P&DARCS

Pakenham and District Aircraft Radio Control Society

P&DARCS NEWSLETTER SEPTEMBER 2024

YOU BLOODY BEAUTY!

Good morning fellow Australian Aeromodellers – today we awake to a new Australian world F4C champion, Mr David Law.

Next Club Meeting Oct 2 Wed 7.30 - 9.30 pm

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Ordinary Committee Members:

John van de Waterbeemd

David Gibbs

In This Edition:

Useful Links

.

P&DARCS Homepage

P&DARCS Calendar

CP&DARCS Club Rules and Safety documents

Upcoming Events

21 Aug
Committee Meeting
21 Aug (WED) 7.30 pm – 9.30 pm

31 Aug
ASAA Victorian States Titles
31 Aug (Sat) - 01 Sep (Sun)
Field Open: No

18 Sep
Committee Meeting
18 Sep (Wed) 7.30 pm – 9.30 pm

Oct 2
Club Meeting & Coop AGM
2 Oct (WED) 7.30 pm – 9.30 pm

Oct 23
Committee Meeting
23 Oct (WED) 7.30 pm – 9.30 pm

Editor's Report:

Hi all,

A big thank you to all the contributions this month.

This month's edition includes a new section called "SPOTLIGHT" which will focus on a random club member each month and reveal some interesting facts about them.

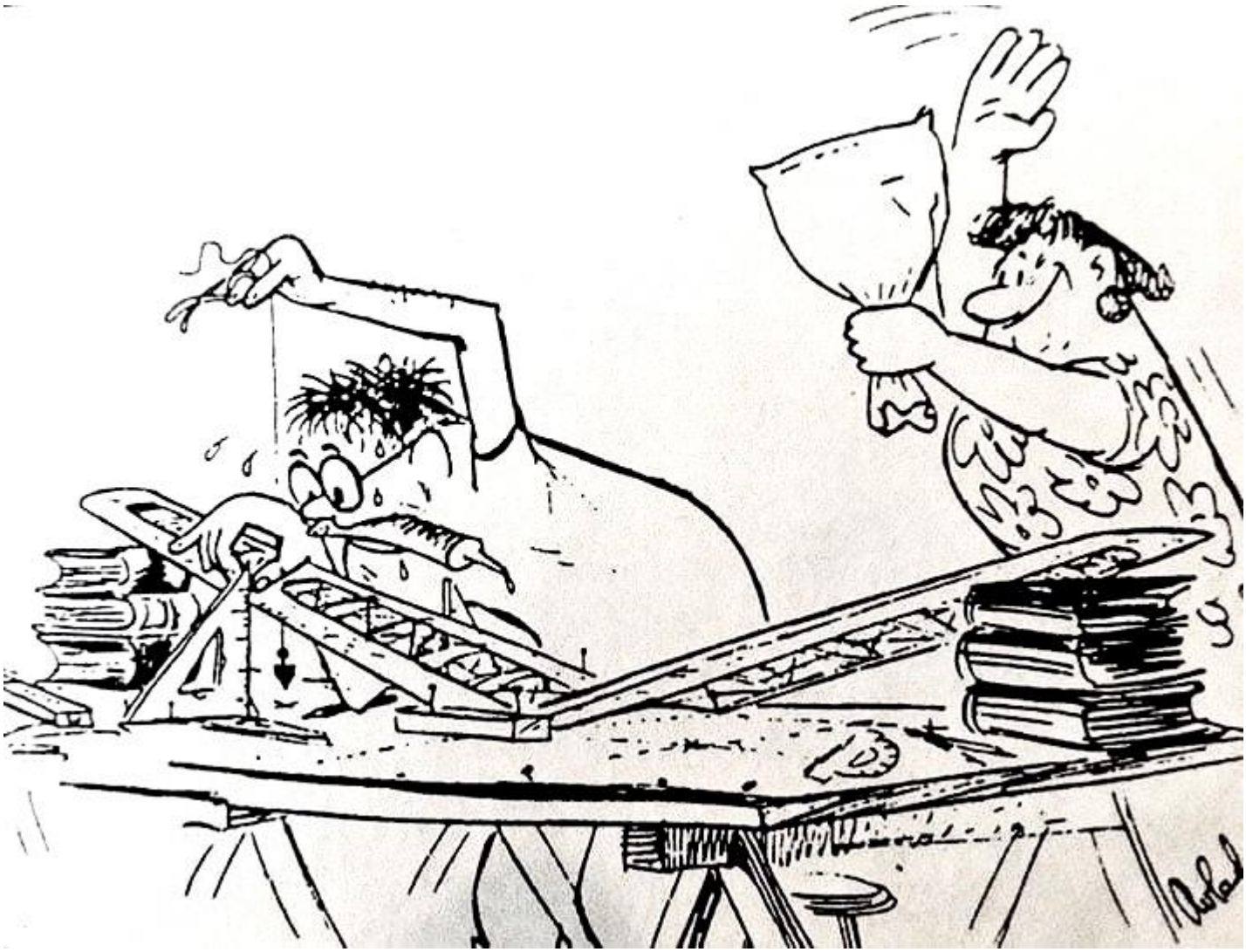
Breaking news is that Dave Law has won the F4C World Championships. I join with the whole club to congratulate both Dave and Melissa for making us so very proud.

Please feel free to submit any stories or photos to share with fellow members to **editor@pdarcs.com.au**

I look forward to hearing from you.

Cheers,

Liz



F4C World Champion

We can all join in and celebrate an extraordinary achievement, one that marks a pinnacle in the world of scale aviation. We are honoured to recognise David Law, a distinguished member of P&DARCS in Melbourne, who has once again shown his unparalleled skill and dedication by securing first place at the 2024 F4 Scale World Championship in Romania!

Competing against a formidable, international field of the world's best scale pilots, David has demonstrated not only his mastery of the craft but also the perseverance and passion that define a true champion. This victory in 2024 is all the more remarkable when we remember Dave's outstanding performance in 2022, where he claimed second place in Norway. To return two years later and rise to the top of the podium is a testament to his relentless pursuit of excellence. Along with Melissa Law (also competing in F4H) and the Team Manager, Greg Lepp, this Australian F4 team has risen to the challenge of overcoming what it takes to takes to stand on the world stage.

Congratulations once again Dave on an outstanding achievement.

Keith Quigg

FINAL NORMALISED RESULTS

Date
Time

2024 FAI F4 SCALE World Championship Classes F4B, F4C, F4H

Rank	Name	Country	Aircraft	Static	Flight1	Flight2	Flight3	Flight score	Total
Class F4C				(Total score is static and average of the two best flights)					
1	David Law	AUS	Pitts s2b	992	939	986	1000	993	**1985**
2	Andreas Lüthi	SUI	Bücker Jungmann, 1.131E	1000	943	913	984	964	**1964**
3	Marc Levy	FRA	CM Fouga Magister	970	924	981	975	978	**1948**
4	Thomas Höchsmann	GER	Pilatus PC-21	935	1000	1000	988	1000	**1935**
5	Jan Doubrava	CZE	T 28 Nomad	952	742	872	889	881	**1833**
6	Marcus Hausmann	GER	Stampe S.V. 4C	892	881	936	812	908	**1800**
7	David Kopal	CZE	Grumman F3F-2	912	860	771	727	815	**1727**
8	Tim Dickey	USA	WACO UEC Cabin	947	792	753	652	772	**1719**
9	Frána Frantisek	CZE	Zlín Z-526 AFS-V	784	878	949	857	913	**1698**
10	Janusz Malarski	POL	P38 LIGHTNING	833	743	867	806	836	**1669**
11	Hans-Dieter Wahl	GER	Grumman F8F-2P Bearcat	730	742	970	831	900	**1630**
12	Roger Nieto	FRA	Dewoitine 520	765	811	882	846	864	**1629**
13	Marek Dabrowski	POL	Dalotel DM-165 Wiking	691	898	950	820	924	**1615**
14	Daniel Boulanger	FRA	Caudron Luciole C272-5	752	798	880	787	839	**1591**
15	Argyris Giannetakis	GRE	Ryan SCW 145	831	730	684	778	754	**1585**
16	Juan González Robles	ESP	Tiger Moth DH-82A	778	775	829		802	**1581**
17	Ticuleanu Gelu	ROU	Albatros Dva	902	359	654	595	624	**1526**
18	Anders Remar	SWE	North American NA-16	779	667	751	705	728	**1507**
19	Carlos Escuder Cano	ESP	Fokker DVII	700	767	272	836	801	**1501**
20	Jan Lødner	NOR	Saab Safir	682	549	800	651	726	**1407**
21	Rytis Kalinauskas	LTU	Caudron C.460	720	647	706		676	**1396**
22	Popa Ion Mugurel	ROU	Sopwith Pup	822	501	532	514	523	**1345**
23	Victor Macho Estrada	ESP	Sopwith 1/2 Strutter	833	556	361		458	**1291**
24	Boguslaw Malota	POL	KLEMM KL-35	688	496	575		535	**1223**
25	Christos Leontaritis	GRE	Bristol M1C	650	151	454	324	389	**1039**


AUSTRALIA


AUS
F4 AE
PowerBox


VH-EXM


RO
PH07NUT

LITHIUM POLYMER BATTERIES
(LiPO's)
SOME BASICS

A typical LiPO battery

Why LiPOs Are Used
LiPo batteries are a type of rechargeable battery that has taken the electric RC world by storm, especially for planes and helicopters.
They are the main reason electric flight is now a very viable option over fuel powered models.

RC LiPo batteries have three main things going for them that make them the perfect battery choice for RC planes and even more so for RC helicopters over conventional rechargeable battery types such as NiCad, or NiMH.
1. RC LiPo batteries are light weight and can be made in almost any shape and size.
2. RC LiPo batteries have large capacities, meaning they hold lots of power in a small package.
3. RC LiPo batteries have high discharge rates to power the most demanding electric motors.

These benefits are important in any RC model, but for airplanes and helicopters they are the reason electric flight has become so popular. Face it, electric cars and boats have been around for decades, it wasn't until LiPo battery technology arrived on the scene that electric planes and helicopters started showing up and are now surpassing nitro power and even turbines in terms of power to weight ratios.

Basic Construction

Almost every RC LiPo battery cell is packaged in an aluminium foil pouch, coincidentally called a pouch cell. The picture below shows a typical 2 cell LiPo RC battery pack.
Pouch cells are the perfect solution for building multi celled battery packs since the flat pouch cell can be stacked with no wasted air spaces like found within round celled battery packs. Of course since LiPo's use this lightweight pouch instead of a metal can, less weight is the result making LiPo's the best choice over Li-Ion in a weight conscious application such as RC aircraft.

A typical LiPo RC (pouch) battery pack, 5000mAHR, beside a golf ball to judge size
The small tabs on each end are the + and - electrical connections

Handling Precautions

1. Be very careful to never let the main + and – leads touch or inadvertently plug them together, fire and brimstone will be the result
2. Be careful to not drop the battery on a hard surface, the cells can be damaged

Using your LiPO's, (discharging)

A 40-size electric powered Biplane

A LiPO will heat up if it discharged under load to around 3.0 volts per cell - it will become very warm/hot and will shorten its life substantially.
A very good rule to follow here is the **"80% rule"**.
This simply means that you should never discharge a LiPo pack down past 80% of its capacity to be safe. For example, if you have a 2000 mAh LiPo pack, you should never

draw more than 1600 mAh out of the pack (80% x 2000). This is assuming a healthy pack as well that has the full 2000 mAh capacity (as packs age, their capacity drops).

The four main things that shorten LiPo battery life are:
1. Heat
2. Over Discharging
3. OVER Charging
4. Inadequate Balancing

Charging And Balancing LiPO batteries

A typical computer-controlled charger, and power supply, on a concrete surface

Charge LiPO batteries on a fireproof surface, OR in a fireproof bag, and at least 1M from any combustible material

A 3.7-volt RC LiPo battery cell is 100% charged when it reaches 4.2 volts. Charging it past that will ruin the battery cell and possibly cause it to catch fire.

It is critical that you use a charger specified for LiPo batteries and select the correct voltage or cell count when charging your RC LiPo batteries if you are using a computerized charger.
If you have a 2 cell (2S) pack, you must select 7.4 volts or 2 cells on your charger. If you selected 11.1V (a 3S pack) by mistake and tried to charge your 2S pack, all the better computerized chargers out there these days would warn you if you selected the wrong cell count, and not start to charge

Balancing is required on any RC LiPo battery pack that has more than one cell since the charger can't identify from different cells and know if one might be overcharged even though the total voltage of the pack indicates otherwise.

Balancing ensures all cells are always within about 0.01-0.03 volts per cell so over charging or discharging of one or more cells won't ruin your battery pack, or worse become a safety issue from overcharging a cell.

Note the small balancing lead plugged into the charger, behind the main leads, in the picture above

LiPO Damage

1. **Swelling**

A badly swollen 6s 5000 mA hr LiPO pack, very risky to continue using this one

LiPo cells can swell a little bit, especially if they are getting pretty warm during use.
It is actually somewhat normal (again based on how hard you run the packs, the quality of the packs, and how much they heat up) and as long as it is very-very minor swelling & goes away after the pack cools down you usually have nothing to worry about.
As packs age, the swelling can get a little worse
As a LiPo pack is nearing the end of its useful life it can show some very minor swelling that won't go away, even after the pack cools. This pack may still have some nice nonaggressive flights left in it however, so treat it kindly with gentler flying / driving in its early retirement before sending it to the LiPo graveyard

If the LiPO pack is swelled up to the point that is tight as a drum, (as shown in the picture above),and very hot to touch, and it does not return to normal size when it cools, do not use it, dispose of it

2. **Crash Damage**

An impact damaged 6s 5000mAhr LiPO pack, (it did not burn !)

Disposing Of LiPO Packs

Unlike NiCd or NiMH batteries, LiPO batteries are environmentally friendly

1. If any LiPO cell is swollen or physically damaged do NOT discharge the battery, jump to step 5

2. Place the battery in a fireproof container or on a concrete surface at least 1M away from combustible material

3. Discharge the battery using a LiPO discharger, or use a lamp

4. Discharge the battery to1.0 volts per cell or lower

5. Submerse the battery in a bucket of salt water, (½ cup of table salt per 4 litres of water) use a sharp object and puncture the LiPO cells when immersed, leave the battery in the salt water for an extended period, (two weeks)

6. Remove the battery from the salt water, wrap in newspaper or a paper towel, and place in normal trash.

Here is me relaxing when Slope Soaring. Lake Bullen Merri, Camperdown.

Ian Slack

P&DARCS Scratch & Kit Built Rally

Sunday November 10th 2024 - 9:00am

Field Location; Cnr Fowler & Wenn Rds. Cardinia, (50K East of Melbourne) Vic

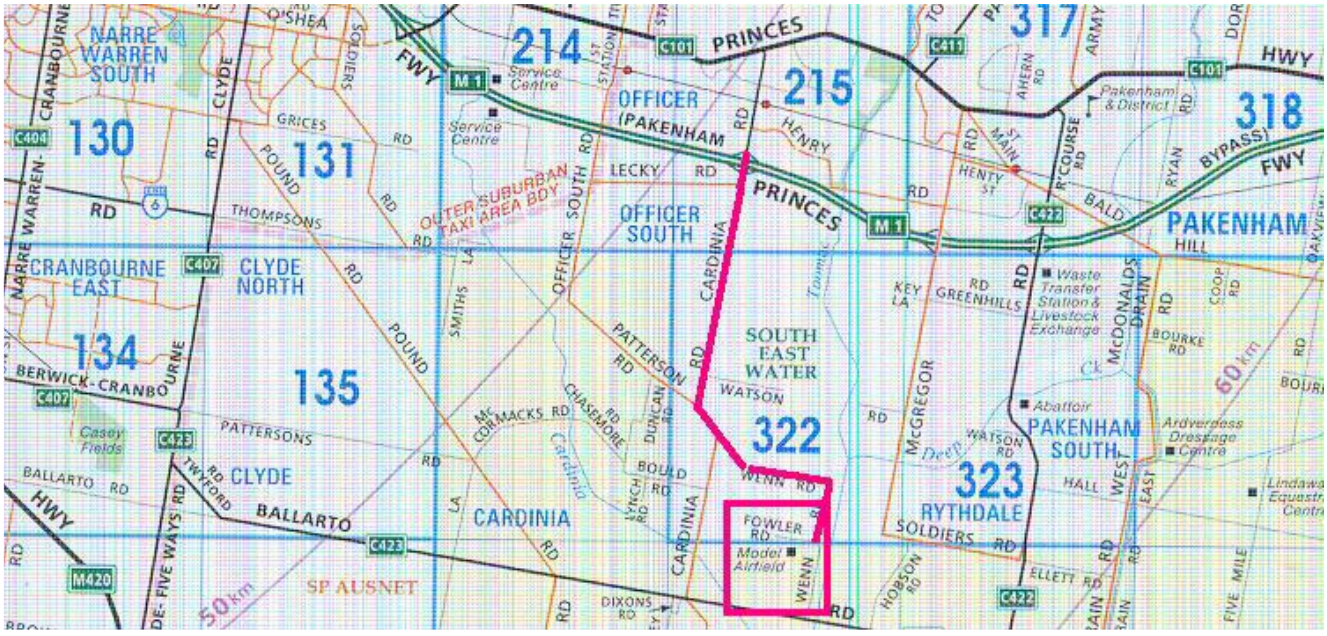
All Kit & Scratch Built Aircraft welcome. No ARF's please

Tell your friends to come and see some great model aircraft.

- No documentation required – just fly and have fun. Starting 9am.
- Non-Scale aircraft welcome, they must be from a kit or scratch built.
- Pilots must be MAAA affiliates – MAAA cards and Model Permits must be sighted.
- 1,500ft ceiling height enforced.
- Model building projects most welcome, a trophy will be awarded.
- See web site, *www.pdarcs.com.au/rally*, for information & entry forms.
- Please note, dogs NOT allowed at field, even on a leash.
- HOLK RC will have a shop at the field.

$5 per car entry/registration fee for pilots and spectators.

Location Plan



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SPOTLIGHT

Q: Name
A: Keith Baddock
Q: Age
A: 55
Q: Discipline
A: Control Line Racing and Combat
Q: Preferred Type of Aircraft:
A: C/L – Combat, R/C – Low-Cost Scratch Build Park Fliers
Scratch / ARF: Scratch
Q: Favourite Model Plane:
A: Nemesis Bendix Racer (Scarily fast as anyone who has seen it or worse flown it can attest, and except for the over thick wingtips is good enough to compete in profile scale!)
Q: Engine Type Preference
A: Diesel
Q: Radio Gear
A: JR X2610
Q: What do I do
A: Aerospace Engineer, designing just a little bit larger R/C turbine models than the rest of the club Check out the MQ-28 for some awesome "Made in Aus"
Q: How did I get in the hobby
A: Introduced to it while at school by my Science Teacher, Len Follet
Q: Do/Did you fly in competitions:
A: Yes, almost the only type of flying I do on a regular basis
Q: How did I go?
A: Hold two Australian records, have won, and placed in many Nationals and State champs, mostly Control Line Racing and combat, though I have placed in Control Line Scale and even won 2cc Old Timer at the Vic state champs, back in the days when a diesel was the go!
What Other Hobbies: I've also built a Garden Gauge Live Steam Locomotive (Only took 22 years…)
Q: Pet?
A: Stanley, a 12 yr. old labradoodle

1983, Me flying on the front lawn at Dandenong Tech with a Cox .049 balsa trainer (Designed by me and scratch Bu 2001,

Favourite Model – Nemesis F1 adapted for Bendix Class Racing (Designed by me and scratch Built of Course!)ilt of Course!)

2024, Control Line Fly-in, P&DARCS. I'm 3rd from the Left holding a Terminator Multi-task Control Line Model (Designed by me and scratch Built of Course!)

2023, R/C Live Steam – Lynn based on the Edwin Class construction articles in Australian Model Engineering (Scratch Built by me but can't take the credit for the design!)

RECIPE OF THE MONTH

Upside Down Tomato Tart

This amazing looking tomato tart is so easy to make and is utterly delicious. Light and tasty it makes a lovely brunch and is a terrific way to get more veg in your diet. Enjoy…

Tips:

The best commercial puff pastries are the ones made with pure butter – always check the label, as some puff pastries are made with oil or other fats that just don't taste as good as butter.

Any combination of vegetables can be used for this depending what's in season. I have made it with capsicums and zucchinis in the past.

Persian style feta is a drained curd, fresh cheese. Unlike its drier, saltier Greek cousin, it's creamy, but still crumbly. Low in salt, it is usually sold in tubs of oil with herbs such as bay leaf and dill.

Ingredients:

1 red onion

300g ripe mixed-colour cherry tomatoes

1 tablespoon of olive oil

Salt and pepper to season

1 sheet of all-butter puff pastry

2 tablespoons of Persian feta

fresh parsley

thick balsamic vinegar or glaze

Method:

Preheat oven to 180c

Cut the tomatoes in half and place in a baking tin

Cut the onion into quarters (or eighths if large) and separate into petals and add them to tin

Season well with salt and pepper and drizzle over some good olive oil

Toss well with your hands to coat the vegetables

Roast in oven for 50 minutes

When cooked remove the tray from the oven and drain off any excess fluid

Push the vegetables away from the sides toward the centre of the pan

Cover with a square of butter puff pastry tucking it under as much as possible so no vegetables are visible

Bake a further 30 minutes or until pastry is golden

Use a spatula to loosen the edges and using a board and a tea towel flip the baking tin over

Give a tap and gently lift off the tin – it should come away easily

Break up pieces of Persian feta and place on top of the tomatoes

Sprinkle with some parsley sprigs and drizzle with balsamic glaze or thick vinegar

P&DARCS Calendar

August, 2024

21 (Wed) 7:30 pm - 9:30 pm Committee Meeting
31 (Sat) - 01 (Sun) ASAA Victorian States Titles Field Open: No

September, 2024

18 (Wed) 7:30 pm - 9:30 pm Committee Meeting

October, 2024

02 (Wed) 7:30 pm - 9:30 pm Club Meeting & Coop AGM (Online)
23 (Wed) 7:30 pm - 9:30 pm Committee Meeting
26 (Sat) 10:00 am - 3:00 pm Spring Clean Working Bee Field Open: No

November, 2024

09 (Sat) 2:00 pm - 4:00 pm Mini Working Bee for Rally Field Open: No
10 (Sun) P&DARCS Scratch / Kit Built Scale Rally Field Open: No
20 (Wed) 7:30 pm - 9:30 pm Committee Meeting

December, 2024

04 (Wed) 7:30 pm - 9:30 pm Club Meeting (Online)
08 (Sun) 9:00 am - 4:00 pm VPA Pattern Event Field Open: Partial

April, 2025

12 (Sat) - 13 (Sun) ASA Monty Tyrrell Scale Rally Field Open: No

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