DURATION TIMES

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Newsletter Number 196

September - October 2015

Cabin/Sport Model Scramble Rules - Version 2 October 2015

An updated version of the Cabin/Sport Model Scramble rules is published on page 3. These are still basically the same rules but with some safety related changes.

The first is to limit the engine capacity to 1.0 cc. Main reasons are that a model may inadvertently enter the pit area during the event and also to limit damage to oily fingers when starting the engines.

The second change is to clearly spell out the landing area for the models. This will be designated by the Contest Director on the day and will follow the same type of layout as for all our other events with a boundary behind the pits and with left and right boundaries. A far boundary may not need to be specified as pilots should be aiming to stay close to the pits on landing. Also the flight at the end of the competition (usually after 30 minutes) must also land in the designated landing area.

Finally pilots must NOT enter the landing area until the model has landed.

These clarifications to the rules basically reflect the way the event has been flown of late and brings the rules into line with the manner our other events are flown.

Peter van de Waterbeemd

President

Golden West Oldtimer Competition - Parkes

Parkes Miniature Aero Club Inc. — Nelungaloo Field.

14th-15th November, 2015

** On field catering both days and camping on field ($10 per person per night)

(Campers please note: power, toilets and hot shower are now available in the new amenities block.

Please let John Watson know (0427 522 920) if you intend to camp so he can open up Friday night)

Saturday: 9:15 Start: Gordon Burford, Nostalgia, Duration

Sunday: 9:15 Start: ½A Texaco, Texaco, Tomboy Scramble

Get together in Parkes Saturday Night

For further information email Peter (Condo) Smith **peter_condo@yahoo.com.au**

Note: Modelers must produce a current MAAA membership card

Duration Times is the official Bulletin of SAM 1788

SOCIETY OF ANTIQUE MODELLERS OF AUSTRALIA INCORPORATED

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SAM1788 Oldtimer Events for 2016

Proposed Calendar for 2016

February 6 – 7	Alan Brown Memorial Shield **Nostalgia**, Duration, Scramble, 1/2A Texaco, Texaco	Orange
March 5 – 13	1/2A Texaco Postal Event	Various
March 24 – 28	SAM1788 Championships All MAAA events plus sport events.	Canowindra
May	Veterans Gathering	Muswellbrook
May 14 – 15	Wyong Old Timer Weekend Burford, **Standard Duration**, Scramble, 1/2A Texaco, Texaco This meeting will include Electric Old Timer events.	Wyong
June 4 – 5	Vintagents Old Timer Meeting Various MAAA events.	Gratton Field
June 11 – 12	New England Gas Champs Burford, Duration, Scramble, 1/2A Texaco, Texaco	Tamworth
July (Mid-Month)	**West Wyalong** (Details to Come)	
August 6 – 21	1/2A Texaco Postal Event	Various
26 – 28 August	Oily Hand Weekend **Cabin Scramble**	Cowra
September 10 – 11	Coota Cup **Old Timer Glider,** Burford, Duration,1/2A Texaco Texaco	Cootamundra
October 1 – 2	Eastern States Gas Champs **38 Antique**, Burford, Duration, Scramble, 1/2A Texaco, Texaco	Wangaratta
November 12 – 13	Golden West Old Timer Burford, Duration, **2cc Duration**, Scramble, 1/2A Texaco, Texaco	Parkes

From the President:

SAM 1788 recently ran its first competition at the Free Flight Society field at West Wyalong The field is located about 14 km from town and is in very flat country. Surrounding properties sported crops of canola, wheat and oats. It is a great field for just about any form of aeromodelling with no height limit or noise restrictions. We anticipate that we will run at least one event there every year as it offers great flying experience and improving camping facilities. It is possible to arrive early and stay a few days afterwards and fly other types of models. Unlike other venues where we enjoy the support of local clubs who offer on field catering, all meals need to be self catered. Many thanks to the FFS for sharing their field with us.

I look forward to seeing all members and their guests at Parkes. In the meantime: Keep safe!

Secretary's Report

In this issue of Duration Times I present the draft events calendar for 2016. The final calendar will be published in the November – December edition of Duration Times.

For 2016 your committee has looked to flying the lesser flown events once more other than at the SAM1788 Champs at Canowindra. Nostalgia, Standard Duration, Old Timer Glider, 38 Antique and 2cc will now be flown throughout the year. A postal event for 1/2A is also included.

Cabin Scramble will be flown at all events, including the Cowra Oily Hand Weekend. Electric Old Timer will be included at Wyong.

I have started the pre planning for the 2016 SAM1788 Champs next Easter. A program and entry form will be included in the next issue of Duration Times. If you are intending to come to this event, book your accommodation early, Easter is a very busy time.

I have a SAM1788 committee scheduled for the Parkes weekend, if any member has an item they would like considered please let me know, prior to 11 November 2015.

Grant Manwaring, Secretary

Cabin/Sport Model Scramble Rules - Version 2 October 2015

Model: Any cabin, or semi scale sport model, designed before 1960. e.g. Tomboy, Cardinal etc.

Engine: Any engine up to 1.0 cc or replica thereof produced before 1960. (0.6cc MP Jet diesel engines are also permitted)

Flying: Models are to be launched from the flight line into wind.

Model must land in the designated landing area behind the flight line as determined by the contest director. If any part of the model crosses the designated landing area boundaries when landing, this will result in a zero flight score. If unsure ask the contest director.

At the end of the competition (usually after 30 minutes) the model MUST land in the designated landing area, otherwise a zero flight score.

Pilots must not enter the designated landing area until the model has landed.

Transmitters must remain on the flight line whilst the model is retrieved.

The model must have the engine stopped BEFORE returning the model to the flight line.

The engine must be hand started, no electric fingers.

No runners are allowed. Pilot must retrieve the model.

Time Keeper: Please arrange yourself a time keeper beforehand. Score cards will be provided.

Minimum flight to count is 30 secs.

Maximum flight is 3 minutes (180 secs).

Flight times to be written down in minutes and seconds.

Record all flights even if less than 30 seconds in duration.

Most time in the air, over the allotted time, wins. (The length of the contest will be announced on the day but is usually 30 minutes).

Eastern States Gas Champs - West Wyalong - 3 and 4 October

The competition at West Wyalong was a success by any measure other than the wind on Sunday.

SAM1788's first official visit to the Free Flight Society Adrian and Jo Bryant Field at West Wyalong started out extremely well with a magnificent day on Saturday 3 October. The weather was excellent with virtually no wind all day but the temperature did get into the low thirties early in the afternoon and stayed there for most of the day.

The "field" consists of a very large flat paddock of about 750 acres with a homestead toward the centre with lots of outbuildings. The old machinery shed has been reused for showers and toilets with the installation of two prefabricated shower/toilet units. The Free Flight Society intends to make this facility into a modelling mecca and will further develop the camping facilities on the site. It will be possible to stay on site for a number of days provided you bring your own food.

The Free Flight Society (FFS) was conducting some of their own events on the other side of the homestead on the Saturday and Sunday but as the facility is so large there was no overlap. We became used to the short high pitched screams of engines for four or five seconds as their powered models hurtled skyward. Unfortunately free flighters tend to enjoy their art in the far too early hours of the morning when sensible modellers are asleep.

Saturday morning's flying started with **38 Antique**. There were 10 entries with 5 reaching the fly off. Conditions for the rounds were perfect with lots of maxes, however in the fly off no one maxed and it was over quite quickly. Seems that Forster 99s are the motor to have. Col Collyer's lost sight of his Trenton Terror and it flew a long way. It had not been recovered by the time Col left on Monday.

A round of **Gordon Burford** was flown before lunch with the remainder of the rounds flown after. The temperature was above the thirties but there was virtually no wind. Again 10 entries with 5 going to the fly off. The usual suspects placed.

By mid afternoon **Duration** was flown. The editor left his model at home because he didn't read the event notice properly and was kindly loaned a model by Peter Scott. Conditions were still excellent with 5 out of an entry of 12 reaching the fly off. Unfortunately Col Collyer's wing failed on his Super Quaker resulting in a spectacular arrival not far from the launch point. Col was not having a good day.

The FFS provided (at a nominal cost) a superb spit roast lamb meal in the evening. The meal was superb with seconds and thirds available. A very large crowd estimated at 80 persons was gathered in the back yard where we sat around a fire made with two very large tree trunks. All very cosy. Adrian Bryant recited a poem which lamented the loss of the old log fire in modern society. He was heard in total silence by all there - even the many children.

Sunday commenced with **Tomboy Scramble**. There were 5 entries but by the time the event started at 9:30 am the wind had risen and was causing some interesting manoeuvres in the very light models. The event was won by Peter Smith who relied on his accurate landings to minimise retrieval times. Well done Peter, especially given his dodgy knee. Second was Kevin Fryer with Peter van de Waterbeemd third.

By the time **1/2A Texaco** started the wind was quite strong with wind speed being monitored during the first two rounds. By the end of the second round it was regularly exceeding 7m/s and flying was postponed till noon for a further reassessment. At noon the wind had not abated and further flying was abandoned. The 1/2A Texaco result was based on the best flight in the two rounds.

Texaco was not flown.

Champion of Champion was **Peter Condo Smith** with Kevin Fryer second and Peter Scott third'

SAM1788 is planning to run an event there next year probably in mid July. It will be well worth attending and staying there for the sheer enjoyment of the property and the camaraderie of fellow modellers.

Eastern States Gas Champs - West Wyalong - 3 and 4 October

Antique

Name	Model	Engine	Score	Fly off
Kevin FRYER	Cumulus	Forster 99	1800	580
Peter SCOTT	Rec Breaker	Forster 99	1800	511
Peter J. SMITH	Westerner	Madewell 49	1800	454
Grant MANWARING	RC1	Burford 5cc	1800	392
David BEAKE	Westerner	Anderson Spitfire	1800	208
Colin COLLYER	Trenton Terror	Ed 3.46	1784	
Peter van de Waterbeemd	Long Cabin	GB 5cc	1781	
Jim RAE	1938 Rambler	Forster 29	1770	
Basil HEALY	1936 RC1	Sparey 5cc	1260	
Dave BROWN	1938 Flamingo	O&R 60	600	

Gordon Burford Event

Name	Model	Engine	Score	Fly off
Peter SCOTT	Zoot Suit	Taipan plain	900	354
Grant MANWARING	Dixielander	Taipan plain (T)	900	261
Peter J. SMITH	Spoofem	Taipan plain	900	250
David BEAKE	Ollie	Taipan plain (T)	900	244
Bob MARSHALL	Zoot Suit	Taipan Plain B	900	185
Basil HEALY	Dixielander	Taipan Plain B	860	
Jim RAE	Amazoom	Taipan BB	847	
Geoff POTTER	Spacer	Taipan Plain B	832	
Peter van de Waterbeemd	Tomboy	Taipan BB	719	
Kevin FRYER	Dixielander	Taipan B/B	289	

Duration

Name	Model	Engine	Score	Fly Off
Peter J. SMITH	1941 Playboy 115%	McCoy 60	1260	880
Kevin FRYER	1941 Playboy 112%	McCoy 60k	1260	845
Dave BROWN	1938 Bomber 85%	Saito 56 4/	1260	769
Paul FARTHING	1941 Playboy	YS 53 4/	1260	720
Peter van de Waterbeemd	170% Stardust Spl	Saito 62 4/	1260	117
Geoff POTTER	1941 Playboy 105%	Nelson 40	1260	
Grant MANWARING	85% Bomber	Saito 62 4/	1254	
Jim RAE	Lion Cub 130%	Saito 56 4/	1190	
Brian DOWIE	Playboy 105%	OS 40 2/	902	
David BEAKE	1938 Bomber	McCoy 60	769	
Peter SCOTT	1941 Playboy 112%	McCoy 60	291	
Colin COLLYER	Super Quaker	Rossi 40	L/O	

1/2a Texaco

Name	Model	Score	Fly Off
Jim RAE	Pine Needle	402	0
David BEAKE	1942 Stardust Spl	290	0
Peter van de Waterbeemd	1941 Lil Diamond	269	0
Peter J.SMITH	1941 Lil Diamond	258	0
Kevin FRYER	Cumulus	241	0
Peter SCOTT	1942 Stardust Spl	222	0
Basil HEALY	Stardust Special	L/O	0

Cabin Scramble

Name	Total Time
Peter Smith	1414 seconds
Kevin Fryer	1084 seconds
Peter van de Waterbeemd	1027 seconds
Jim Rae	998 seconds
Basil Healy	917 seconds

Champion of Champions

Peter (Condo) Smith

Condo's haul at West Wyalong: a well deserved Top Gun!

Eastern States Gas Champs - West Wyalong - 3 and 4 October

West Wyalong.

A reasonable turnout of SAM fliers turned up for the first contest to be held here. Some came to see this new place and some to fly old timers, anywhere, anytime. The new shower and toilet facilities, and flight-line room were good. I think that we need to decide for the future what area we are to use as a take-off area so that it can be mowed before-hand. Some of the smaller models in 'Antique' got tangled up with the daisies, but we overcame that by hand-launching problem models. The bigger models had no trouble.

The Saturday events got underway in good weather. '38 Antique being flown first. Five people made the fly-off. Kevin Fryer beat me into second place with Condo third. Kevin used his favourite model type – used in everything including ½ A Texaco – a Cumulus. This was powered by a Forster 99 as was my Record Breaker. Condo flew a very nice Westerner with a Made-well 49.

Next up was Burford, again, perfect conditions. The fly-off was a low time event, with the winner – me – flying a Zoot Suit, but managing only 354 seconds. Grant Manwaring was second and Condo third. I had flown off to the right, over the farm house and ended up with much better air.

Duration ran late into the afternoon. Peter van de Waterbeemd left his model on the kitchen table at home so used my spare. After a rapid repair to keep the tail on the model (the fuselage on the Stardust is quite fragile in many places) he got into the fly-off. The winner was Condo, with his Playboy – McCoy spark combination, followed by Kevin Fryer with his Cumulus, again a McCoy up front, and Dave Brown flying his old maid of all work, the 85% Bomber, came in third. My model was set up fine in the end but a slide control on the throttle got bumped forward so that when I shut the throttle at the end of a perfect climb, it didn't stop! When I worked it out and it did stop it was very high and 3 seconds over the allotted run time of 40 seconds. Sometimes slide controls can catch you out.

The Saturday evening 'do' went well, with plenty of lamb and veggies for all. Local lamb on a spit and the vegetables were cooked in camp ovens. A lot of people including quite a few locals attended. It was good to see a lot of kids having a good time, and being well behaved. There was a big camp fire, all we needed was a bush band. Plenty of free wine – the wine waiters did a good job, too good in a couple of cases!

Sunday morning was different. I went to fly free-flight – combined vintage, where even a short engine run and D.T. meant a long retrieve. Luckily the paddock allows the use of a van. I put in my three flights and was pleased that my Eureka went into a perfect glide every time in trying conditions. I think Roy's Swiss Miss ended up miles away, in a tree on a three minute flight.

The radio scramble was about to start when I got to the SAM part of the field, I didn't have a model for this as I hadn't expected free flight to be over so soon. It was interesting to watch close-up. People are getting very efficient at doing this. I was impressed with Jim Rae's Buggaboo model – neat and strong, not sure on the results though.

½A Texaco was flown in a very stiff wind. I'd brought the one model that I'd found hopeless in wind and turbulence. I finally fixed this by giving away the wing and tail, then destroyed the fuselage. I salvaged the hard ware. I couldn't be tempted to fix and fly it again! Plus, extra space for my new Li'l Diamond in the model storage area. Jim won this event with his Pine Needle, making a score of just 402. Next up was David Beake with a Stardust Special, nearly 100 seconds behind, and third was Peter van de Waterbeemd with 269 seconds. These are not fly-off times but the overall times for the whole contest. Enough said!

We didn't fly Texaco as it was too windy. Condo won 'Top Gun' – no surprise there. Col Collyer lost a model – now you see why I use a tracker and have my name and address on my models, Col. I'm sure it will turn-up as it is mainly open country.

I thought that it was a good weekend. You can't do much about the weather, but, as ever, the company was good and Gail and I enjoyed ourselves.

Thanks to the Free Flight Society for hosting the event and providing the spit-roast. West Wyalong should be a top flying venue for all events in the future. A lot of people have tried hard to make this happen. SAM should support their efforts by running events there in the future.

Peter Scott.

Eastern States Gas Champs - West Wyalong - 3 and 4 October

Scene from Saturday evening's BBQ with FFS president Terry Bond (in the yellow T shirt) addressing the crowd. This shot shows only a small number of the total attendees. Though out of focus, the number of stars visible in the night sky was quite amazing.

Left: Antique 38 winners: Condo Smith 3rd, Kevin Fryer 1st and Peter Scott 2nd

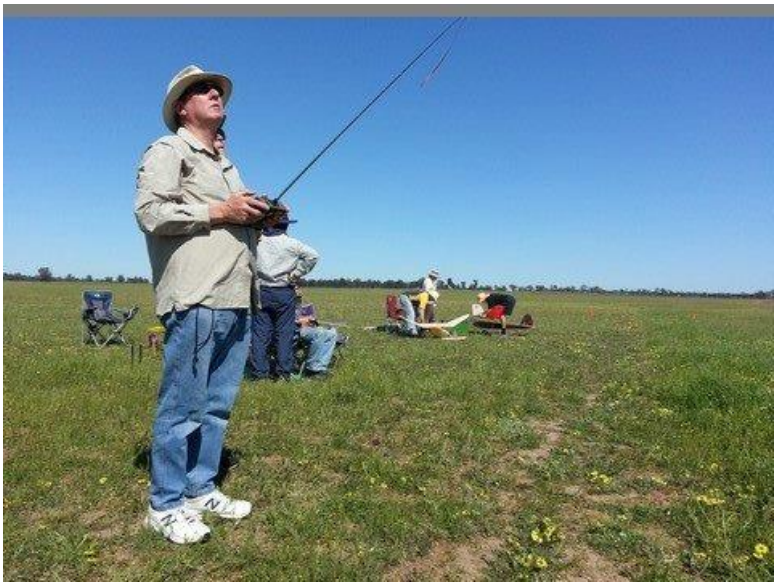
Left: Gordon Burford winners: Grant Manwaring 2nd, Peter Scott 1st and Condo Smith 3rd.

Eastern States Gas Champs - West Wyalong - 3 and 4 October

Right: Scramble entrants just before the strong winds started. All models survived. From the left: Jim Rae, Kevin Fryer (yes its NOT a Cumulus), Peter van de Waterbeemd, Condo Smith and Basil Healey

Below Left: Steve White and Dave Brown in repose in the shade. Again Whitey taking it easy!

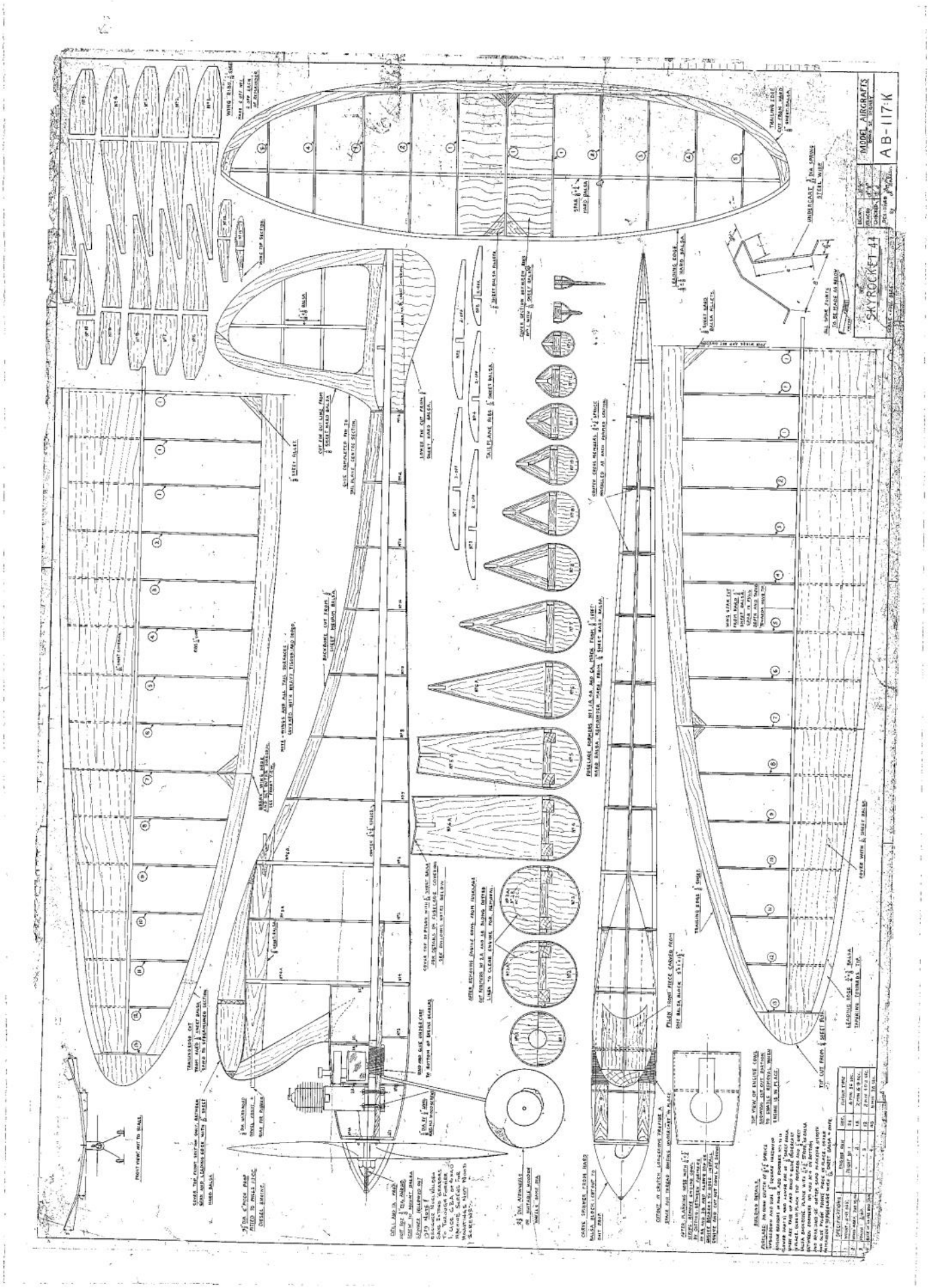
Below right: The three wise men, Jim Rae, Don Sutherland and Brian Howie



Left: Our secretary hard at work.

Right: May and Condo plying their trade.

SKYROCKET 44



Skyrocket 44

The plan on the previous page is of the Skyrocket 44 from Model Aircrafts in Bond Street, Sydney. It was designed and drawn by N Walden and checked by K.S. Perhaps someone may know of these gentlemen and their involvement on modelling. The plan does not appear to be dated. My plan has a 1979 note (by whom?) which said that "designer Noel Walden says etc" which suggest that the designers given name was Noel.

Engine is a Mills 1.3cc and recommended prop was a 9 1/2 x 6. It suggested the spinner be carved from hard balsa block: cut out to suit prop.

Does anyone know when this model was designed?

John French built this model in both 44" and 66" versions. Photos are below.

Left: Taipan Mk11 2.5cc twin ball race circa 1972

Below: Taipan Series 66 1.5cc circa 1966-67

How to iron Monokote into tight spaces

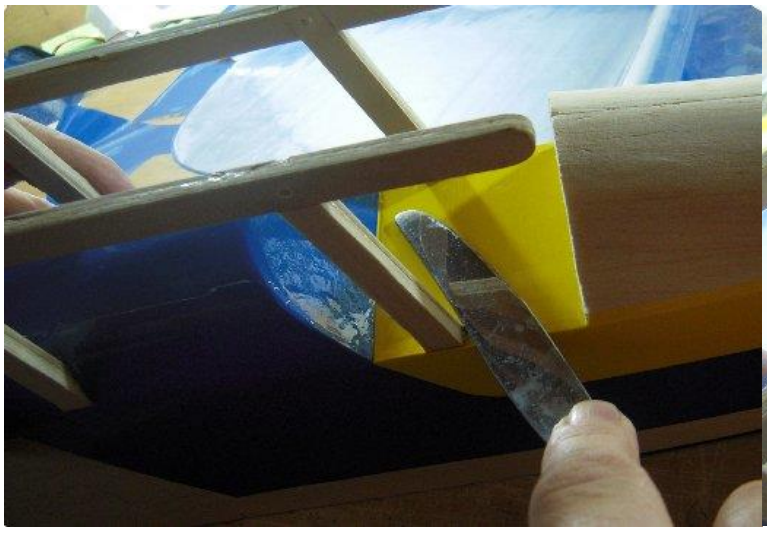
I used to have a lot of trouble ironing Monokote into cockpits and other small places where a standard iron will not fit.

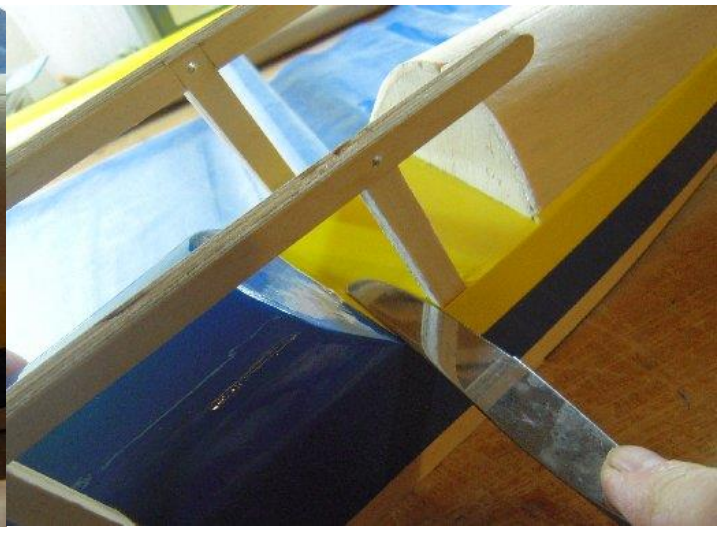
You can buy a tiny iron called a "trim sealing tool". I had one of these for a short time, but the temperature control was inaccurate, and the shape was not very helpful. So I got rid of it.

A better solution to this problem is a butter knife. Heat it on your iron for about 30 seconds and use it

like an iron. It could also be heated with a heat gun, but it takes a bit longer. Heat is transferred a lot better by contact with the metal iron.

The knife will fit into tiny spaces where an iron won't, and it will reach a lot farther than the trim irons that you find in the hobby store. I used a butter knife to iron the entire cockpit of this Small Wonder built from RCM plans.





You can try the same trick with a spoon for ironing fillets and other concave surfaces. Spoons have to be heated with a heat gun rather than an iron, usually.

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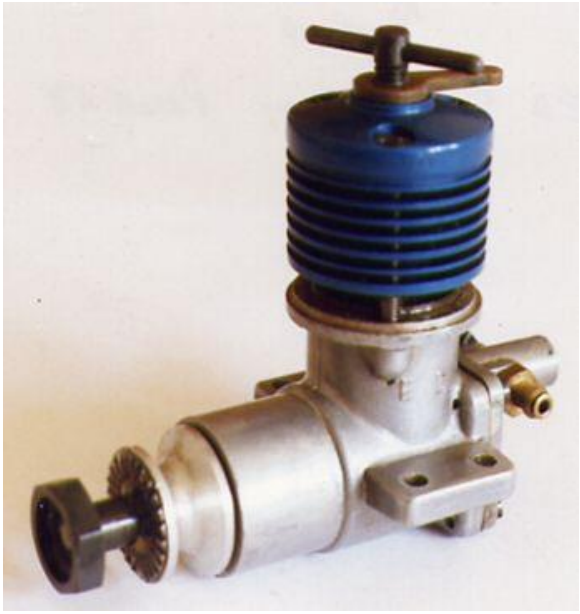
Model Engine Development



ED Super Fury 1.49cc

Some fifty years ago, my interest in small Internal Combustion engines lead to the production in 1959 of the ED Super Fury. There have been few if any explanatory articles about the design and development of engines in model magazines. This engine would be an ideal subject for model engineers to review and construct.

Over the coming months, new pages will appear that provide complete engineering drawings and constructions steps. It is hoped that this series will lead to a celebration of the engine's introduction and potential use by the Vintage Team Race group and others. In order for this to take place, participants must have sufficient time and resources to construct or restore engines. For those who lack the time or resources, I will also be making a limited batch of replicas to complement this construction series.

Gordon Cornell, October, 2008

Introduction

On my arrival at Electronic Developments Ltd (ED), development and production was in a poor state. The most recent introduction was the ED Fury, a reed valve induction motor that was not competitive in terms of price and performance. Design and development involves a sequence of procedures where development follows the design stage. Disasters occur when trying to take short cuts. It was apparent that investment had been made in tooling based upon previous experience in making the ED Racer, but despite the numbers made and sold, there were many defects. Problems with pressure die castings for the Racer had not been resolved; there is evidence to support this in the number of variations in crankcase design and material applied. Earlier engine designs had been proven using in-house gravity castings. The fact is that very few engines are original in concept. A review of current and earlier designs only reflects the probable pattern of development and fashion. A failing of this system is that limitations of the original design or concept are rarely made available, or published.

The purpose of the development program is to prove that the proposed engine can be manufactured to the intended standard of performance at an economic price. Production of a single prototype will not be conclusive because the production tooling and process will not have been verified. Manufacture of a batch of components is required to prove design modifications can be repeated. To achieve this, a number of fixtures and tools will be required. These are employed to ensure the components are as near as possible identical. Fixtures are used to secure the item to be

machined; gauges are applied to verify dimensions.

My task at ED's was to create a development plan to bring all designs up to a satisfactory production standard to satisfy the bank and directors. Creation of a plan is no simple task. You have to be aware of the current situation before the road to improvement can be established. The plan must be feasible in relation to finance and time scale as there is a significant difference between research and development.

The Development Plan

The basis of any plan must start from verification of the drawings, so as a consequence, all drawings were checked. This was followed by timing all machining operations to establish were improvements could be made. This defined the necessity to specify acceptable limits for manufacture, highlighting deficiencies in methods, machinery and tooling. An overall plan which reflected marketing, manufacture and design arose from this. Action was taken to rectify defective machinery and processes as a consequence of the checking process.

All engines had to be tested to determine priority; features which affect all engines can be more important than individual ones. At the time there were no computers to aid design analysis, the method applied was review, modify and test. Originally I used a simple chart to verify my modifications were logical. Today this is supplemented by my computer program, ICE. Where appropriate, this will be used in this series to appraise the design decisions.

Readers should appreciate the limitations of these early reports. Ron Warring normally indicated lower peaking speeds than those by Peter Chinn—hence indicated BHP was lower. Ron tested all engines on Mercury No.8 fuel, I found this to be unsatisfactory during the development of the Super Fury.

Readers should appreciate the limitations of these early reports. Ron Warring normally indicated lower peaking speeds than those by Peter Chinn—hence indicated BHP was lower. Ron tested all engines on Mercury No.8 fuel, I found this to be unsatisfactory during the development of the Super Fury. ED also sold bottled fuel which caused rapid build up of carbon deposits, the bottles were a problem hence a change was made to cans. It was important that we supplied the most satisfactory fuel for the engines in current production. As part of the development program Peter Chinn and I developed two new fuels, ED Economic and ED Super Zip. Model Technics D2000 and D3000 fuels have evolved from our co-operation of that period. ED Super Zip gave an increase in excess of 2000 RPM on the Frog 6x4 nylon propeller when compared to Mercury No.8. It was at this point that Isopropyl Nitrate became part of the fuel mixture. What we established was that the fuel did make a difference and that this must be matched to the design and operational speed.

The production engines of that time gave around 0.15 BHP from 1.5cc. My prior developments with the Frog 150R and TR 1.48 both exceeded the 100 BHP/litre mark. The Fury peaking at 14,000 RPM gave only 0.13 BHP (87 BHP/litre). During the development of my TR 1.48, my partner in that project, Peter Frazer, obtained a Super Tigre 1.5cc which featured rotary drum valve induction which gave 0.16 BHP at 16,000 RPM. Information via the model press implied that the new Oliver Tiger Cub Mk 2 was producing 0.17/0.18 BHP at 14,000/16,000 RPM (according to tests by Warring and Chinn—confirmed by published tests in 1961).

Testing

The original prototypes were proven by installation in what are known as team racing models. These are still flown by the BMFA control line section as Vintage models. Vintage Team Race features the best looking model aircraft of the 1950's using motors of the time and their modern reproductions and replicas combined with contemporary racing techniques to deliver some of the most exciting and easily accessible control line racing, at a sensible price. Hence there is an outlet to meet, use and discuss the engines produced. Models of this size fly at 80—100 MPH with engines of this type. International Class models fly at 130 MPH and cost substantial money. The permitted capacity for the engine is 2.5cc hence this is outside the scope and intention of this project. In all cases fuel tank capacity is limited this ensures pit stops take place. The participants rapidly improve there knowledge of fuels and the relationship between BHP and consumption.

My first team racer had been powered by a Taifun Hurricane which like the ED Fury, had automatic induction by a reed valve—a fashion of the time. Unfortunately engines with this system can start and run in the reverse

The second model, named *Jumbo Junior*, was powered by my TR 1.48, a front rotary vale induction motor. This was competitive with the Oliver Tiger Cub Mk 1. At this time the models were on the small side and very difficult to handle during take off and landing on grass. Propellers made of wood were frequently broken, plastic ones in most cases were not as efficient.

A larger model named *Leveret I* was the test bed for the Super Fury. This had a low wing with dihedral and a lifting wing section to aid take off. *Leveret II* featured a shoulder wing location and proved to be a most satisfactory model.

Leveret III—was an update to suit revised rules. The full size drawings were published as a pull-out plan in *Model Aircraft* for May 1962, together with a the first part of a two-part article on the new class. Scans of all these appear below. The drawings for Leveret II are also still available and for those who do not wish to build Leveret, there is a large range of alternative models on the vintage list. However it is important to have the Center of Gravity (C of G) in the correct position and to ensure that the model design selected is suitable for a rear induction motor.

An alternative to flight testing is to apply RPM checks on a series of commercial propellers. To do this a simple optical tachometer will be required. A Smiths 50000 RPM tachometer was used for the original development. The propeller figures from the original test reports may be impossible to replicate hence a set of figures based upon current commercial items will be established.

Eastern States Gas Champs - West Wyalong - 3 and 4 October

Left: Paul Farthing and David Beake with David's Westener.

Below: Action aplenty as Basil Healey and Peter van de Waterbeemd retrieve their Tomboy Scramble models.

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'A good landing is when you can walk away from the plane.

A great landing is when you can reuse the plane.

- On the wall of the student pilots rest room

'Don't ever be the first, don't ever be the last, and don't ever volunteer for anything.'

- US Navy Columbus AFB MS, 1974

'There is no reason to jump out of a perfectly good airplane.'

- Sign at Pope AFB C-130 Squadron that supports Fort Bragg Airborne

'If something hasn't broken on your helicopter, it's about to.'

- Sign over Carrier Group Operations Desk

'The only time you have too much fuel is when you're on fire.'

'Flashlights are tubular metal containers kept in a flight bag for the purpose of storing dead batteries.'

When a flight is proceeding incredibly well, something was forgotten.'

- Infantry Journal

'Five second grenade fuses last about three seconds.' -
- Infantry Journal

Nothing is so good for the morale of the troops as to occasionally see a dead general.

What a terrific job someone did at putting this video clip with great animation and period footage/ photos together.

Listen to the radial engine sounds and the background music.. Very entertaining.

https://www.youtube.com/embed/ywug11nLFfg?feature=player_detailpage