# Futaba Newsletter



Making a difference and putting back into the hobby by way of promoting it has been a lifelong burning ambition of mine. RCM News magazine gave me the vehicle to do that nationally. Recent changes at the helm at VMAA has renewed my interest to make a difference. Locally. If I could merge nostalgia with modern by racing against people I want to race against in a well run event, promoting the benefits of competition flying concurrently, that would be great.

Inviting the public to watch those two activities should not be mutually exclusive. Should it? Not to my way of thinking and perhaps that puts me in the dinosour division. That starts with completing a few of my late father's scratch built racing models. What to do with them is a project for next year.

It has been quite a few years since I have competed in a subjectivley judged competition. The Spitfire will compete in the flying only category in





Crosswind into the main runway at Ian Watts field in Shepparton

futabaproshop.com.au





Fortunately the rail was not broken

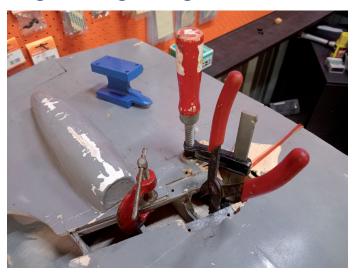


Warming the 24 hour epoxy

the MAAA Scale Nationals in October. A bit of time in the hangar almost completed after the right rear undercarriage rail had worked loose. Again. My first crosswind landing with the Spit is probably what created the problem.. Gusty conditions had eased at the 2023 Shepparton Mammoth Scale. A few seconds after take off what appeared to be a lull vanished. Leaving me to wish I had not indeed taken off. My first attempt getting back in was aborted. Cranking in more right rudder revealed the limit before



Tight fitting blue gloves are better





Replacement canopy sourced from Peter Goff's Scale Aero Products



Hangar rash presented as flack damage after it was shoehorned into this car ..... once



the nose pitches down markedly. Full power and not quite enough up just as thumped on in a go around. It climbed away, landing gear still attached. Much to my surprise. Two more attempts resulted in an acceptable touchdown. Towards the end of the landing roll the right hand wheel departed company. The walk of shame revealed a broken Robart oleo strut. No fault of the product, the model is well over the manufacturer's upper weight range. The other task was replacing the canopy after an old Fokker fell on it. No not me. I wasnt drinking. It was a Fokker DV11

One modification I made to Dad's build was removing the significant amount of lead glued to the



Single pilot operation



fibreglass cowl and re-distributing it into every nook and cranny I could find. Couldn't place all of the four kilograms of ballast, subsequentyl I spent quite a bit of time flying one very touchy model thanks to a now very aft Centre of Gravity.



Tank empty, gear down the CofG is 195mm from the leading edge. Up elevator measured at its widest point is 35mm - 39 mm down produces a good flying experience



Chord at this location is 570 mm.  $195 \text{mm} \setminus 570 \text{ mm} = 34\%$ 



Centre of Gravity sorted at last - Stable approach with 2mm up elevator mixed and forty five degrees of split flap futabaproshop.com.au



# Anyone who has dealt with problems in between rounds at a competition would appreciate the easy access with through this one piece hatch

It took a number of flights to find a good setup. This meant taking the thing home, off with the cowl to squeeze in more lead and returning to the field. The amount of elevator travel is a most important part of that process. Don't make the mistake of having lots of elevator throw, just in case. With 35 mm of up elevator and the CofG as per the pics on the previous page this percentgae would work on any mark of Spitfire because the overall wing planform never changed. Only the wingtips.

#### Scale Racers

Screwing the radio back into Mr Smoothie is easy enough. Once I got it back down from the ceil-



Managed to get it down without busting it

ing that is. The motivation is there now that I have another engine. The old engine runs fine except it is on my last spare piston, ring and liner. Which is why it has to run a pretty rich needle setting. The cowl is such a tight fit that an on board ignitor isn't an option so the pocket starter has to stay connected until it is lined up for take off. Otherwise it drops a cylinder and Smoothie won't maintain altitude on one.

There is a bit involved operating this model. The last time it flew was at Burley Field and 9kg with 2.5 inch wheels and not much propeller clearance, the grass was a problem. The procedure was to push it out on to the strip, line up, run the engine at full power for a few seconds, back to idle, pocket starters



This spare engine was given the once over by retired engine man Robyn Hearn



Doors ajar at Adelaide Golden Era Air Races



More ducting for the rear cylinder required

off and go. I haven't been to the field since the new mower was purchased. Shorter grass should make for a less complicated take off. Hopefully with the new engine I can taxi turn and go.

The humongous undercarriage doors offer up another challenge. They tend to depart the airframe at 250 kph. Tried rolling inverted after take off and retracting the gear while turning in the hope the negative g force would help ensure they stayed locked. They rely on air pressure to remain in the up position so that was a waste of time. Nutting out a servo operated door lock would be the go but I will fly it again before going to that effort.

The fuel bill is up there compared to petrol power. These 60cc twin cylinders really chew through the methanol. One and a half litres doesn't last very long but when it's on song, it is something. Its last few flights demonstrated the value of telemetry. The prop that sounded and appeared better in the air was 20 kph slower. If I can get the rear cylinder cooling sorted so that piston doesn't lunch itself, I should be able to lean the mixture and see what it tops out at.



Smoothie handles well. Being so old now the very thin trailing edges have a few warps and that ultra thin RG 14 wing section hangs on surpsingly well at slow speed. I found that out gliding back on a dead stick approach forty five degrees to the main runway. Gear left up until the last few seconds, the better Bolly prop cannot be replaced, I chanced it. Hauled the nose up, dropped the flap and dragged it over the grass on the edge. Dropped the gear and made it.

That's one advantage of not slowing the retraction and extension to achieve scale appearance. The Spit-fire is the same although now it has had quite a few flights and reliable, I might slow the gear as it goes up. That's where everyone sees it. Just like the big ones I select gear down on downwind in the circuit so I won't bother with the other way.

There was quite some controversy when the full size home built entered one of the big National Air Race meetings in USA in the 1930s. Far more streamlined than the big radials, retractable gear and a Menasco six cylinder racing engine it look promosing. Famous competitors such as Roscoe Turner and



Miles Hawk Speed Six with the ubiquitous Desert Aircraft DA 85 engine



a few others nobbled it. By following the rules. Only a certain number of aeroplanes were allowed up during the qualifying period and the chaps decided to take so long the time ran out. Hence Mr Smoothie did not get to qualify. So much for sportsmanship.

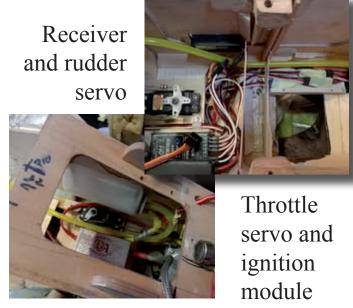
With a bit more oomph Smoothie should be competitive with 85cc petrol in the Hawk Speed Six. That just has to have the engine put back in. The



Choke servo and ignition cut off



Shielded from heat







Bristol Freighter



Super Sabre

internal canister muffler made this a complicated installation. It was good to go quite some months ago but alas the engine would fire then stop. Fuel tanks in and out a number of times but no improvement. Finally I sent it back to Desert Aircraft with what I felt was a carby problem. Thanks to their impeccable after sales service the engine came back in a couple of weeks. Depending on the prop I'm hoping the Hawk will top 300 kph.

There are a few of Dad's other scratch built models to be completed. Maybe next year. The quarter scale Eindekker was scratched from a Lou Proctor plan. It has flown but the lower undercarriage assembly needs replacing. Plenty of power but no noise I am thinking to remove the 6S LiPo setup and replace it with a petrol engine. After a little structural work the wing on the F-100 and it's ready to start the most arduous task. Sanding and painting. The Bristol

Freighter is something Dad used to work on at Essendon Airport. There are a couple of build projects of my own lurking but right now there is quite enough to keep me occupied for some time.

Having run a few events myself I am looking really forward to just kicking back, shooting the breeze and having a fly at the Nationals.

#### Leslie V12 Model Aero Engine

This Spitfire is one of Trent Smith's excellent glass and foam kits I bought from a Facebook ad last year. It turned out to be bigger than the 1/5th scale Spitfire I was after. Thus no real use for another one. Plus, as has been revealed, I have way more than enough unfinished models now. Sometime next year it should be finished and fitted with this marvellous V12 engine manufactured by Philtech in Melbourne.

My involvement in this project is test flying. The

first flight was in a 1/5th scale P51 and we are just about ready for its next outing. We are planning to bring the model to a few events but that is on the proviso all goes well. My biggest worry is the undercarriage structure. The V12 runs really well but Top Flight ARF balsa ply airframe is five kilograms over the usuual weight. By the way the engine is scratchbuilt



www.philtech.au

futabaproshop.com.au

right here in Melbourne and production engines are now well underway.

#### SCALE AIR RACING

Air Racing is such great fun. As a competition it is relatively easy to get started. Knowing how to tune the engine to last ten laps, no pylon or sideline cuts and not busting the aeroplane landing will get you half way up the finishing order without too much effort. Getting to the pointy end in any pursuit takes experience. Learning racecraft and from mistakes is part of that. Here are a few of mine.

I have had some absolute crackerjack Texan races at Adelaide and Cootamundra but to date a neck and neck ten lapper with a Golden Era model has eluded me. Managing to get third place in the 1997 final at Adelaide in 1997 with the slowest model was a thrill. A change of prop it was competitive, six months later at Yarra Valley. On the pace? Yes. Reliable? Nope. ¼ inch diameter Robart pin hinges on rudder kept failing. My F1 pursuits have been interrupted due to the great deal of time spent dealing with and reporting on agendas, which in my view, and others, have been detrimental to attracting and retaining new competitors.

My first racing experience was the 100 Lap Pylon at the DARCS club in Brady Rd Mulgrave (Melbourne) Ten pit stops with one simple rule. The engine had to be stopped and started. A junior entry my 3.5cc three channel trainer was slow compared to the other .40 and .60 models. 62 laps completed when they had finished and the Contest Director asked me to land. Back in the pits I noticed quite a few models had been moved to clear a pathway. This was due



Failed to complete 100 laps



### Having reviewed and competed with the Midwest kit, CM Pro and Seagull ARF I've moved my Texan on

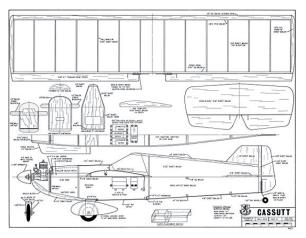
to my consistent landing approaches. Swinging out wide exiting number 3 pylon to line up my trainer descended over the same part of the pits each time. At head height. That experience helped me come up with a better landing mousetrap a decade later.

My second experience was racing my 2.5cc Cassutt in the new Quarter Midget class. Model was scratch built from a plan. Engine was a loop scavenged Super Tigre 19. With the 1972 Nationals in Geelong looming I built an El Bandito from a kit for the world beating Schnurle ported Aussie designed and manufactured Taipan 2.5cc engine. More power and faster I only had a few flights before the Nats.

Dad gave the model an almighty shove off the start line and it I arrived at Number 1 well before the rest. Banked then yanked it tip stalled and I froze on the up elevator. The rapidly descending orbit completed 360 degrees and proceeded through the pylon flag marshall position, at head height. The pack arrived and not one marshall was to be seen. They had



Quarter Midget pylon



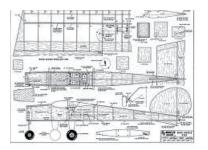
all dived for cover. The other three competitors were granted a re-run. No spare model I became a spectator.

Two other memorable racing incidents at that particular nationals. During a test flying session a competitor walked out behind a QM after it took off. The model torqued to the left. Recovered after a tight a 180 degree turn it hit the chap in the stomach. Luckily just a few and bruises. The other was a rather disturbing case of red mist. Four engines wailing as I held Dad's FAI pylon racer on the startline, the next competitor lost radio signal. It started working just before the starting flag dropped. "Let her Go" yelled the pilot. It flew fifty yards rolled on its back and went in. Another competitor's prop shed both blades and the engine screamed in what was known as a shaft run. Stopping the engine was achieved by jamming the spinner into the ground and pushing hard.

My first scratchbuilt Das Little Stick came to grief flying from the dry lake bed adjacent the MARCS field at Boundary Rd. Holding the model on the ground for full throttle runs sometimes threw the tyres off. good fun. Not so the full throttle landing. Undercarriage departed taking the tailplane with it.

A few years later I entered the 100 Lapper at the DACRCS field in Brady Rd with a purpose built Das Little Stick. Dad had designed a Northerner biplane







#### Das Little Stick by Phil Kraft

for F3A aerobatics and its 10 percent thick aerofoil was much thinner than the standard 20% in those days. He lost interest in it and Cliff McIver ended up flying it in biplane aerobatics comp at Geelong. VMAA Trophy. Couldn't find the plan so I built the model from memory. With that thin wing. Test flight was first thing Sunday morning on the day of the race, after the two hour drive from Geelong. Oh dear, it was really unstable. Turned out I miscalculated the tailplane area. Not enough. We scrounged every bit of lead and shoe horned in as many small heavy items that would fit into the nose. CofG now on the leading edge, with forty odd degrees of elevator throw it flew okay. Landing config was easy. Hold full up elevator and fly it in on throttle. Good to go.

To this day a radio brand is needed to be considered a big player in the model importing business in Australia. Kraft versus Futaba was part of family life back then. At Flitleine Models that changed to Sankyo. Anyway my .OS40 schnurle powered Stick with its thin wing was quicker than Futaba agents' Tony Cincottta and Jim Davies .60 model. Rounding



Skyleaf is a modern ARF F3a design by Futaba



#### Yours truly packing a mail order

up their slower plane I learnt another valuable lesson. Sacrificing one or two seconds to ensure separation turned out quicker than passing them through the turn at pylon 1. Having my miniscule tailplane chomped up by their propeller did turn out to be cheaper though. As my super light airframe turned into confetti part of it went down the throat of their Webra 61 engine. They were the Oz agents for Webra. I think the model was a Gazariator which Jim glided back to the strip. Piston and liner destroyed they were out for the day too. When passing or being passed I now ensure I can see daylight above or below.

A few years after that I built another Stick. From the plan this time but with the same thin aerofoil. The rules stated the engine had to be stopped and started as part of the ten pit stops. The model was either carried back to the startline or taxied. Nowhere did it say either of those methods was mandatory. Setting up to approach slow was much better that landing long. That wasted a lot of time. A simple Dubro nose wheel brake would have helped. (Dad was the Dubro agent)

Nowhere in the rules was any mention of wheels. Extra speed would be a possibility if one buried the Bridgetones into the fuselage. Futaba Sales Australia were the agents for Goldberg retracts. Kraft Systems Aust had Multicons. Retracts added potential complication and weight but both would not fit into a Little Stick. Take off method was not stipulated either. So that lot was open to interpretation.

Hence I came up with this concept. Engine was the OS .40 rear rotor FAI pylon. The latest version had a digital throttle. Power was zero or one. Otherwise known as a venturi. Extra speed from retracting the wheels was easy. No undercarriage. Belly landings would shorten the landing roll. Dad was the Oz Agent for MK Products whose biggest tank was 400cc. Which just fitted into the Stick. Run time was thirteen and a half minutes

### FAI pylon engine in a Dad Little Stick?



The plan was do seven pits stops in the first seven laps. Re-fuel then go. A second re-fuel and run to the finish. The only change was landing. The first was a bit long and it skidded along the grass strip. Damien Milk had to run out and back then hold the nose high, shake the clunk back, start the engine and launch. Landing number two I hit the shut off rolling into number two pylon. Rounded number 3 and side slipped it into the long grass just a few yards short of the strip. Repeated that again and again. The starter shook his head and muttered "this is going to end in tears. It went swimmingly. We broke one Top Flite toothpick wooded racing prop during the second re-fuel and won the event. Some competitors grumbled and the rules were changed next year.

When DARCS changed to P&DARCS the NEC Three Hour Enduro was a club entry pylon race event. Don't remember the rules but three pilots were required to rotate through fifteen minute sessions. Battery packs were changed on the hour. Standard engines in sports pylon at the VMAA Trophy became a joke when the two predominate city clubs with experienced pylon race members blew the rest away with higher revving "standard engines." My answer was a standard pumped OS 46 back plate mounted into a .25 size Pilot brand plastic Little Toni ARF. To mess with the oppositions' heads it had a left hand crankshaft. "Holds the nose up through the turns" that bit of bullshit stopped when the flag dropped. Model was competitive but a couple of cuts knocked me out of contention. Doh!. Sorry, that term hadnt been invented yet.

Test flying Dad's Minuteman FAI Pylon racer with a world beating Ranjit Phelan OPS 40 at LD-MFA the engine rpm jumped when the quarter wave tuned pipe kicked in. The model had never gone so fast and I had to shut it down. A mere few seconds of aileron flutter almost melted the solder link through the hard nylon servo arm. Phew. Completing the last round without any cuts I had third place in the bag at a Nationals in Sydney That evaporated when the fresh new glo-plug was a dud and it couldn't be changed in time. The previous heat someone over rolled rounding the base pylons and recovered. A metre or so over my head. A big fright to say the least. Actually it scared the crap out of Dad and my-



## Bleechers for spectator seating cost a grand back then

self and we demanded a re-run. That's when I learnt to actually check if a brand new glo plug was not a dud.

Tightening up the turn rounding number three pylon in the 1997 Adelaide Golden Era Air race my Hawk Tip stalled. I managed to gather it up just in time and avoided busting the no fly zone. That incurs a sideline cut. Over flying the pits meant disqualification. That first event was a big learning curve for all concerned. Including the organisors. With hind-sight the course was a little short and short to account for the much faster models from experienced racing competitors from Qld, NSW and Victorian competitors.

With that experience in mind when I set the course for Yarra Valley later that year it was offset





and angled away to allow much more room for the turn back towards the main straight. Dad and I did not want anyone standing under the flight path. Pilot, callers, officials were all behind the safety sideline. Some competitors bitched it wasn't how pylon racing was done. Airframe, equipment / pilot failure and the occasional mid air collision experienced at Cobram and Sandown ended up where it was supposed to. As per the risk assessment. Safety was not compromised. Failsafe and flying standards set by myself is part of that.

It is easy for nay sayers to slag racing off as dangerous and I have had more than enough experiences dealing with that mindset too. Being responsible for others flying at the World 50cc Motorcycle Grand Prix and the F1 Air race at Sandown, those ops have all been scrutinised after such complaints were



Twenty five years after VMAA got the shits with this event the orginisation has finally changed for the better





made. Questions by the regulator answered, those events continued. Being invited back to fly at Victorian venues hosting V8 Super Car, World Super Bike and Historic motorsport events for another three years would indicate the property owners were also satisfied with the displays. Ability to start the engine quickly and operate crosswind is why I was given cart blanche by Clerk of the Course Tim Schenken to put the model up any time there was a lull in proceedings at the Historics.

Adelaide Golden Era started out with a huge selection of prizes on offer. That inspired a lot of interest and those days are long gone. Prize money offered at Sandown wasn't really needed either. It added a little intensity but the main reason was to









Credentials good enough for the Clerk of the Course



Ballarat Airshow too

develop a relationship with sponsors outside the hobby business. Hence the venue that could cope with a large crowd. The people I invited to race at Sandown were all experienced competitors. Keen to win the thing and promoting the hobby in front of a crowd was enough. I used that same line to get the Australian Grand Prix Corporation to back down from insisting our nine helpers purchase their own entry tickets for the 1991 500 cc Grand Prix.

Another sticking point was not flying from the race track. Sandown Model Expo in England featured multiple World F3a Champion Hanno Prettner flying off a make shift wood runaway on the horseracing track. Unless we could operate from the bitumen I was not going to ask three top model flyers to operate their expensive models from the unprepared grass infield. Sure we could have flown from the



Putting skills learnt from simple club fun flying competitions to good use



### On time 1971 F3a style was a one minute to start and take off

mowed grass alongside the race track but that would have looked amateurish. Walking the model out on to the racetrack holding the fin was also not on. We taxxied into postion.

That event is run to a published miniute by minute schedule. For example "Media Bus departs pits 12.52Pm. Course car departs pits at 1.52 PM. Course Car leaves circuit at 153.PM". Ability to start and tune the engine then get into the air in one minute was not a problem. Refusal to attend otherwise and assuring management we would not hold up an international motorcycle race sealed the deal. We delivered professional radio control flying displays at four locations. I sealed that deal by flying the Sukhoi at Albert Park lake.

#### Formula 2

With a 35 cc petrol engine the aeroplane is a cinch to operate while one aquires race craft. These engine rules are set to provide an entry level playing field. I won't bother with engine claiming etc. Tried that



Entry fees from sixty eight entries over two days did not pay for the concrete and shade structures. The public did



### If this style of ARF racing is to continue its future rests with F2

at the completion of an event at Cootamundra. That didn't work. The person concerned, who had read and understood the rules, refused to remove the donk in question to be sent off to be checked. This is much simpler. Less aggro for all concerned.

After I have flown a telemetry equipped Nemesis with two of the most popular engines, F2 will have a static rpm limit. Propellers will have a pitch range limit of ten to twelves for 35 cc. Perhaps thirteen inches of pitch if the smaller 33 cc engine is at a disadvantage. This provides enough scope for a competitor to find the best prop for an OS GT33 ,side or rear exhaust DL 35 or some other brand. This will go some way of preventing an experienced pylon competitor going the traditional high rpm two stroke tuning route and blowing everyone away.

Reduced throttle mixed with gear down is how F3a competitors passed the noise test when that was introduced. That practice was negated when moni-



Shaded areas are great but if those structures are in front of the thirty metre line it blocks out the view for spectators

### Celebrating model aircraft competition flying, then and now

From the 1970s through mid 1980s. Most model aircraft clubs in Melbourne held annual RC airshows. Proceeds from gate takings were often split between a local charity and funding improvements at the field. This does not happen now. Short five minute demonstrations of a multitude of disciplines, all in one day, ties in with VMAA's sporting club emphasis.







FAI F4C Scale

FAI F3J Gliding

FAI F3D Racing









IMAC

FAI F3A Aerobatics





Helis then and now

FAI F5B



Drones



Scale Glider Tows

Jets



Free Flight



Scale Air Race

lassic Pattern Old Timer

toring competitors' channel ouputs through an oscilliscope was introduced at world championships. I've been advised that is not feasible with 2.4 GHZ.

Here's a simple alternative. Anyone found with that in F2 will be disqualified from the meeting. Random testing at the end of each race will be done when the engine is at operating temperature. This will be at the Contest Director's discretion. If the RPM limit is exceeded the round will be zeroed. The competitor can race the next round if he or she accepts the invitation to reduce the top end RPM to comply. End point or ATV setting will be recorded. Model memory name/number verified. This gives anyone the best chance to be competitive with experienced racers and the thrill of close racing. Which is how Texan started out.

F2 has a very low noise footprint too. Noise should be of concern to all model clubs. All it takes is one grumpy neighbour and there is a problem. F3a led the way decades ago. A flying neighbourly procedure is also covered in the Speed Weekened rules. F2 prize money will be sponsored by myself, Futaba Pro Shop. We're racing for a trophy in the other categories.

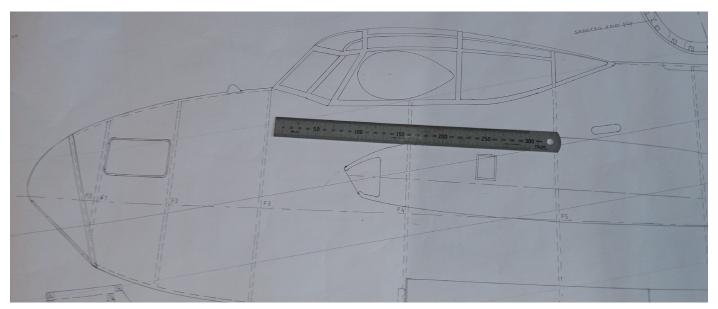
Donating to charity seems to be a thing of the past for model aircraft not for profit clubs. Presenting ourselves as good corporate citizens also benefits when unscheduled landings more vertical than horizontal arrive into a neighbouring property. Part

of the entry fee income will go towards a donation to the Royal Children's Hospital Good Friday Appeal. My mother worked in the cancer ward for a number of years.

Promoting the benefits of competition flying are important. Not just to me. There are people I want to race against in a well run event who think the same way too. A few of them are still interested to build a racer too. Inviting the public to watch both those things should not be mutually exclusive. The usual method to cover trophies and use of a flying field has been entry fees. Entries pulling out a week before due to a weather forecast is now another thing to deal with. That won't embarrass me again either. Organising a competition or a public display and



Formula One race driver Oscar Piastri started out racing RC cars at Templestowe Flat Track Racers



DH 89 for twin 60cc two strokes

inviting a few people to participate is not a problem either. That list of names is already done.

Getting a few hundred spectators along to a club field isn't that hard either. Model car clubs represent a good opportunity to attarct new members into aeromodelling, nevertheless, convincing members their club won't be besieged by a shit load of new people remains a national problem. Not that I've ever seen that happen. Next year the plan is to run a closed meeting with around forty entries. Ultimately I would like to repeat the race-meet air show formula. A small part of that would be honouring my father's contribution to aeromodelling with a builder's category. If that happens, people will have to get used to check flights.

Ineveitably nay sayers who have done nothing, next to nothing or repeated the same thing years on

## RAA flying test looming



Tassi Trip



The Evacuators





Commercial RC flying

end will voice their negative opinions. This "been there done" piece may read a bit like a resume but its just an overview to put my air racing agenda for 2026 out there. Up front to give the do nothings time to shoot me down by again trotting out the line "he can't be trusted". You'd be flat out hearing a good word from a chosen few. WG Gilderlsag has ensured they know who they are.

To some extent this air racing thing has appeared to have become all consuming. Not really. Growing up in the model business meant that promoting and competing has been part of the job description. I have a few other interests to keep me occupied for the remainder of this year.

I have set of plans for a 1/5th scale De Havilland Mosquito. My favourite WW11 aeroplane. Building that from scratch and just flying it around does not interest me, however, racing the thing does and that would be something that would attract people to watch. If you are interested in having a go at air racing contact me direct on 0418 662 557.

Stephen J Green. AUS 5932.





If pass my RAA flying test the plan is flying to Sth Australia to entice this chap to get out his fabulous models and go racing again