

The News

July 2007



PDARCS

Next club meeting

Wednesday 4th July 8pm Start
Dingley Community Hall
Marcus Road Dingley Village

When I Grow Up !

When Dick Rylands Little electric Birddog grows up it may be as big as Darren Smiths Monster Version.



BURLEY FIELD
Wenn Road Cardinia

www.pdarcs.com.au

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Editor's Bit



It is so easy to get into this hobby nowadays. No big expenditure is required anymore. If you think the hobby might be for you can wet the old toes by spending very little of your precious savings. The small 2 channel Picco helicopters can be picked up for only a small investment of \$50 or less and for only \$200 you can move up a rung to the contra rotating twisters and the like.

Fixed wing is cheap too, I would think that millions of Electrafuns would have been sold worldwide. All great for the hobby you would think. Well, yes and no.

Obviously based on sales figures we must have thousands of modellers out there. Yet we only have 2700 registered VMAA members. Most of those mystery modellers operate from local parks either as loners or in small groups. Unfortunately, as most of them seem to be, at least initially anti club, we don't get to see them and show them where to next after the basics are mastered. Once the novelty of learning has worn off and the rudder elevator model is becoming a little boring a great majority would probably give the hobby away.

This is a great shame as I am sure that a great percentage of these guys would continue in the hobby if enticed into the club environment. So it is really up to all of us when we see these guy to encourage them to move on and at least visit their local club. Telling them you shouldn't be flying in the park you need to join a club obviously won't work. If you come across these guys don't use this approach, tell them about the models flown at your club and invite them down for a look. You never know you could add a long term modeller to our sport.

On roughly the same subject I am starting to wonder what will be radio controlled next. On a recent CD I received with one of the English mags I noticed that you can get an RC Shark on 2.4ghz to scoot around your fish tank !!

Before I go I must thank the members that responded to our request for a webmaster to run our new website. I think that it is great that when the call goes out for assistance more often than not the membership responds positively. It's a definite sign that you are all proud of your club and happy to be a part maintaining it's position as the best club with the best facilities in Australia. The successful candidate was Alan Swift a long time club member and comes from a long line of P&DARCS Swifts. We look forward to having you on board Alan.

Now in August we will have the Annual general meeting and a new committee will need to be elected. This year our president, contest director and catering team will be standing down so I would like to take the opportunity to thank them for their fantastic efforts over the last few years. Obviously we will need some new blood to replace them so please think about joining the P&DARCS Management team.

That's all folks

Next Meeting

Dingley Community Hall, Marcus Road Dingley

Wednesday 4th July 8pm start



Guest Speaker Wall Schubach - Communication through the ages

Our Raffle Prize will be

a Propo MKS AX700 Frequency Scanner. It's a pocket sized device the winner will be able to keep in their flightbox, and it's worth nearly \$100.





“President Phil’s Focus”,

July is a great month for the Langton household Since ‘retirement’ we made it a habit to go north for the month. We attend a Church Conference in the first week, spend a week with our Sydney based Son and his family and then two weeks in a time share. Of course I take a plane or two to fly and one to build.

So, how good is that!! Small reward for 40 years hard work in the lift industry; wouldn’t you agree!!

All that to make my apologies for the next Club Meeting. Peter Harris is chairing the show and Walter “Wordsworthless” Schubach is bringing an interesting presentation on “Communications Down Through the Ages” So, come along and give your support. In keeping with the topic the Raffle prize is a Propo MKS AX700 Frequency Scanner. It’s a pocket sized device the winner will be able to keep in their flightbox, and it’s worth nearly \$100. (Well, what’s the connection, I hear you say ‘communications’: don’t we communicate with our models on 36Mhz?)

By the time you are reading this Pakenham darcs News there is only one month till the August Meetings and the AGM. All Committee positions are declared vacant and appointments are taken from the meeting. Some existing committee members are offering themselves for re-election. It’s time for some of the newer members to offer themselves to serve the club by being on the committee. It is expected that we definitely need people for :- President, Catering, Contest Director, Safety, Facilities & or Plant Manager. The retiring incumbents need a break or changed role so this is your big opportunity. Contact me or any other existing committee member with any questions or offers of interest. P&DARCS is one of the best clubs anywhere so come on board and bring your special contribution to “make a difference”.

Next month I will be recording my thank you’s to everyone that has contributed during my Presidency, but I want to record now how much I have enjoyed serving the club as Pres. and working on the Committee for the last 4 of 5 years. Don’t hold back if you can join the next committee team, you wont regret it.

On another subject, how wrong one can be thinking one can offset the embarrassment by volunteering to be Mug of the Month. For the record, the second account of my ‘incident’ bore little resemblance to my account!! But, as they say in the classics” **Why let the facts get in the way of a good story?”**.

See you at the field soon enjoy the great facilities we have at Burley Field.

Phil

Secretary’s Report

Minutes of General Meeting at Dingley Community Centre Hall 6 June 2007

Meeting opened at 8:00pm

Chairman / President Phil Langton, Sec. Don White, Scribe Peter Harrison, Treasurer Peter Harris

Apologies: Alan Coleman; Derek Trussler; David Glossop; Fred Webb.
Visitors: Nil

Correspondence:

VMAA re Fees, PARCS Auction Langwarren Model Exhibition Invitation to Exhibit. Hallam Hobbies Poster re opening in June Fred Barabas

Minutes of Gen Meeting held 5 May 2007 at the “Burley” Field were read as published in “The P&darcs News” dated June2007. Moved Wally Schubach; 2nd Frank Dibble; Passed Unanimously.

Matters arising from previous Minutes:

1. Water Tanks

President reported that the Water Storage Tank Project is now all but completed. We have also completed our requirement to publish project details in the Local Paper indicating that P&DARCS received the Financial Grant from the Government. We have had both Editorial and Photos Published. All that remains is to have an audit done of the completed project.

2. Changes to Flying Rule 22

Glen Cossor presented some new text to replace this rule. After much discussion the Chairman requested a pause for Glen to amend his notes to reflect the members suggestions. The following was read to the meeting:-

1.- All pilots must fly at an altitude of at least 15 meters (50ft). All manoeuvres flown below this altitude (Take off, Landing, Touch and go or Low Pass into wind) shall be clearly called to all participating pilots on the same flight line.

2,- Any pilot intending to hover or perform 3D Flight (Fixed wing or Helicopter) shall use an alternative strip to the general flight line. Take off and landing will still be permitted on the main flight line. Flying or taxiing across adjoining strips is prohibited at all times.

Moved Glen Cossor 2nd Rob Till Passed Unanimously. The new Rule Change is to be mailed to all members by the Registrar with the renewal receipts.

2. Club Keys

The Registrar advised that in future replacement of Field Keys would cost \$15.00 as they are Security Keys.

Treasurers Report

The Budget for 2007/8 Proposed Peter Harris proposed the P&DARCS 2007-08 Budget as printed in “The News” June 2007 be approved. The budget indicated a reduction in the budgeted fees was made possible by a large drop in the Insurance quote that M.A.A.A. had secured.

Treasurer Peter Harris moved fees be \$175; 2nd Jerry Visick; and other fees as normal at pro rata . During further discussion Ivan Chislett suggested we leave Club Fees as is and absorb the reduction into the Club Account for future projects.

Stop Press:

The Mayor of Pakenham will be visiting for lunch on Saturday the 30th June: Please make her welcome

Minutes cont

An Amendment was then moved by Paul Somerville that we leave Club Fees 2007 – 08 as is and absorb the reduction into Club Funds. The Treasurer seconded the amendment to the motion and it was Carried Unanimously.

Catering Report:

Wal Schubach reported everything is going along fine. Further Pearl reported that Hot Sausages will be available for the Fun Fly to come on Sat 9 June next.

General Business:

P Harrison raised the need for:-

- Discuss Lost Property – Need for Policy or a Box
- Discuss Rubbish Clean-up of the Cigarette Butts, Elastic Bands and General Rubbish from the Lawns. Glen Cossor will bring paint tins for use by members.
- Discuss Ambiguous Sign in Radio Pound. It was agreed that these items be referred to the Committee for consideration and report to the members.

Hallam Hobbies:

Member Fred Barabas is Opening new Hallam Hobby Store,. Flyers were handed out.

VMAA Trophy

From Glen Burgdorf (Absent) per Glen Cossor Glen B. says we can do much better if we try harder at the next VMAA trophy. Members are asked to please make contact and Co-ordinate your willingness to enter VMAA Trophy next year with Contact Club Captain Glen Cossor and Glen Burgdorf. **.RAFFLE** Won by Peter Harrison a VMAR Extreme Stik Donated by Bob Fripp.

SHOW & TELL

Peter Harrison Glider Towing and Bungee launching Glen Cossor Scale Aerobatics Extra 260 Mid Wing Scale Aerobatics Model This is truly a Showpiece Model. Wally Schubach An 104" ¼ Scale Aeronca Champ Model in wood, this model is 90% Completed except for covering and fittings. Motor is to be an O.S. 108 Phil Langton brought his Panic 3-D Electric Model and Demonstrated Servo Information after the meeting.

LOST & FOUND A Field Key with a Red & Yellow Tag Beaconsfield Motors. See Peter Harrison The Meeting Closed at 10.20pm Approx

Registrars Ravings *Rob Till*



Membership Renewals

All existing members should have received their renewal notices. If you have not received anything – perhaps you changed your address and forgot to tell me! Email me through the web site if

you have any problems.

The renewal rates are the same as last year, just the breakdown has changed.

Remember that your insurance cover runs out on 30 June and there is no “renewal period”.

To maintain the cover it is essential that your renewal form and payment is received by 30 June.

Rookie surprises in Fun Fly round 3

Roly Gauman

Burley Field 9th June 2007: Young **Zachary Mitchell** only recently received his bronze wings and entered round 3 of the fun fly series as his first contest. To make up for his lack of competition experience he put in heaps of practice before his official flights. This paid well with a second place on the day. He topped the field in the “Dead stick loops” and the “Touch and go” events. Coached by his dad and encouraged by all the competitors, Zac will be the one to watch in future rounds.

Fred Webb’s new weapon, a beautifully finished “Super Sportster” met an untimely and early end in the morning when he had a battery failure during a practice flight. Webb completed the round by flying fellow competitor **Bill Reynolds** plane. Fred’s 5th position is credible considering the accident and flying an unfamiliar plane. It was enough to defend and hold his overall 2nd place.

Peter Harrison, a late entrant on the day flew the round with no practice. (His choice, as practice before the official flight is encouraged.) and ended, predictably, in second last position, well below his and his planes ability. Take a leaf out of young Zachary’s book, Peter!

Team Bay 13 only representative, **Ivan Chiselett**, also put in a below par round. He muttered something about chattering teeth, shaking thumbs and a frozen mind, which apparently not even Pearls hot snags could restore. Another Bay13 team member, **Paul Somerville**, declared that he had run out of wings. Later in the morning he was seen and heard hammering and welding propellershafts in the shed. All eyes were on him as he rolled out his contraption later in the day. Engulfed in a mist of methanol (some mischievous onlookers reckon it was just water) he taxied up and down the strip but failed to become airborne and was later seen to return back into the shed.

The next and final round of the Fun Fly 2007 will be on Saturday, 7th July 2007

See you there!

Results of Round 3. 9th June

1 st Roly Gaumann	31pts
2 nd Zachary Mitchell	28pts
3 rd Nom Parker	25pts
4 th Ivan Chiselett	19pts
5 th Fred Webb	17pts
6 th Peter Harrison	14pts
7 th Bill Reynolds	12pts

Overall standings :

1 st Roly Gaumann	87pts
2 nd Fred Webb	58pts
3 rd Nom Parker	55pts
4 th Ivan Chiselett	39pts
5 th Peter Harris	38pts
6 th Paul Somerville	36pts
7 th Kevin Chiselett	30pts
8 th Zachary Mitchell	28pts
9 th John Brann	26pts
10 th Bill Reynolds	23pts
11 th Glenn Burgdorf	19pts
12 th Peter Harrison	14pts
12 th Tony Greiger	14pts
13 th Peter Stapleton	6pts

If it is to be - it is definitely up to me

Phil Langton

I came across this phrase years ago as a young bright eyed and bushy tailed trainee manager. I remember thinking does that mean that the manager has to do everything! What about delegation, sharing the load, organization structures and everyone else in the organization etc, etc. Where and what is their responsibility?

I now imagine a clamor of murmurers saying "if only **they** would DO a bit more" things **might** indeed get done around here. It's always **their** responsibility **they're** the bosses **they** only sit around in their offices drinking coffee and giving instructions.

Having been a 'boss' for most of my working life I've heard it all. But you see the axiom 'if it is to be it's up to me' is right for everyone. We all share the responsibility of making the organization or company operate well. We all have an opportunity and indeed responsibility to contribute appropriate to our skills experience and gifts etc. The better this is understood and taken on board by everyone; the better will be the result. Everyone benefits!



Right now we are looking forward to the next club year with a few new people needed for the committee. It's no good saying **they** can do it or **they** can find someone or I don't know enough about the club or hobby. These are but excuses and can be construed to be selfish. We don't need 'know it all's' we need willing people who are open to learn and who can work in harmony with others. Yep, people just like you. So don't hold back, offer yourself for election to the most appropriate position or assistant position.

Safety:-

'If it is to be it's up to me' is equally appropriate on this subject as well. Since I last wrote on this subject, only a few months ago, I've heard of several more fingers in props incidents, not all at Burley Field thank goodness. Also I heard about an incident where a member was landing in the correct manner and another came at his model in the opposite (downwind direction) possibly nearly causing a collision. An argument is alleged to have followed. This is not good enough if it did occur safety is clearly the responsibility of every flyer. If any club member sees this sort of flying happening take action straight away. Speak to the flyers involved and report it to a Committee member at the field right there.

I was also brought to account at the last club committee meeting when we were discussing the subject of model restraint whilst being prepared for flight. One member spoke of the issue of electric models being 'armed' ready for flight on the tables in the Hay Shed. I immediately got defensive and pointed out that there isn't a standard method of arming electric models. There are almost as many types of 'arming' methods as there are Electronic Speed Control Manufacturers. However, we who fly electric powered models have exactly the same responsibility to prepare our models for flight in a safe manner as do all the rest of the club members with other forms of powered systems.

This is a subject the Committee will be considering further however, I use an elastic strap fixed front to back on the table with the front wheel and tail wheel captured by the strap. That works for the smaller models. Larger ones could be restrained by the traditional methods, until we come up a better system.

So, you see, if **safety** is to be it **is** up to me!!!! (and You!!!!)

Notice of Annual General Meeting of P&DARCS Inc

Wednesday 1st August 2007, 8pm
Dingley Community Centre Marcus Road Dingley



Ever thought of joining the committee? There are always unfilled positions so even if the current committee re-stands we will always have a spot for you.

Clean Cups by Pearl



On Sunday the 27th Wal and I went to the Nepean Club for their scale

rally. It was unfortunately blown out and will be rescheduled.

We hadn't been there before and were most impressed with their field. I was particularly impressed with their tidy kitchen and clean cups. I was so amazed I looked at about a dozen and could have drunk out of any of them.

We are of the opinion that we have one of the best clubs in Australia and probably the best kitchen and the worst cups!!. Do you drink out of dirty cups at home? Or does your wife clean up after you? I have trained Wally but I can't be their to train all of you. Please take some pride in our beautiful club and its surrounds.

Many hands make light work so if you clean up after yourself that means less work for the **volunteer** committee and a more pleasant drinking experience for the next member to use that cup.

For Sale

- 1 AXI 1420/14 brushless motor, TMM Controller 80 amps, 3500mamp Lipo Battery **\$250**
- 2 Platinum Charger – handles lipos, nicads, metal Hydride **\$90**
- 3 23cc Zenoah petrol motor Ex Cond **\$250**
- 4 80 size 4 Stroke Saito Motor Ex Cond **\$150**

Please contact **Angelo Favaloro**
0418 344779

Also For Sale

Zenoah 38 never used. **\$350**
Contact the editor,
David Walsh - 0409 133 591

VMAA News

As the resident VMAA Rep I thought it only appropriate that I start to keep you informed on just what the old VMAA are up to. Apart from the VMAA trophy I would bet that the majority of our members wouldn't really be aware of anything that they do.

Well apart from the big things like organising the Nationals when it is Victorias turn and the model display at the Avalon airshow they are quite busy. The committee would attend a number of shows such as the working with wood show during the year to promote our hobby. They do numerous educational nights with groups such as the scouts & also with schools.

On top of these promotional things they also once per month get down to business and do a heap of the boring administrative stuff like authorising display permits, appointment and review of model inspectors deal with problems or information requests from clubs etc etc etc. This once a month meeting can often roll on until 1am in the morning.

Anyway I have now popped myself on the mailing list for the VMAA minutes so I don't make their meetings I can still report on matters arising from their meetings that may interest you. So here we go:

- 1 The VMAA annual general meeting will be held on the 12th July at the Koonung Uniting Church Hall, Belmore road East Balwyn.
- 2 The VMAA have purchased a frequency scanner which will be available for clubs to borrow. The VMAA will be formulating a borrowing procedure for this equipment.
- 3 An Application for a new club being formed in the Werribee area "the Werribee Wanderers" was received.
- 4 Display applications were tabled for Geelong 3-4th November 2007
Hamilton 24th -25th Nov 2007
Warracknabeal 20-21st Oct2007
- 5 The Jet Aircraft Association also applied for their fly in days at Mangalore airfield on the 26th August 2007 . 28th October 2007 16th December 2007, 30th March 2008, 27th April 2008 & 25th May 2008
- 6 Registrar reported that there are currently 2714 members of the VMAA which is 89 more than last year. We currently have 67 clubs in Victoria
- 7 VMAA Trophy. The VMAA website will be used to promote next years event and after a recent debrief a number of slight changes will be made to some events.
- 8 Education officer reported a recent education session held with the 11th Box Hill Scout Group.
- 9 A report was submitted by the Northern group on maintenance works at the State Field.
- 10 The treasurer submitted the budget for the 2007-2008 year.
- 11 I have also been suggested that the VMAA purchase the State field from the MAAA. Apparently under the original agreement purchase terms are extremely favourable.
- 12 The VMAA directory may be revised and reprinted later in 2008



Next OS engines Fly in.

A tentative date has been set for a repeat of this fantastic event, Mid November 2007.

More details in our next newsletter. So make sure you have an OS powered model at the ready.



Wings by Wal

Wal Schubach

The awarding of wings originated at the P&DARCS .

The committee in ancient times of the club decided that the club should start a training program. This program was called The Godfather system.

When a new member joined and required help one of the club members was appointed his Godfather and was responsible for his training. When the student reached the required standard, which consisted of six simple manoeuvres, they were presented with their wings.

The wings were embroidered on cloth. You will note some of the senior members still wear them. In the centre of the wings is the State shield with the State crown on top.

After more experience and good clubman ship a senior pilot patch was awarded and later an Instructors rating patch.

Later the wings idea was adopted by the VMAA for Victoria and later by the MAAA, who developed it into the Bronze and Gold wings of today



C-59 HISTORY

Mug of the Month.

Howdy there mugsters... time to hold your breath and see if you were caught out this month. Well, if your eyes have already scanned the page and spotted the pictures you should know if you have been caught.

So **Come on Down !!** Paul Somerville.

*Now here a story, of a man named Paul
Who has two lovely models and one took a fall
So unperturbed he scooted off home
To bring back his spare so the day wasn't blown
Into the air he bravely soared
Watch this manoeuvre , Paul did roar
Bay 13 stood to attention and turned around
In time to see number two, hit the ground.*



Come on Down!! Alan Holloway and Andrew Mysliborski.

Andrew I can forgive as everyone leaves their transmitter at the field eventually but Andrew left both of them. Not really a mug worthy story I know, but I have sacrificed Andrew to point out that our next mug has gone one step further than forgetting his Transmitter and truly is mugworthy. He forgot his ENTIRE Aircraft !!! Alan Holloway welcome to the Mug page.



Allan Holloway wearing the cheesy grin that you wear when you realise that your little fo-par has been caught on camera

That a lot of model to forget about !



Andrew Mysliborski Posing for the camera whilst assembling his Mig. Definitely Mugworthy Behaviour

A Fairy Tale

Once upon a time there was a band of young men who envisioned their own Camelot. Being men of foresight and wisdom they created their own Australian version of Camelot, a land of milk and honey, a vast oasis, in the land of Cardinia. A land where the sun always shines, the wind never blows, and it never rains (well at least that bit is true). Men such as King Ceasar, Prince Dibble, Wally The Wizard, and slave Hawkes (who never stops working), reined over the land. For many years the mighty men of Camelot swept all competitors before them, and they established a fearsome reputation.



Alas, over the years, time took its toll, and one day it was time to hand over the reins to the next generation. A generation who could enjoy the fruits of their forbearers efforts.

One wonders what these once mighty men thought as they sat on the clubhouse verandah and watched their once mighty creation again compete in the VMAA trophy. For a number of years their creation had not performed well, and this year they only just beat the VMAA committee (ie a handful of guys) and a small country club that only entered 4 events.

Ok, Ok, but I did say at the start it was a fairy tale, but at least **THE ENDING IS TRUE!**

We have the best facilities in the land, and we own them! We have the best people in the land. So, what's the problem? Dare we suggest apathy?

I guess the question for all members is, are you prepared to accept your club being thrashed by the other clubs every year? Do you feel comfortable with that, or are you like us, and have sufficient pride to want to personally do something to change the situation?

Well, a group of us say it's time to draw a line in the sand, and return this club to it's rightful place! Next year will be different. You ALL need to get behind the effort in whatever way you can if we are to succeed.

To start the ball rolling we are issuing the following challenges:

- We all know the Bay 13 group's skills at building things around the field. We challenge them to now build a spectacular plane for the most unusual model, and anyone else who thinks they can outdo them.
- We challenge the helicopter guys, the fun fly guys, the pylon guys, the scale guys, the glider guys, and the aerobatic guys to get together as a group and find a pilot capable of being competitive at the VMAA trophy in their field, put their name forward, and help them train for it.
- At the last event, electric appeared to be the best bet for Musical Landings. We challenge the electric guys to build a competitive model.

What can you personally do?

- If you can fly, practise for an event and nominate for it. If we get lots of people who want to go in an event, that's great for us and bad news for the other clubs.
- Regardless of whether you can fly or not, make your feelings known. Tell every committee member you see that you support the effort and want to see the club do better next year.
- Come along to the event and support your team. Recently, most other clubs have had many more supporters than us, and it's our home field!

You never know, but if we start doing these things together as a group, we just might not only win the trophy, but also enjoy our flying more.

Let's put the MIGHTY back in the Mighty P&DARCS.

STRANGE Aircraft! Richard(Dick) Ryland

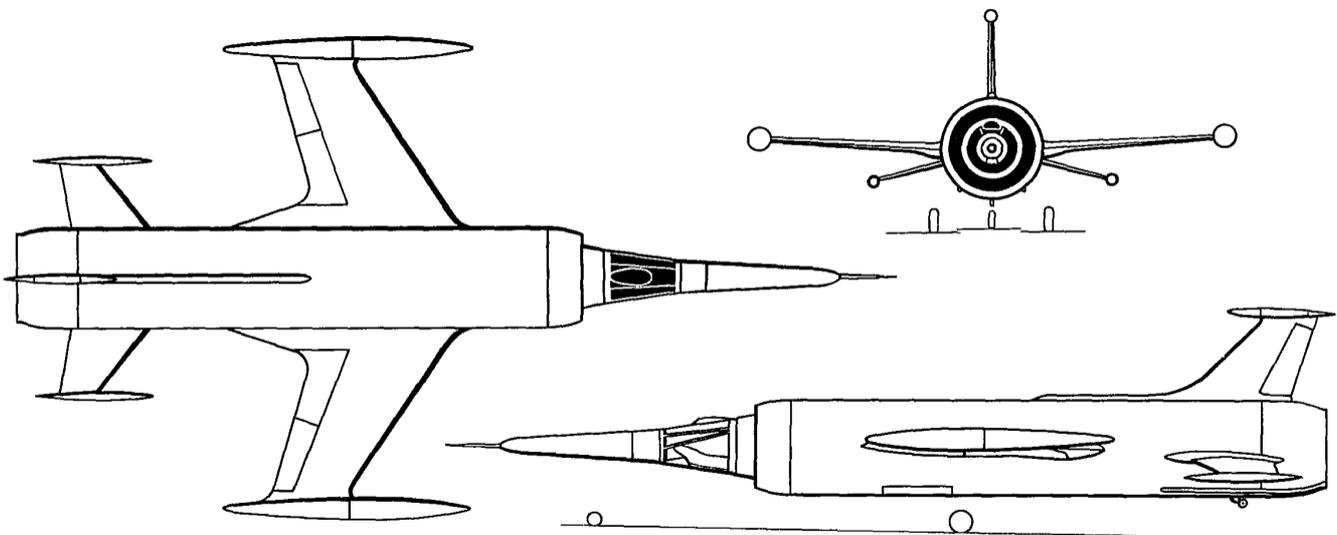
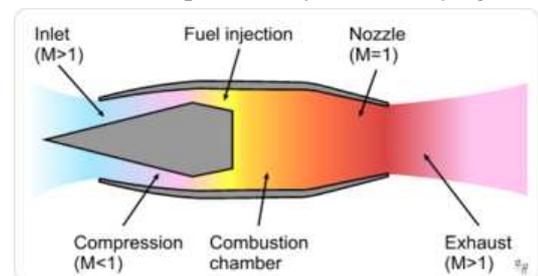
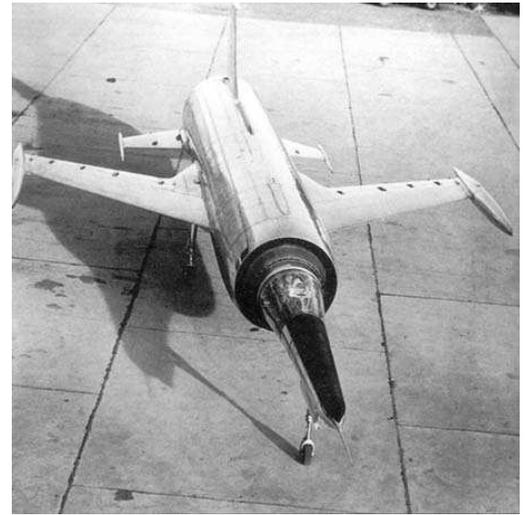
Leduc Ramjet

The ramjet engine is an extremely attractive proposition as it so simple, having no moving parts at all, and produces great power at high speeds. There is indeed no such thing as a free lunch though and the ramjet will not function at all below about half the speed of sound. Doh!

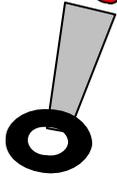
Rene Leduc, a Frenchman, was an early ramjet enthusiast. He designed a prototype engine and aircraft during the 1930's but was forced to hide his enterprise during the German occupation of France during WW2. By 1946 Leduc was ready for gliding flights which in a manner reminiscent of the first space shuttle Enterprise's flights were made after being carried aloft by a modified SE-161. The first powered flight came in 1949. During the next few years various versions were flown including one with extra engines on the wingtips, sharply swept wings and the last one had a jet engine as well as the ramjet enabling it to take off on its own power. This one made over 140 successful test flights but great difficulty was had in throttle control and the shape of the fuselage (not area-ruled) limited it to sub-sonic speeds. Conventional jets with afterburning were now beginning to do what the ramjet had been aiming to achieve so the program was cancelled in 1958.

The Leduc aircraft qualify as a strange aircraft not only because of the radical power plant but also because of the extraordinary fuselage configuration. The air intake circled the entire fuselage and the cockpit had to be positioned in what looked like a spike coming out of the engine. This severely limited cockpit space and indeed the pilot did fly it from a lying position. The later variants of it would have looked totally futuristic in the fifties and indeed they still do!

The jet engine was quite new then and it was not at all unreasonable to expect that an even better technology might overtake it but it was not to be. However, even as I write this, preparations are underway to launch a rocket-borne relative of the ramjet engine, the *scramjet*, from the Woomera Rocket Range in South Australia. The quest for ever greater speeds goes on.



Take-off in a Taildragger



Knobby Clarke

The Learning Curve continues

Let Knobby take you on his journey to the mastery of model aircraft flight

There are some fortunate people who are natural flyers. There are other people like me who eventually succeed by trying to understand why things happen and by mentally rehearsing all the actions that go to make up the successful control of those things. These thoughts are intended to encourage my fellow strugglers.

I like to fly something that looks realistic in the air and doesn't look like an over-grown model.

This presents me with a number of problems, the first of which is that most propeller-driven aircraft are tail-draggers. That means that the two most dangerous manoeuvres, take-off and landing, require a substantial set of additional skills that were not required in flying trainers. Let me explain.

With a tricycle undercarriage, it takes skill and determination to get the propeller to hit the ground. On take-off, you can get away with the following technique:

- Open the throttle fully
- Steer the model with the rudder if necessary to keep her straight down the runway
- Wait until she lifts off, when you can ease off the rudder

If the nosewheel is really badly bent backwards due to your poor landing technique, you may need to use elevator to get her unstuck. This leads to a typical take-off run where the model veers unsteadily from side to side rapidly gaining speed. Up elevator is then applied and she leaps into the air like a startled gazelle, but, of course, this doesn't matter because she's a trainer: she won't stall and the power will drag her upwards.

When you are learning, you hit the propeller every time you land, but by the time you pass your Bronze Wings you should have got the hang of giving her a bit of Up at the crucial moment so that the nose-wheel isn't the first thing to hit the ground. It's not that hard to do something passable and essentially impossible to nose-dive, drive the propeller into the ground and do a forward roll so that she breaks the fin.

Let's see what happens when we apply this familiar technique to a scale taildragger.

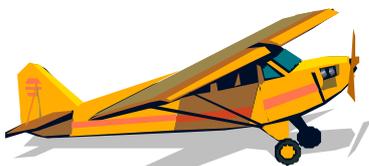
On a really calm day, so that things are not further confused by a crosswind, line the model up pointing straight down the centre of the runway. Open the throttle. The model immediately nose-dives, killing the engine. Why?

1. Scale taildraggers generally have the undercarriage located in the wings relatively close to the centre of gravity. Many full-sized taildraggers were prone to nose-dives when taxiing.
2. Even in good condition, grass model runways are rather worse than the scale equivalent of trying to get a Spitfire or a Hurricane to take off across the furrows of a ploughed field. A properly scaled runway surface would be about as good as the average prepared green for lawn bowls or croquet.

So the first technique is to gradually open the throttle and to hold the tail down with copious amounts of Up elevator until the model has gained a bit of speed -- just as the fighter pilots were taught.

At this point, we need to stop and consider the second important problem associated with scale models. It's called the Reynolds Number. For an aircraft wing, the Reynolds Number is derived by multiplying the speed of the aircraft by the chord of the wing and then standardising the number by multiplying this result by a constant determined by the units of measurement. The science of aerodynamics tells us that similar wings operating at the same Reynolds Number are operating under the same aerodynamic conditions. When we scale an aircraft we multiply the wing chord by the scale factor. We also try to fly the aircraft at scale speed. This means that the operational Reynolds Number is reduced by the square of the scale factor which implies that all models operate at very low Reynolds Numbers and hence have a tendency to stall at relatively high scale speeds. Models built for aerobatics and most trainers have disproportionately large chords to reduce this effect, but with scale models the beautiful tapered tips are particularly prone to stalling.

Now let's go back to our take-off.



The model is gaining speed as we steadily open the throttle and we are firmly holding the tail down to stop the propeller hitting the ground. Then suddenly, she leaps into the air and does a creditable imitation of a crocodile's death roll. Ouch! Why?

Because the tail is held low, we are operating at a high angle of attack and the Up elevator we are using will ensure that as the wheels leave the ground the angle of attack will, if anything, increase.

Tail dragger operations Cont:-

However, we are well down the Reynolds Number range. The roots of the wings are lifting but the tips are close to the stall or even stalled. The slightest use of aileron to lift a wingtip will actually increase the drag and ensure a complete stall of that tip which will, therefore, drop further. More aileron deflection to try and lift the falling tip simply increases the drag and over she goes.

Either using the same model or, if the crash was sufficiently severe, a replacement, let's go back and do the take-off again. Apply full Up elevator to hold the tail down.

Gradually open the throttle and then, as she accelerates, release the stick and let the tail come up. Now she is running along on the main wheels, still accelerating, with the fuselage essentially in the normal flight attitude. Except that as the tail came up she swung viciously right and left and is now off the edge of the runway racing towards the car park. Why?

There are two factors at work here. The first is that the torque driving the propeller is trying to twist the fuselage the other way about its horizontal axis. The second is that the propeller acts as a gyroscope. Rotating a gyroscope about an axis at right angles to its axis of rotation will cause it to generate a torque about the third axis. As the tail comes up, the propeller is being rotated in exactly that way which generates a torque about the model's vertical axis. The usual, but not invariable, result is that the model kicks to the right as the tail comes up followed by a slew to the left as the left wheel digs in with the engine torque.

With a tricycle undercart trainer, the tail is already in the flying position so there are no gyroscopic effects and with three wheels on the ground the model has sufficient rotational drag in the vertical axis to hold her straight enough for a self-guided take-off. Let's go back to the start again.

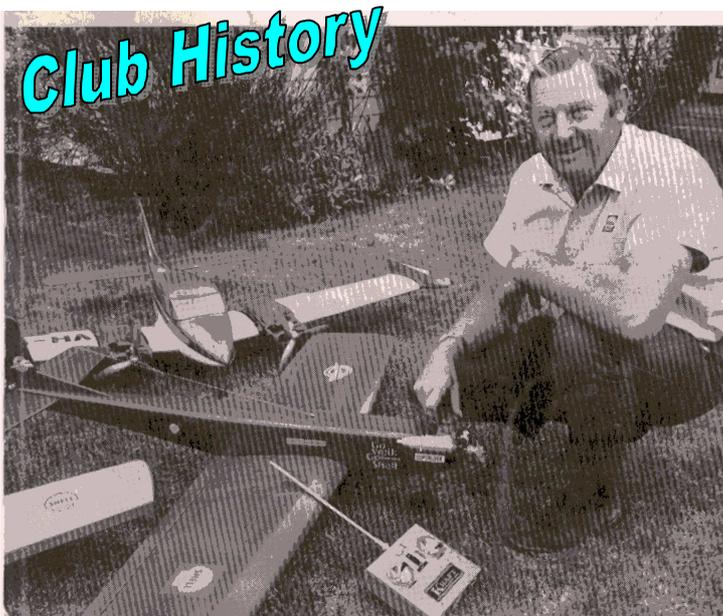
Apply full Up elevator, gradually open the throttle and at the same time ease the stick forward so that the tail comes up gently thus avoiding the gyroscopic swing.

The model now has very little directional stability and will swing to the left with the engine torque. You will need lots of Right rudder to keep her straight but you must reduce this steadily as the speed increases and the rudder and fin become increasingly effective.

Now she should be under control, running along on the wheels straight down the runway and accelerating as you continue to push the throttle fully forward.

Resist the old habit of hauling her into the air with Up elevator and let her climb off gently when she wants to. You will probably still be holding some rudder. You need to release this as soon as the wheels leave the ground and start steering with ailerons.

Phew! Of course, all this happens in a few seconds which is much less time than you will have taken to read this description. But within those short seconds everything will happen. I hope that the explanations given here will help you to prepare yourself for those events and that the preparation will make the difference between success and failure.



FLYING HIGH WITH SHELL

Shell Dealer Malcolm Caesar, proprietor of Dale Motors, Parkdale, Vic, operates a successful suburban service station business primarily specializing in mechanical and body repairs. But, as can be observed in the picture left Mal has also a hobby with a difference. At most week-ends, or whenever business permits, he can usually be found with a number of other enthusiasts at some Melbourne park, sports arena or school fete flying radio controlled model aeroplanes. These aerial displays naturally attract a crowd... and the Shell image never misses out for Mal frequently wears his Dealer uniform and most of his 18 planes are decorated in Shell colours and transfers.

Malcolm Caesar has been interested in this hobby for 16 years now and is a past president of the D.&D.A.R.C.S., which in layman's language stands for

15

Together

— the Dandenong and District Aircraft Radio Control Society. This club has over 80 members and meets monthly to study plans and specifications for new and better model designs.

Some customers are interested in the same hobby and Mal sells about 8 gallons of Shell Racing Fuel A each week to these enthusiasts as fuel for their small aircraft.

The twin engined scale model Cessna 310 in the photo left is worth approximately \$800 and for the mechanically minded each motor develops 1 h.p. at 12,000 r.p.m. Radio control enables complete manoeuvrability even at distances of 5 miles from the land based pilot and up to 12 model planes can operate in the one area by using radio control units of differing frequencies. ■

Now here's a blast from the Past. A very young Mal Caesar as he appeared in an article published in the 1972 edition of the Shell Petroleum Magazine.

Take a look at the radio Mal is using. Haven't seen that famous brand for a long time now. Yet it was the brand to own back then.

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Did you Know ?

The first Monty Tyrrell was held on the 14th April 1991 and was known as the P&DARCS Scale Rally. It wasn't re-named until it's third year after Monty had died.

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