a bit slack and need to get on with this. I have finished the wing structure though. Because I have cut the wing in two for transport convenience, I needed wing joiners to plug into the new carbon spar tubes. These joiners have been made from carbon tows pulled through off cuts of the carbon tubes that have been cut and jigged to the required dihedral angle. Once the epoxy and carbon is cured the tubes are filed then separated leaving the new solid joiners. Wax and PVA parting agents are used in the tubes to allow this separation. Next up is the tailplane that needs an elevator, likewise the fin and rudder.

Vintage Results

VIntage 1/2A Texaco

Lynn Rodway, Atomiser, 1941 age bonus 9

Flt 1 9:49 Landing 20 = 500 (Max). Flt2 7:43 Landing 20 Age 9 = 492, Flt3 10:41 Landing 20 = 500 (Max) . Total = 1492

Allan Knox, Skipper, 1949 age bonus 1

Flt 1 9:22 Landing 20 = 500 (Max). Flt2 8:30 Landing 20 Age 9 = 500 (Max), Flt3 8:22 Landing 20 = 500 (Max) . Flyoff Flt 14.28 Landing 20 Age bonus 1 = 889. Total = 2389

Classical E Duration

Allan Knox Pulteri 1961

Flt 1 5:40 = 300 (Max), Flt2 5:47 = 300(Max), Flt3 5:50 = 300 (max), Flyoff 1 10:52 = 600 (Max), Flyoff 2 1:59 = 115 Total = 1619

Vintage E Rubber Texaco

Allan Knox, Senior Dart, 1937 Age Bonus 13

Flt 1 11:25 landing 0 age 13 = 698, Flt2 13 min 34 landing 20 age 13 =847. Total =1545

Out at the Willows:

"***Where have all the pine trees gone, Long time passing" More site improvements!***

A: Graham Moffat's Sea Fury has new decals (plus CGI undercarriage doors). B: Bruce Bonner's foam King Fisher has an attractive decal finish. C: John Dew's Ranger 2400 flies past sporting its modified undercarriage, pretty pink wing LE and array of electronic wizardry.

More from the Willows

A: ***Add your own caption for this photo of John Dew with his Ranger 2400.***

B: ***Geoff Pullen sent this photo of 2 year old granddaughter Riley who spent a morning with him and Lynn at the free flight tree . He sure is starting 'em young.***

Soaring Report

From Allan Knox

We flew over two Saturday mornings, the first and last weekend of the month. The weather has been variable but when it was good - it has been spectacular. The last weekend in the month produced masses of lift in a light southerly with wind swings around the compass pointing to the thermals. Times were excellent and Anton, Ken and Allan had great fun. Other fliers were away at the Lake Station aerotow or still on holiday so entries were a bit lighter than usual. It was nice to see Mike Johnson out again having a go with his Radian. Mike has been a club member for 40 years he tells me.

There was an interesting mix of less flown events including F5K for electric DLG style models flying a variety of tasks. F5Ks are launch to about 60m in 7 seconds controlled by an ALES switch which also logs actual launch height so bonus/penalty points can be applied depending on height achieved. It seems complicated but it works fine and is quite strategic. Only Allan flew this one but Peter, John and Dave also have models for the class.

eRES for 2m wooden models is fairly new but popular as Radians may be used to fly it too. Only 3 flew and scores were down as the lift departed late morning when most flew.

Our best supported event was ALES 123 (Class N) won by Peter with some fine precise flying in good conditions. The next 5 contestants were not far behind. Conceived originally as a class that launched to just 400 feet to keep under CAA limits, it doesn't give much height to search out lift and get away for the 6 minute flight.

X5J Unlimited is not flown often. It was developed as an event that doesn't need an ALES switch. You can launch as high as you like but your climb time comes off your flight time and you have to land inside the 10 minute window or lose your landing points. It's popular with some as you can restart your motor in flight if needs be to get your flight time. Ian thought he had won this one easily with his beautiful new 4m model NAN Q4 but was pipped at a later date by Dave with superior landing scores.

The removal of the pines to the NE of the strip has opened up the area and reduced tree induced turbulence from that direction. I think we will use the strip much more for Soaring in the prevailing NE wind direction.

Soaring Results

ALES 123

Feb-25		Round 1				Round 2				Round 3			
Pilot	Total	Min	Sec	Landing	R1 Score	Min	Sec	Landing	R2 Score	Time	Sec	Landing	R3 Score
Peter France	1213	6	0	50	410	5	57	45	402	5	56	45	401
Anton Nikoloff	1210	6	1	45	404	5	58	45	403	6	2	45	403
Ian Harvey	1204	5	57	50	407	6	1	40	399	6	2	40	398
Dave Griffin	1194	5	58	45	403	5	57	30	387	5	59	45	404
Keith Elliott	1179	5	55	25	380	6	5	40	395	5	59	45	404
Allan Knox	1159	5	58	25	383	6	4	30	386	6	0	30	390
Ken McMillan	1037	6	2	25	383	5	48	30	378	4	11	25	276
Mike Johnson	633	3	14	0	194	2	17	0	137	5	2	0	302

Unlimited Feb 25

Feb-25		Round 1				Round 2				Round 3				Round 4			
Pilot	Total	Min	Sec	Landing	R1 Score	Min	Sec	Landing	R2 Score	Min	Sec	Landing	R3 Score	Min	Sec	Landing	R4 Score
Dave Griffin	2501	9	36	50	626	9	39	45	624	9	39	50	629	9	27	45	622
Ian Harvey	2433	9	34	20	594	9	39	40	619	9	35	30	605	9	35	40	615
Allan Knox	2329	9	27	0	567	9	18	0	558	9	7	45	592	9	29	45	614
Keith Elliott	2325	9	28	50	618	9	10	0	550	9	32	20	592	9	25	0	565
Ken McMillan	2008	9	27	50	617	4	49	40	329	9	27	40	607	7	35	0	455

eRES

Feb-24		Round 1				Round 2				Round 3				Round 4			
Pilot	Total	Min	Sec	Landing	R1 Score	Min	Sec	Landing	R2 Score	Min	Sec	Landing	R3 Score	Min	Sec	Landing	R4 Score
Allan Knox	1080	2	46	55	171	4	22	80	292	4	49	50	289	5	3	75	328
Anton Nikoloff	945	3	31	75	236	3	31	90	251	4	28	90	308	2	30	0	150
Keith Elliott	786	3	34	75	239	5	5	80	335	2	42	97	212				0

F5K (It's not as complicated as it looks!)

Allan Knox

Task A 1, 2, 3, 4 min flights. 15.7, 120 (-3), 180 (30), 240(-12) seconds and (Penalties) = 510
Task B Longest flight, Max is 5 Mins. 5 min 1 sec (-6) = 300 – 6 – 294
Task C All up last down , Max 4 mins. 4 min 1 sec (+20) = 220, 4 min 4 secs (+0) = 240, 4 Min 2 secs (+4) = 244 = Total 744
Task E Poker Nominated target. All in . 3 min 56 (-22) = 212
TOTAL = 1760.7

NDC events for March 2025

Mar/24	113	VINT	FF Classic Glider Duration
Mar/24	114	VINT	FF Vintage Rubber Duration
Mar/24	115	VINT	RC Vintage IC Duration
Mar/24	116	VINT	RC Vintage E Duration
Mar/24	117	VINT	RC Classical E Duration
Mar/24	118	VINT	RC Classical E Texaco
Mar/24	214	FF	Indoor Hand Launch Glider
Mar/24	215	FF	Open Rubber
Mar/24	216	FF	Kiwi Power
Mar/24	217	FF	Kennedy Precision
Mar/24	218	FF	Aggregate
Mar/24	219	FF	Tip Launch Glider
Mar/24	220	FF	Hanger Rat
Mar/24	408	SOAR	Thermal H (2 Metre Glider)
Mar/24	409	SOAR	F3K Tasks B,D,G,H only (total raw scores)
Mar/24	410	SOAR	ALES 200 Class M (Scoring per 3.13.7)
Mar/24	411	SOAR	ALES Radian Class P

Mar/24	309	CL	F2C Team Race
Mar/24	310	CL	FAI Team Race (Classic FAI & F2F combined)
Mar/24	311	CL	Open Goodyear Team Race
Mar/24	312	CL	Slow Goodyear Team Race
Mar/24	313	CL	Class B Team Race
Mar/24	314	CL	Percentage Speed
Mar/24	315	CL	Classic 'A' Team Race
Mar/24	316	CL	Classic 'B Team Race
March/24	505	PYLON	Q500 sport
March/24	506	PYLON	FAI F3E
March/24	507	PYLON	FAI F3D
March/24	508	PYLON	FAI F3T
March/24	509	PYLON	FAI F3R