

# TORQUE

August 2025

Official Bulletin of the  
Christchurch Model Aero  
Club Inc.







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**Frontispiece: Dave Jackson releases his hand-launch glider at the recent free flight competition at The Willows**

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

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**Prez Sez** Since the Torque Editor was not convinced that I visited the Smithsonian Air and Space Museum in Washington DC, here are two photographs to prove that I was actually there.

Happy Flying - **Grahame Hart**

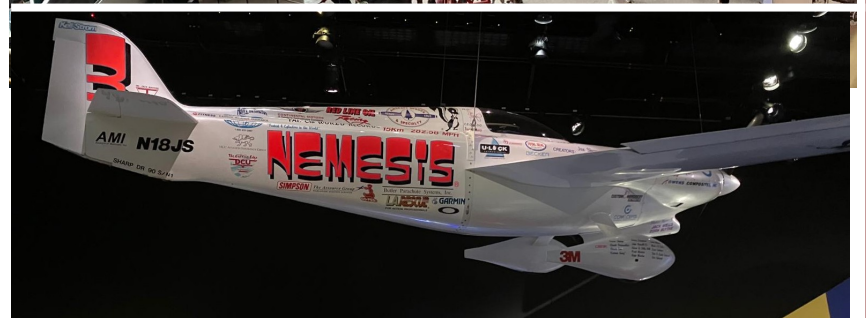
### Editorial Notes:

*In the upper photograph, how many planes can you, the CMAC members, identify? Of the 5, I think I can do 4.*

*In the lower photograph, I obtained the following information from Wikipedia.*

*The Sharp DR90 Nemesis was a sports F1 class racer, dominating the class between 1991 and 1999. Some statistics: 6.187m wing span; 236kg empty weight; 19L fuel capacity; Max speed—467 km/hr.*

*Grahame mentions that he would like to build a model of the Nemesis one day.*





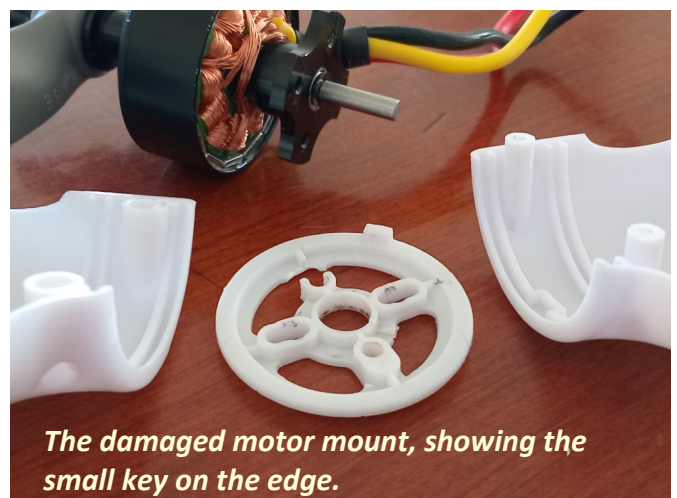
## FIRESTREAK *and other musings from John Dew*

Tim kept us waiting for quite a while with the promise of a new model in the works, but it finally turned up a couple of weeks ago. We all agreed that the name was a bit naff. “Firestreak”. Hmm. However, the model itself is decidedly non-naff. Built from scratch to a plan in RCM&E, it spans 1676mm and features traditional balsa / ply construction and veneered foam wings with carbon spars and strip reinforcement. It is a restrained design, carefully built and finished, with a glass fibre cowl straight out of “The Repair Shop”. The flawless covering is a rather more controversial Barbie Pink – personally I love it, although it might be hard to see against a sunset.



The Firestreak is billed as a “warmliner”. I had to look up that bit. Apparently a “hotliner” is a fast sailplane with an electric motor, capable of near-vertical climb, so the Firestreak is a de-tuned version of same. You could have fooled me. The maiden flight consisted of the usual die-straight climb out, followed by a series of trademark aerobatics and a doozy of a landing. Tim’s comment was that it was not as fast as he was expecting. Given that the motor is a “25” rating, which translates to around 400 watts, it was no slouch. It will be very interesting to see how it performs in sailplane mode.

I was flying my Ranger the other day, and for a number of messy reasons I suddenly needed to do a dead stick landing, and the old phrase came to mind; “running out of airspeed, altitude and ideas simultaneously”. In the event I ran out of runway as well and put the plane down rather too fast. When you don’t want to say “crash” you use the euphemism “heavy landing”, so that’s what I shall call it. The plane cartwheeled, but the airframe seemed remarkable unaffected, the only obvious sign of damage being a bent undercarriage. It was only later we noticed that the motor shaft wasn’t pointing exactly fore and aft. Since the Ranger has a pusher prop, the motor is reasonably well protected, but clearly something was amiss.





Back home I dismantled the power pod, expecting to find a damaged motor, but the motor was fine. The trouble turned out to be the mounting plate which supported the motor. The plate, in the form of a moulded plastic disc, had distorted and partially broken. This wasn't particularly surprising as it seemed a rather fragile way of mounting a 300 watt motor. As someone observed, it could have been designed as a sacrificial component, intended to save the motor. That would have been OK if the part was readily available, but surprise, surprise, I cannot find a source. I could replace the motor and be back flying within a couple of days, but paradoxically I can't buy a bit of plastic.

This led me to ponder on ways of making a replacement. There are several options:

- a) sculpt it from unobtainium
- b) hand craft it from plastic sheet
- c) fabricate it from metal
- d) 3D print it.

These are mostly doable, but the devil is in the detail. The original part has a small key moulded into its periphery as a lock against rotation. This makes fabrication difficult. 3D printing is an option, but it is a critical component and as I have discovered the hard way, the result would not be as strong as die-moulded nylon.

What to do? Dear reader, you will have to wait for next month's edition of Torque to find out What Happened Next.

And finally, an eagle-eyed reader of the June edition of Torque may have noticed that, at the end, our esteemed editor had tucked in a little cartoon (in the da Vinci sense). It depicted some random guy wearing FPV goggles, with a caption suggesting that the pilot may have nodded off. I felt that a response was called for. Given that Ian has had some rather costly mishaps recently, I was looking for a less expensive way of getting him airborne. My artistic skills are no match for Ian's, so I turned to ChatGPT for help, and with a bit of prompting, the AI and I came up with a possible solution



## FOR SALE:

I have a Cirrus sr22t glow powered plane that I'm thinking of selling. The plane will come with fuel, starter motor etc.

If anyone is interested could they contact me. 0274280507 or

[richard.j.w.matheson@gmail.com](mailto:richard.j.w.matheson@gmail.com)





# Editorial stuff

The editor's response to John Dew's submission—with his tacit imprimatur!



I thought I would throw together a CLFFG for the SI FF champs on the weekend since I was venturing out to snap some photos of the event for Torque. It was constructed from scraps in my balsa box and bits around the workshop. Suffice to say, it glided but not off the end of a catapult launch. One retired professional described it as an “aeronautical abomination”. A bit harsh, but probably true. Total modification by increasing boom length, some wing polyhedral and re-positioning on the stabiliser MAY enable it to soar.



It was interesting to see the free flight activity at the South Island champs, with a few travelling to the event from afar. On Saturday, they were centred on the strip, but few models actually landed in the mown grass. Most headed down towards Thompsons Road in the moderate northerly wind. This then necessitated a trek through the rank ground cover to retrieve the models. I think there would have been a few tired legs after the weekend. With the contest re-locating to the FF tree on the Sunday would have meant easier walking through the fire-regrowth. Report, results and photos elsewhere in Torque

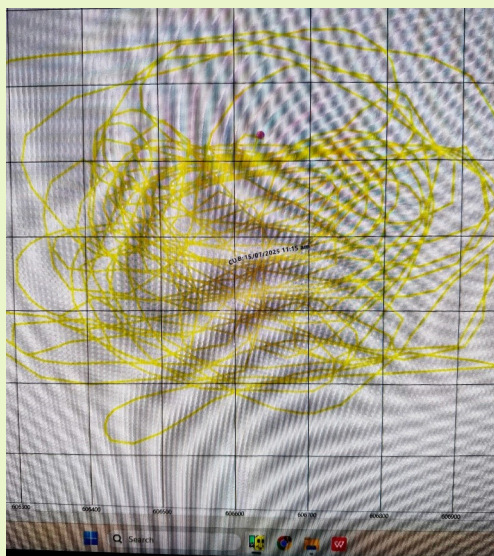
## My Big GPS Flight as described by Ken McMillan

I did some measurements on Tuesday 15th July at the field.

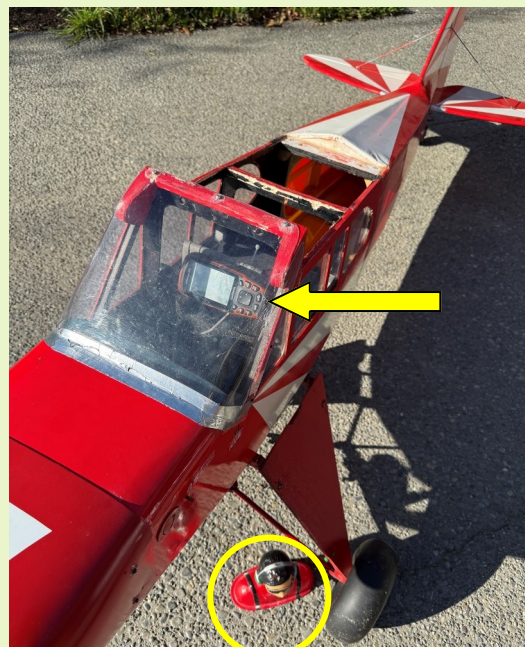
I flew my big red Piper Cub with a handheld GPS secured inside the airframe.

I managed to achieve these totals:

- 41minute flight time
- 254 meters max altitude
- 84 kph max speed
- 25 kph average speed
- 35.5 km's distance covered
- Used 375cc of fuel



**Right: The spaghetti flight pattern and the GPS equipment (arrow) that ousted the pilot (circle)**





# South Island Free Flight Champs

***Bill Long reports on this event held over the weekend of 26 and 27 July (Photos—Editor)***

Kay and I arrived at the field on Saturday to a frost and a very light breeze that slowly picked up during the day leading to the usual fine weather. We flew by the container and by 10 am there were about 20 cars around it.

The purpose of the contest was to have a lot of fun, to relax, to talk and to fly our planes. This was definitely achieved in my opinion.

Saturday was spent with most people flying their various gliders including John Harte who was helping his lovely 2 grandchildren to fly. I found it great catching up with John and Paddy.



***Roy Gunner watches his FF Tomboy make a leisurely climb into the gentle northerly breeze***



***Left: John Harte and German visitor Janek pose with Craig's ex Pau Lagan A2 glider.  
Above: The aircraft on circle tow***



## SI FF Champs continued

Sunday we arrived to meet up with Lynn and Stew wisely setting up in the clubs free flight area. The weather started out with a light frost a much lighter breeze than Saturday and it stayed that way all day with the air being great to fly in.

There were about 10 cars by 10 am.

Thanks to John Dowling, Robert Moore and Dave Jackson for their presence that was much appreciated.

Thanks to everyone that competed as they made the event a total success.

Also many thanks to the club for closing the field and allowing us to use it for the full weekend



**A:** Craig King shows off his hand-launch glider skills

**B:** Organiser Bill Long, Arthur Alloway and Paddy Harte took a keen interest on proceedings.

**C:** Stu Grant makes desperate adjustments in an attempt to get his glider to glide.

**D:** Allan Knox and Dave Jackson discuss HLG performances



## SI FF Champs Results—collated by Julius Long

### Event: Hand, Tip and Catapult Launch Glider

CATAPULT GLIDER										
Entrant		Type	Round 1	Round 2	Round 3	Round 4	Round 5	Round 6	Total	C o C
Craig	King	Vintage	53	60	55	60	43	50	321	**
Allan	Knox	Vintage	37	30	36	33	37	32	205	
Craig	King	Open	38	36	34	46	20	27	201	25
Lynn	Rodway	Open	28	23	37	24	20	37	169	20
Stewart	Morse	Open	18	21	17	16	12	13	97	15
Robert	Moore	Open	11	19	16	12	19	16	93	12
Sakura	Harte	Open	24	16	16	12	13		81	10
John	Harte	Open	11	17					28	9

### Event: Hand Launch Glider

Entrant		Type	Round 1	Round 2	Round 3	Round 4	Round 5	Round 6	Total	C o C
Dave	Jackson	Open	32	38	30	25	31	44	200	25
Allan	Knox	Open	12	14	17	20	58	26	147	20

\*\*Not part of official results, as not an official event on the program (as advised by Contest Director)

### Event: Kennedy Precision

Entrant		Round 1	Round 2	Round 3	Total	C o C
John	Beresford	88	103	117	308	25
Stewart	Morse	110	80	73	263	20
Lynn	Rodway	75	118	52	245	15
Craig	King	80	98	64	242	12
Allan	Knox	49	97	77	223	10

### Event: P30

Entrant		Round 1	Round 2	Round 3	Total	C o C
Dave	Jackson	119	112	120	351	25
Bill	Long	120	79	110	309	20
John	Beresford	90	120	85	295	15
Lynn	Rodway	95	84	72	251	12
Kay	Long	112	-	-	112	10
Stewart	Morse	31	41	39	111	9

### Event: Open Combined

Entrant		Round 1	Round 2	Round 3	Total	C o C
Allan	Knox	171	180	180	531	25
Craig	King	138	180	180	498	20
Dave	Jackson	138	127	115	380	15
Lyn	Rodway	72	79	74	225	12
John	Beresford	38	81	59	178	10



### Event: Champion of Champions

Entrant		HL Glider	CL Glider	Open	Kennedy	P30	TOTAL	Place
Dave	Jackson	25		15		25	65	1
Lynn	Rodway		20	12	15	12	59	2
Craig	King		25	20	12		57	3
Allan	Knox	20		25	10		55	4
John	Beresford			10	25	15	50	5
Stewart	Morse		15		20	9	44	6
Bill	Long					20	20	7
Robert	Moore		12				12	8
Sakura	Harte		10				10	9
Kay	Long					10	10	10
John	Harte		9				9	11



## Wings Renewal Programme—Graham Moffat—Secretary



Just as a reminder to the CMAC Members who have been advised that they need to complete the Wings Renewal to retain their wings. If you don't complete the renewal, your wings qualification will lapse.

The Renewal process will be a 2 part process.

Wings holders will sit an online open book 20 question quiz related to Airspace and Rules with all the answers findable in a document linked to the exam. This is intended to improve our knowledge of the airspace we fly in and our responsibility to other airspace users. It is not something to be worried about passing or failing – you can go back and sit again until you get to the required pass mark.

Once that is completed, book a time with an approved Wings Examiner. The club examiners are David Griffin, Graham Moffat and Grahame Hart.

On the flight check day there will be a short flight to demonstrate continued competency and some oral questions around pre-flight checks, flying site specific rules and local airspace rules and knowledge. Neither of these two elements is expected to be onerous or difficult – more a refresher of your knowledge and ability to operate safely.

Go to the MFNZ web site to see if you are due to renew your wings this year (all membership numbers up to 5000).

## The Nuttin Special Returns.

This model was previously flown by a club member at The Willows some years ago. I purchased it on Trade Me from the previous owner. I only had to add a receiver and receiver battery to get it flying.

The model is described as a low-wing sports model originally designed by Mr Chuck Smith.

The engine is a Super Tigre G90 with a Jetstream Carburettor. After some ground engine trials and some fast taxis up the strip it was time to see if it would fly. After a very nervous take off, things settled down a bit and I managed to complete some circuits. I managed to complete a reasonable landing without breaking anything.

I am looking forward to getting some more flights in with the Nuttin and getting more familiar with it.



Regards: *Graham Moffat*



# SO WHAT IS IT? by big T

I have had a few inquiries since Ian's last Torque bulletin relating to the model that I was holding in one of the photographs.....that was my Quarter Midget pylon racing aircraft powered by a JETT 40 sized high performance racing engine and made in the USA by Dub Jett. He was the World FAI pylon racing champ in 1993 so the design and performance of the engine had a very good heritage.



As some of you know the pylon racing event involves racing around a triangular course for 10 laps which each equated to 400 metres, so the race was over 4 kms.....it is a very competitive event!

The engine was an AAC type, meaning it had an aluminium piston ( no rings) and an aluminium bore which was chrome plated, complete with a two bearing crankshaft. And, attached to the exhaust was a power boosting muffler. The engine would run around the 23,000 rpm and the airspeed would be in the region of 250 kph...there was no carburetor so you either had full power or nothing.

The propeller size was 8.8 inches x 8.75 inches- yes, inches and we still talk of our propellers in inches.

The model was based on a Mustang- the rules requiring them to be semi- scale- and was designed for smooth flying and high speed.....that model no longer exists as it came to a sudden end during racing.

If you race these types of models you have to be prepared for them to be written off- either by mid air collision, or faults with your fingers and thumbs on your transmitter- it does happen to all of us.

The fuselage was made in a female mould of an epoxy/ glass/ carbon fibre composition to give very good strength and to be of lightweight. The wing seat was moulded in and the firewall of 10mm ply was added in after completion of the fuselage.....the wing seat sets the datum line and the *firewall* had to be carefully positioned to the *wing seat* otherwise alignment problems would have been created...and we didn't want that! The engine mount was bolted to the firewall. The wing was moulded 1.5mm balsa again made in a female mould and as that process took place the required spars, wing mounts and undercarriage mounts were included; plus aluminium tube torque rods and aileron hinges which, in this case was kevlar- there was no obvious hinging that the average aeromodeller could see. Simply put the wing construction was just like making your lunchtime sandwich.

The tailplane and fin were 6mm quarter grained balsa with a sanded symmetrical airfoil section for no lift and when glued to the fuselage required extreme care to ensure proper alignment- yes, both in horizontal and vertical planes. The use of wing incidence meters is very common as a badly aligned model at those speeds is very difficult to control.

To keep the weight down the finishing was minimal, but adequate- however the tailplane and fin were covered in ¾ ounce /m2 fibreglass cloth held in place using epoxy resin; and no it wasn't brushed on but squeegeed on using an old credit card or a scrap piece of balsa. Some modellers are familiar with WEST RESIN but I have always preferred an ARALDITE RESIN known as K36 – it seems to be easier to spread and gives a good finish; and I believe more rigid than the WEST.

For those interested in symmetrical section items I have often used what I call a 'press' which involves covering the wet epoxied items with mylar and clamping that between 2 layers of 50mm sponge rubber which has been attached to 2 pieces 20mm particle board and then with g- clamps compressing the total foam thickness to 20mm.....I will do a separate article on that system at some later stage.



# Soaring News From Allan Knox and Ian Harvey (photos)

Not a lot of soaring this month. We managed 2 days and completed ALES 123 as well as F5J.

The first day was best with just 4 of us on the field, It was really bleak but the air worked OK so we did our 3 rounds of ALES 123 then headed home figuring we would get settled winter weather later on in the month. That really didn't happen but we did get 6 of us out to complete 123 and also do F5J. It was southerly this time, still cold and lift hard to come by. Still we posted some reasonable times despite the old bogies of flying overtime and losing the landings as well as launching too high deep into penalty territory on occasions. Fun though. It a pity we were unable to fit in the traditional Class a 6 min contest.

It will be good to have Dave Grif back from his overseas holiday and perhaps John can join us in August as well.

**ALES 123 competitor exhibiting a range of models flown. Keith with a Radian, Ian with an E Supra, Allan with an Allegro and Geoff with a NAN Explorer Q4.**



## CMAC ALES 123 NDC

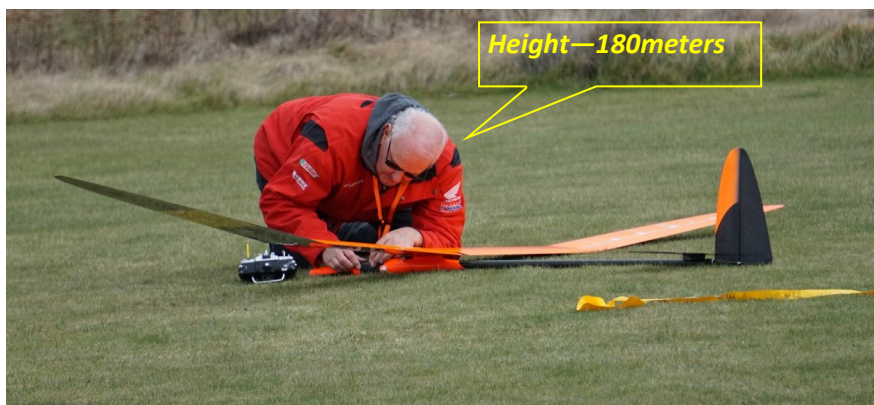
Date: July 25			Round 1				Round 2				Round 3			
Pilot	MFNZ	Total	Min	Sec	Lndg	R1T	Min	Sec	Lndg	R2T	Min	Sec	Lndg	R3T
Allan Knox	7621	1226	6	3	50	407	6	1	50	409	6	0	50	410
Keith Elliott	1408	1131	5	38	0	338	6	1	25	384	6	1	50	409
Geoff Lilly	6576	1120	4	49	50	339	6	8	25	377	5	54	50	404
Anton Nikoloff	3599	1109	5	28	50	378	6	0	50	410	4	31	50	321
Ian Harvey	3194	1051	5	27	50	377	4	24	0	264	6	0	50	410
Ken McMillan	10988	712	4	40	25	305	3	5	50	235	2	2	50	172



# More Soaring

CMAC F5J NDC July 2025

Pilot	Total	Round 1					Round 2					Round 3					Round 4				
		Min	Sec	Hgt	Lndg	R1T	Min	Sec	Hgt	Lndg	R2T	Min	Sec	Hgt	Lndg	R3T	Min	Sec	Hgt	Lndg	R4T
Allan Knox	1757	9	3	170	40	498	9	38	221	45	460	7	34	186	35	396	9	59	232	0	403
Ken McMillan	1726	9	51	146	35	553	4	30	140	50	250	7	13	172	40	387	9	51	180	35	536
Anton Nikkoloff	1725	3	25	102	40	194	9	55	192	35	534	9	59	164	0	517	8	38	176	50	480
Ian Harvey	1648	7	50	197	0	372	8	57	194	5	445	7	10	216	10	292	9	56	183	35	540
Keith Elliott	984	4	31	235	40	106	4	43	189	25	214	8	2	200	0	382	5	37	189	40	283
Peter France	891	0				0	9	57	121	45	582	2	15	45	0	113	3	12	91	50	197





## FF Report July 2025 from Lynn Rodway (with activity photos by the Editor)

We have had some good days to get some times in for NDC Free Flight with nice sunny weather but cool temperatures for a start. However the cool conditions did not promote much lift. Consequently the scores were down.

### RESULTS:

#### Vintage Rubber

John Beresford 62, 69, 64. = 195 (KK Senator 1950)

Lynn Rodway 66, 95, 56, + 3x6 = 235 (Gollywock 1944)

#### Open Glider

Lynn 48, 63, 83 = 194

#### Aggregate

Allan 58, 53, 34, 44, 58, 33, 40, 63. = 383





# Vintage Results & News

*from Allan Knox*

## IC Sport Cabin Texaco

Allan Knox 909  
Lynn Rodway 799

## E Rubber Texaco

Allan Knox, Senior Dart 1937,  
Total 1183

## Electric Sport Cabin Texaco

Lynn Rodway 1058  
Allan Knox 866

## Classical Precision

Allan Knox Total 594

## Vintage RC Rule Changes

The Major Vintage RC rules change has gone through and will be effective for next year including the Nats and NDC. This years NDC is unaffected. There is no change to Vintage FF after a strong "No" vote.

The principals guiding the change were as follows:

- All current models should fit a class under the new rules
- There should be significantly fewer classes. (We will have 10 in place of 16)
- Classical and Vintage classes should be combined
- IC and Electric should be combined where possible.
- Age bonus would be dropped to allow this combining and to remove a bias towards older models.
- The dual RC flying skills needed to stay airborne as long as necessary and to land accurately would remain.
- Abandon the minimum wing loading rule
- Perhaps most of all, make things simpler to understand and for fewer models to be needed to cover all the classes in the hope of improving the numbers flying each class.



The significant changes are:

- Vintage has just one age cut off. All models prior to 31<sup>st</sup> December 1975 are eligible.
- Duration becomes one class using both IC and Electric power with a 5 minute target time. Some adjustment has been made to IC engine runs to allow for the extra 60 seconds of flight time.
- Sport Cabin Texaco E and Sport Cabin Texaco IC are combined. A limitation on electric throttle use makes Electrics more comparable with fixed throttle IC models.
- Most Texaco classes have energy allowance set by weight of the model as we had with E Texaco. This allows larger and inherently heavier models to better match the climb heights achieved by lighter and smaller models.
- Spot landings are retained for Duration, Precision and most Texaco classes.
- All current RC Nats Trophies are still appropriate for their purpose with relevant names. There are five of these if we include the spark ignition trophy.
- Rubber and Sailplane models can be flown in Duration and Precision when converted to motor power.
- Although there are 10 classes it is possible to cover them all competitively with just 5 models. Loading up the car for the Nats looks a whole lot simpler!



# Sunday Strip Scene

*Some photos from the Editor*



- A: Richard Matheson with his Cirrus SR22T cabin electric model.
- B: Simon Rees brings his model in for a smooth landing
- C: Graham Moffat's UpStart 60 shows off its huge wing area.
- D: Duwayne Petzer gets his Goblin 'copters ready for more frantic flights.
- E: The Secretary's barbeque was much appreciated on the cold morning
- F: Richard's Freewing PJ50T probably needs a sealed runway to get airborne,





***Tail-piece: Keith Elliott, Allan Knox , Ian Harvey and Geoff Lilley check that all the scores in the ALES123 competition have been entered in a the correct manner. It was a chilly morning.***

Aug/25	165	VINT	FF Nostalgia Glider Duration	<b>August 2025 NDC competition schedule</b>
Aug/25	143	VINT	RC Vintage IC Duration	
Aug/25	144	VINT	RC Vintage E Texaco	
Aug/25	145	VINT	RC Classical E Duration	
Aug/25	146	VINT	RC Vintage Precision	
Aug/25	248	FF	Catapult Launched Glider	
Aug/25	249	FF	Hand Launch Glider	
Aug/25	250	FF	Open Power	
Aug/25	251	FF	Kennedy Precision	
Aug/25	252	FF	Open Tissue	
Aug/25	317	CL	F2C Team Race	
Aug/25	318	CL	FAI Team Race (Classic FAI & F2F combined)	
Aug/25	319	CL	Open Goodyear Team Race	
Aug/25	320	CL	Slow Goodyear Team Race	
Aug/25	321	CL	Class B Team Race	
Aug/25	322	CL	Percentage Speed	
Aug/25	323	CL	Classic 'A' Team Race	
Aug/25	324	CL	Classic 'B' Team Race	
Aug/25	426	SOAR	Class R, eRES 2M	
Aug/25	427	SOAR	X5J Unlimited Class O	
Aug/25	428	SOAR	NZ F5K CLASS Q, 4 Rounds (Total Raw Scores )	
Aug/25	429	SOAR	Thermal D (F500)	