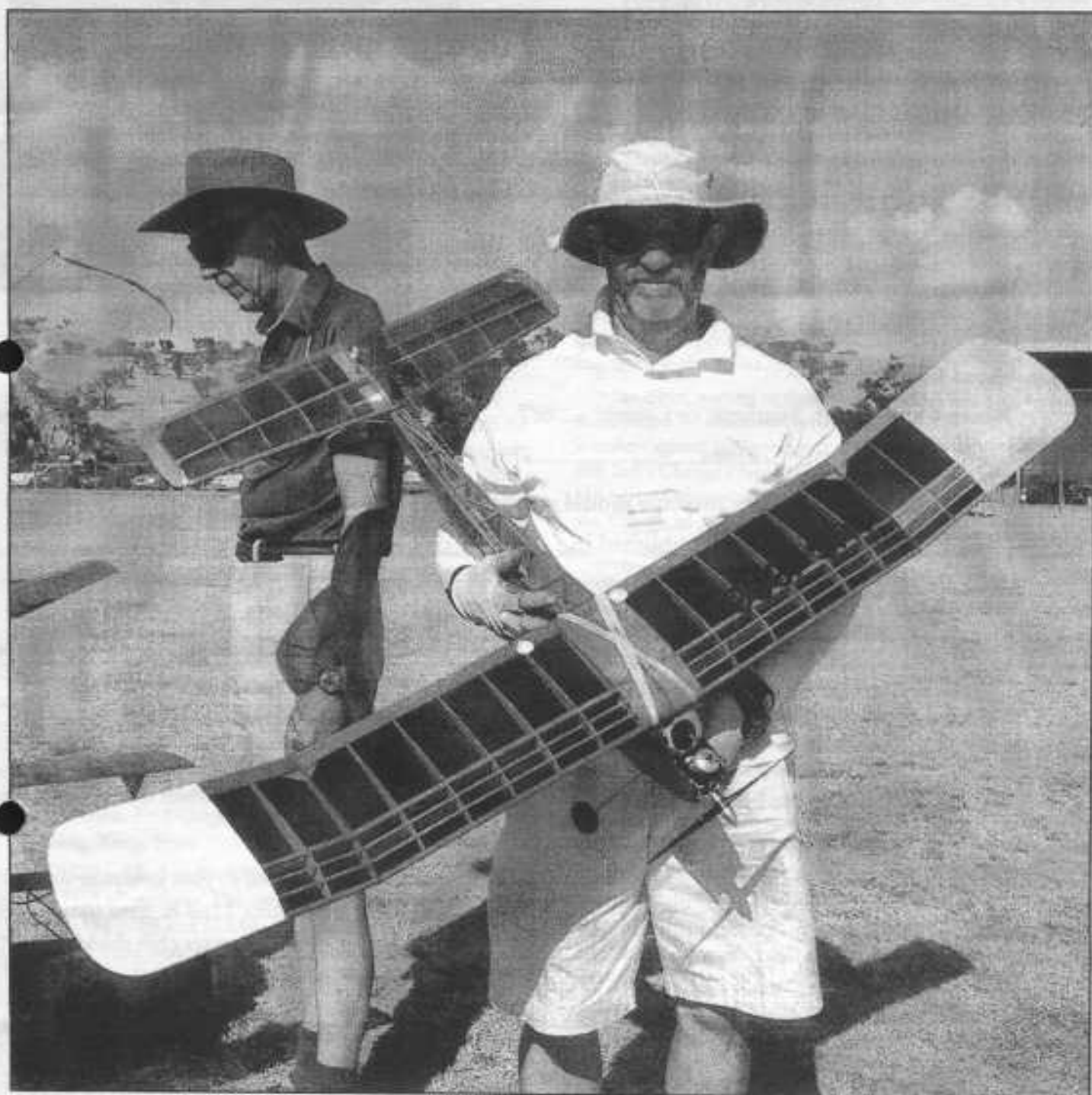


The Thermaleer



New Chairman of the MAAA Old Timer Rules sub-committee, Kevin Fryer and his "Atomizer" competing at the inaugural SAM Champs Downunder 2003 held at Cootamundra, NSW.

In the background is Basil Healy from SAM 1788.

President's Report	2
Editor's Report	
• Comments on Rules Change Procedure.....	3
SAM 600 Contest Rules Change Proposals	
• Proposals submitted for change of rules	3
• See page 5 for Peter Hosking proposal	5
• See page 3/4 for further proposals.....	3/4
• WebMaster's Report.....	4
Minutes of 83rd Ordinary General Meeting	
• Full report from John Whittaker.....	4
• Minutes of a Special General Meeting.....	5
• Results- Leopold Old-Timer Fly-In	5
Facts About Fuel: No. 2	
• Which Oil is Better, Synthetic or Castor?	6/7
Results- 2003 Vic State Champs.....	7
Plan: Long Cabin, a 38 Antique fuselage model	
• Designed by Robert Long and published in "Air Trails" August 1937 from a CAD drawing by our Argentine colleague Carlos Rojo.	8/9
SAM 600 Contest Calendar	
• Updated details for the 2003 year	10
Spitfire Modifications	
• Detailed article extracted from SAMTalk by SAM USA engine enthusiast Hank Baer.....	11
Weight Comparisons of Coverings	
• Analysis of lightweight coverings by Roy Bourke, MAAC 204L- From SAMTalk	12/13
11th Annual SAM 600 Swan Hill Easter Fly-In	
• Details of what, when, where and why.....	13
Valued Sponsors	
• Model Draughting Services.....	18
• Niddrie Model Aircraft Supplies	
• Saturn Hobbies	
• Rogers Radio	19



President's report:

Hi folks,

Extreme weather conditions (high wind and total fire ban) saw the cancellation of the 17th Roy Robertson Memorial Trophy and all but 1/2A at Leopold (Geelong). At our Victorian State Champs (1st and 2nd March) Saturday was abandoned due to wind and rain and on Sunday we managed to fly 1/2A Texaco and Duration. plus one round of Texaco before high wind forced us to cancel the following rounds and final event.

Congratulations to Kevin Fryer who has been elected MAAA Sub Rules Committee Chairman.

Looking forward to your company at our next Fly in at Cohuna 22nd & 23rd March. Cohuna has created an inter club shield to be flown in conjunction with Texaco.

Our Next SAM600 meeting is on Thursday 27th March. Your President, Chris Lawson

Meeting #84, Thursday 27th March, 2003, 7:30pm
Saturn Hobbies, 17 Ardena Ct, Bentleigh E (Melway 68 J-12) off E Boundary Road.
Meeting # 85, Thursday 26th June, 2003
Meeting # 86, Thursday 28th August, 2003
Meeting # 87, Thursday 24th October, 2003
Meeting # 88, Thursday 22nd January, 2004



Editor's Report.

These have been auspicious times for the Old Timer movement and SAM 600 in particular. As of the last meeting we have had the successful vote to decline to nominate a SAM 600 member to the MAAA Old Timer Rules Sub-committee overturned (see attached minutes).

Circumstances surrounding this led to the resignation, on a matter of principle, of our Secretary, Barry Barton, before the end of his term. Barry, in the opinion of your Editor, was correct in principle although resignation was his judgment alone. Barry did a great job and penned the defining letter to the VMAA which has led to actions which have unfolded in recent weeks, for this we thank him.

Following our decision reversal we now have a SAM 600 representative on the MAAA Old Timer Rules Sub-committee. Kevin Fryer has been appointed by the VMAA in this role. At the recent MAAA executive meeting Kevin was elected Chairman of the MAAA Old Timer Rules Sub-committee, after lobbying and phone calls from Kevin to most interested parties. We wish Kevin well in his role and I'm sure offer our mutual support.

Proposals in addition to those contained in "Stop Press" on page 5 are-

STANDARD DURATION applied to either the SAM 600 or the current MAAA rules.

Engine Eligibility change. Current: Engines used in this event may only be two stroke glow engines of 0.40 cub in capacity To be changed to: *"Engines used in this event may only be two stroke glow engines up to 0.40 cub in capacity"*
Proposed: Trevor Boundy, Peter Bennett, Graham McDonald, Barry Barton, Fred Chigwidden, Norm Campbell, Fred Stebbing, Kevin Fryer.

TEXACO applied to the SAM 600 rules.

Fuel allocations. The increase in the following as per SAM 1788 and MAAA: *Antique Engines 4cc/lb*
Proposed: Peter Bennett, Trevor Boundy, Graham McDonald, Barry Barton, Fred Chigwidden, Norm Campbell, Fred Stebbing, Kevin Fryer.

LANDING BONUS applied to either the SAM 600 or the current MAAA rules

"We should delete any reference to the landing circle and bonus which is not used now."

Proposed: Trevor Boundy, Peter Bennett, Graham McDonald, Barry Barton, Fred Chigwidden, Norm Campbell, Fred Stebbing, Kevin Fryer.

DURATION added to the MAAA rules as per the SAM 600 rules

Engine Runtime Allocations

"Any engine defined as an Antique spark engine (the

As per our Rules Change Procedure your Editor has only received one (1) duly authorised proposal which is detailed on page 5 as a "Stop Press" item. Your comments are required to be with me by April 30th (see below).

The scope of this proposal is such that significant questions arise as to the mechanics of its implementation. These will need to be addressed to enable the proposal to work. Put bluntly, there is a dichotomy between our current rules change procedure and that of the MAAA.

SAM 600 rules change procedure is democratic in that "one member one vote" prevails. The MAAA process means that one representative from each state Old Timer body forms the rules sub-committee and votes accordingly. No doubt Kevin will address this and work out some way to ensure that members are consulted and represented fairly.

Another anomaly is that SAM 600 has a period of 5 years between rules changes, as per our procedure. The MAAA currently has a period of three years, although I understand this may move to four years.

In effect, moving to embrace the MAAA Old Timer Rules means we render our procedure obsolete. I would caution members against taking any action to cancel or delete the SAM 600 Rules Change Procedure before we have seen proof that the MAAA procedure actually does work to our satisfaction. Modify, yes. Cancel, no. PCB

wing area rule shall not apply) 40 seconds".

Proposed: Peter Bennett, Graham McDonald, Trevor Boundy, Barry Barton, Fred Chigwidden, Norm Campbell, Fred Stebbing, Kevin Fryer.

DURATION applied to the SAM 600 rules

Engine Runtime Allocations

That another classification be added as per the MAAA and SAM 1788 current rules ie.

"Any four-stroke glow engine having a pressurized air/fuel system using other than muffler pressure or modified four-stroke glow engine 25 seconds"

Proposed: Trevor Boundy, Peter Bennett, Graham McDonald, Barry Barton, Fred Chigwidden, Norm Campbell, Fred Stebbing, Kevin Fryer.

NOSTALGIA applied to the SAM 600 rules

Engine Run times *"Engine run time should be increased from 20 seconds to 25 seconds"* to conform with SAM 1788 and the MAAA

Proposed: Trevor Boundy, Peter Bennett, Graham McDonald, Barry Barton, Fred Chigwidden, Norm Campbell, Fred Stebbing, Kevin Fryer

GORDON BURFORD EVENT applied to either the SAM 600 of Australia or the current MAAA rules

"That we adopt another event called the Gordon Burford Event using the same rules as SAM 1788 in the 2001 rule book but that the engine run time for Ball Bearing engines be increased from 35 to 40 seconds".

Proposed: Trevor Boundy, Peter Bennett, Graham McDonald, Barry Barton, Fred Chigwidden, Norm Campbell, Fred Stebbing, Kevin Fryer.

38 ANTIQUE applied to either the SAM 600 of Australia or the current MAAA rules

Engine Run Times "That we adopt the engine run times used in the current SAM 1788 2001 Rules Book".
Proposed-Trevor Boundy, Peter Bennett, Graham McDonald, Barry Barton, Fred Chigwidden, Norm Campbell, Fred Stebbing, Kevin Fryer.

WebMaster's Report. As a result of requests for a printable copy of our SAM 600, SAM 1788 and MAAA 2002 rules, documents have been up-loaded to our web site which contains a full set of rules, and can be accessed from the SAM 600 of Australia web page. The SAM 600 and Model Recognition web pages can be seen from www.boundy39.com

The WebMaster can be contacted by email at trevor@boundy39.com.

We had 123 and 187 visitors to the SAM 600 and Model Recognition sites respectively over the last 2 months.

Congratulations must be given to Kevin Fryer, firstly for taking on the task of representing SAM 600 on the rules sub-committee and also standing for, and winning the position of "Chairman of the MAAA Old Timer Rules sub-Committee". I believe this a job will have many challenges. With the knowledge and experience gained by Peter Bennett as our recent local representative, together with his influence as Chairman this time, I wish you every success in your endeavors to proceed towards common and democratic set of rules.

Thank you to Barry Barton for almost 3 terms as Treasurer, a difficult and well done job.

TrevB <www.boundy39.com>

MINUTES OF 83rd SAM 600 ORDINARY GENERAL MEETING 23rd JAN 2003

Meeting Opened: 7:40pm by Chris Lawson

Apologies: Don Cameron, Greg Jenkinson, Barry Barton, Norm Campbell. (Norm Campbell was wished a speedy recovery by all)

Visitors: Chris Caulcutt (VMAA Secretary), Ivan Chislett (MAAA Secretary)

New Members: Graham Scott (VMAA Contest Director)

Attendance: 14 members present.

Visitors & new members were welcomed by those in attendance at the meeting

Minutes of Previous Meeting:

Read: John Whittaker. Moved: Bob Harmon: Seconded: Peter Bennett

Treasurers Report: No treasurers report was submitted due to Norm Campbell's illness.

Correspondence In: Nil

Correspondence Out:

- Letter to MAAA from Barry Barton re Old Timer Rules Sub Committee Delegate.

General Business:

- John Whittaker was asked to stand in as Secretary at the Meeting following Barry Barton's sudden resignation.

- Chris Lawson contacted P&DARCS re Roy Robertson Trophy & club rules on total fire ban days. P&DARCS advised that even though they did not ban power flying on total fire ban days, they would prefer that we did not run the '38 Antique event as most models were powered by spark ignition engines.

- Chris Caulcutt advised that the VMAA recommendation is that no power models at all should be flown on total fire ban days.

- Because of forecast temperature in the low 40's & high 30's together with associated strong northerly winds, a vote was taken to postpone the Roy Robertson Memorial Trophy to another weekend. (11 for, none against). Chris Lawson, Peter Bennett & Trevor Boundy to notify members. Chris Lawson to contact P&DARCS to arrange a new date.

- As advised by the VMAA, the State Championships are to be run to the Current National Rules & not our own, (with the exception of Texaco fuel allotments which are to be as per the 2001 rules as flown at this years Nat's.) unless conditions or valid reasons of safety etc prevent us from doing so.

- John Whittaker moved a motion that the 2004 Old Timer State Championships be held at the new VMAA State Field. The motion was seconded by Peter Bennett. Discussion followed in reference to our continuing support of Haddon by scheduling other events there to compensate. The motion was carried. (11 for, none against). The Secretary is to write to the VMAA regarding suitable dates.

- Ivan Chislett advised that Hamilton has a fantastic field & would be well worth investigating for State Champ's & other events. It is also nearly exactly half way between Melbourne & Adelaide & would encourage South Australian competitors.

- Ivan Chislett then addressed the meeting at length regarding the ins & outs of the Rule making process & the roles that the MAAA & individual State bodies play in the procedures, in particular, how the Rules Sub Committee Chairman is appointed. He suggested that we look at the way the Australian Pattern Association is organized & the

process by which they formulate & submit their rules to their Sub Committee, as they do not have the problems we are currently having.

- Ivan read Barry Barton's letter informing the MAAA of our decision not to have a delegate on the Old Timer Rules Sub Committee, to the meeting. He expressed his disappointment in our decision, & of the wording in the letter.

- John Whittaker addressed the meeting saying that it is time all the bickering & dissention over rules should stop & that he believes that the time has now come to draw a line in the sand & decide whether we:

- a) Want to remain part of the VMAA/MAAA system as the official SIG for Old Timer in Victoria & enjoy all of the benefits associated with being part of this system, or ,

- b) Want to disassociate ourselves from this system & do our own thing, thereby rescinding the right to have any official input into the State & National system on behalf of all Old Timer Flyers in Victoria.

- Kevin Fryer moved a motion that we rescind the decision made at the meeting of 28th Nov 2002, not to have a Delegate on the Old Timer Rules Sub Committee. Seconded by Fred Roberts. The motion was carried. (11 for, none against). The Secretary is to write a letter to the VMAA advising them of our decision. Members are to think about volunteering for this role. The issue is to be discussed at the next meeting.

- Fred Roberts has obtained a camera from Camera House in Geelong as a prize for Champ of Champs at the Leopold weekend contest. Many thanks to Camera House for their support.

- John Whittaker will take on the position of Acting secretary until the 2003 A.G.M., unless there are any other volunteers for the job!

Meeting Closed: 9:45pm

STOP PRESS!

A Special General Meeting was convened at the Leopold Old Timer Fly In on Saturday 8th Feb 2003, to discuss the issues of MAAA Rules Sub-Committee Delegate, the SAM 600 Club Rules & methods by which we can make the rules change process a democratic one.

Twelve financial contest flying members were present at this meeting & the following motions were moved & voted on.

1. Moved - Chris Lawson:

That Kevin Fryer be elected as our official MAAA Old Timer Rules Sub-Committee Delegate, & also that the VMAA nominate him as the next MAAA Old Timer Rules Sub-Committee Chairman.

Seconded - Mark Collins.

No discussion was required & the motion was carried. (12 for. None against.)

2. Moved - Peter Hosking:

That we the members of SAM 600, adopt the 2002 MAAA Old Timer Rules (With the exception of the fuel allotments for Texaco, which are to be as per the previous MAAA rules. i.e.: 3cc/lb for 4 stroke glow engines & 2cc/lb for diesels), as the official rules to be flown by SAM 600.

Seconded - Fred Roberts.

The basis for this motion was, that except for the fuel allotments in Texaco, the current SAM 600 (MAAA 1995) Rules were so close to the current MAAA that it wasn't worth messing around having our own special set of rules & that it would also bring us more into line with South Australia, Western Australia & Queensland by having a common set of rules to fly to.

The motion was carried. (10 for. None against. 2 abstentions) The following 10 members voted in favor of this motion:-

Fred Roberts, Mark Collins, Steve Gullock, Fred Stebbings, Don Cameron, Peter Hosking, Kevin Fryer, Peter Bennett, Chris Lawson & John Whittaker.

A suggestion by Mark Collins to introduce supplementary rules to encourage the use of antique spark ignition engines in Duration by allowing longer engine run times etc. & to cover other special requirements, received a positive response. This subject is to be discussed further at a future General meeting.

Westcoast Soarers Leopold Old-timer fly In Results Saturday/Sunday, February 8-9th 2003.

1/2 A Texaco

Name	Model	Score	Place	Freq
Peter Bennett	Red Ripper	939	1st	643
Don Cameron	Lanzo Bomber	798	2nd	34
Barry Barton	Stardust Special	792	3rd	16
Mark Collins	Lanzo Bomber	746	4th	620
Steve Gullock	Lanzo Bomber	721	5th	20
Kevin Fryer	Atomiser	720	6th	631
Chris Lawson	RC1	586	7th	28
Fred Stebbing	Stardust Special	323	8th	36
Trevor Boundy	Stardust Special		DNF	
Fred Roberts	RC1		DNF	

Leopold Report, Saturday:- South East winds gusting over 7 metres per second prevented any flying.—

Sunday:- Southeast winds gusting up to 6.8 metres per second allowed us to fly two rounds of 1/2A and a fly off between 6 competitors. Peter Bennett's Red Ripper handled the conditions best and won the day. The other events were abandoned due to low clouds and stronger wind.

POWERMMASTER

POWRMASTER Hobby Products, Inc.

FACTS ABOUT FUEL No. 2 -

Which Oil is Better - Synthetic or Castor?

(The following is the second in a series of articles exploring all facets of model engine fuel. The writer is Don Nix, Past owner of Powermaster, Inc.)

Before we get started on the subject heading, I'd like to offer a couple more thoughts on last month's subject, "What's the Oil Content?" - thoughts that have been remembered since writing the original column:

Many modelers who have been involved in the hobby for a long time, including those who've been away for years and recently returned, are very stubbornly remembering when model fuel just about had to contain something in the order of 25% oil - usually all-castor - and have a hard time dealing with the idea that virtually no one runs that much any more in modern engines.

The operative word here, of course, is "modern." The metallurgy in today's engines barely resembles that of a generation ago. The end result, as far as model engines are concerned, is that the engines today simply don't require as much lubricant - not nearly as much. I will be quick to add that those running antique engines in Old Timer events should certainly continue to use the old-time formulas - no doubt about it.

In addition to vastly improved metallurgy, we must remember that manufacturing techniques barely resemble those from years ago, in many ways. Modern CNC machinery has made it possible to routinely and cheaply make 1 or 1 million parts all exactly alike.

Those of you who have come along in later years may be shocked to know that up until the advent of this new technology, every piston was hand fitted to every liner. There was no such thing as simply machining 1,000 pistons and 1,000 sleeves, picking one from each batch and having them fit.

The belief in those days that some engines of the same size and make were markedly hotter than others was no doubt true. We've read that in those days, a .29 for example, might vary from as low as an actual .26 to a .32 - some 23% more displacement! More closely controlled tolerances have resulted in the ability to use much different fuels than a generation ago.

The second thought on the subject of total oil content came from reading the operating instructions included with a new imported 4-stroke engine - the DAMO FS 218 twin. It recommends a fuel containing

94% methanol, 5% nitro and 1% Castor Oil! Clearly, this reinforces my point that "there ain't no such thing as a fixed percentage of oil content." Now...on to this month's subject:

Before we depart the subject of oil in model fuel, let's talk about a point that's argued vehemently all over the land - Which kind of oil is better - synthetic or castor?

Each side has its very strong proponents, and each side is right...to a point. "Old-timers" tend to still favor an all-castor fuel, or at least one containing a liberal amount of castor oil. Modelers who have come to the hobby in the last 15 or 20 years have a strong affection to synthetic oils, or at least want their fuel to have mostly synthetics. Let's take a look at both types statistically:

SYNTHETIC OILS

Strong Points

- Good Lubricity (It's "slick")
- Little to no carbon or varnish buildup inside
- Leave less oily mess on models
- Available in a variety of viscosities
- Totally soluble in nitromethane

Weak Points

- Most tend to cause corrosion if adequate inhibitors aren't added
- Burns off surfaces at about 100 degrees lower temperatures than castor oil
- Many types and qualities, making it hard to choose the best one
- Expensive - good ones cost almost twice as much as castor oil, increasing the cost of the fuel.
- When used as the sole lubricant, a greater quantity is required, which increases the cost of the fuel.

CASTOR OIL

Strong Points

- Great Lubricity
- Reduces the amount required, resulting in more power and better idle.
- Will tolerate internal temperatures about 100 degrees higher than any synthetic
- Almost 50% cheaper than good synthetics - reduces cost of fuel.
- Great natural rust and corrosion inhibitor

Weak Points

- Tends to cause carbon and varnish buildup in engine if cheap grade and/or too much is used.
- Messier on model than synthetics
- Somewhat sensitive to extremely cold temperatures - mild separation in solution, residue on model becomes almost "buttery" in

consistency.

Insoluble in nitromethane. In solutions above 40% - 50% nitro, will separate unless some sort of co-solvent is used.

Generally available in only one viscosity

I'd like to insert here that there is a "Chicken Little....The Sky Is Falling" rumor making the rounds on the Internet these days that the manufacturers of castor oil have recently changed their methods of making the product, and the castor oil we are getting now is either wholly or partially incompatible with methanol.

I have talked at some length with the "Head Techie" of one of the largest castor oil importers in the U.S., and I want to go on record as saying that, according to the best information I can find, This is total B.S. The Head Techie actually laughed out loud when I told him what was going around.

He said, "You know, there isn't much we do to the stuff. We press the oil out, filter it, grade it and package it. As far as I know, nothing has changed." It apparently started with one of the fuel manufacturers. For what reason, I have no idea, unless it's to help them promote their proprietary synthetics. (Incidentally, I have read a response on the 'net from SIG, agreeing with the fact that it's nonsense.)

So.....there you have it. "You pays your money and takes your choice." Actually, it's a little better than that, and the obvious answer is - use a combination of the two, in proportions that will come nearest to enjoying the benefits of each, while minimizing the adverse characteristics.

A few years back, the modeling community was in "synthetic oil frenzy," and the swing was toward all-synthetic fuels. Happily - at least in this writer's opinion, we've seen a very noticeable swing back toward the center, with the majority seeming to prefer a synthetic/castor blend. We think this makes sense, and many years experience proves it.

The most frequent comment I hear from lovers of all-synthetic fuels is, "Brand XX leaves a lot less oil on my model." My response to that is, "Doesn't that bother you? If you don't see much oil on your model after flying, that tells you one of two things - or both: Either there wasn't enough oil in there in the first place, or the oil is burning off with the methanol. Neither is good.

There's no way oil can burn off and properly lubricate at the same time." This is usually met with a puzzled look, then one of the light dawning, having just realized something they never thought of before.

Oil residue in model engines is a natural as barking is

to a dog. We have to learn to live with it.

As an aside, not long back a friend sent me a copy of an article published in a European model magazine. In one part, the writer stated, "The Americans are the only ones rich enough and dumb enough to use synthetic oils." Perhaps overstated just a bit, but it has some validity.

There a couple of types of engines that do require an all-castor fuel, or at least one with a considerably higher castor content than most others. One would be the Fox ringed iron piston type, and the other would be the small Cox engines, because of their rather unique ball-and-socket connecting rod-to-piston design.

Pattern flyers traditionally prefer an all-synthetic fuel, for a couple of reasons, I think. One is the fact that pattern flyers practice a lot - hour after hour after hour. That much use, plus the tuned pipe setup that is almost universal with them probably, tends to cause a greater problem with varnish and carbon buildup than in sport types.

(At the risk of bombarded, I also think it's largely a state of mind. "Joe Champion uses all-synthetic, so that's what I'm going to use.")

The other area where we have seen all-synthetic fuels gain in popularity in recent years has been with model helicopters, probably for the same reasons. Also, the trend toward 30% nitro fuel for serious competition has led to using a lower viscosity lubricant, and, as shown in the comparison charts above, this necessarily dictates using synthetics.

Results:

Victorian State Champs

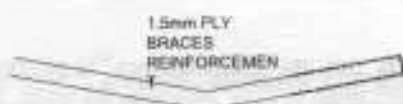
Haddon, 1st & 2nd March 2003

1/2A TEXACO

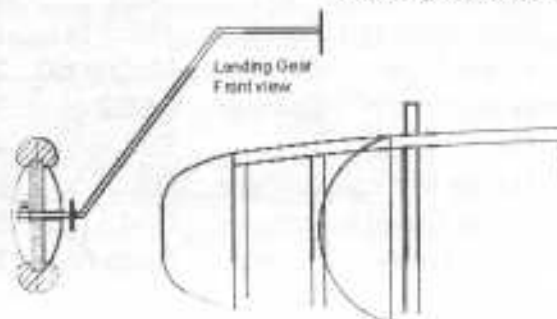
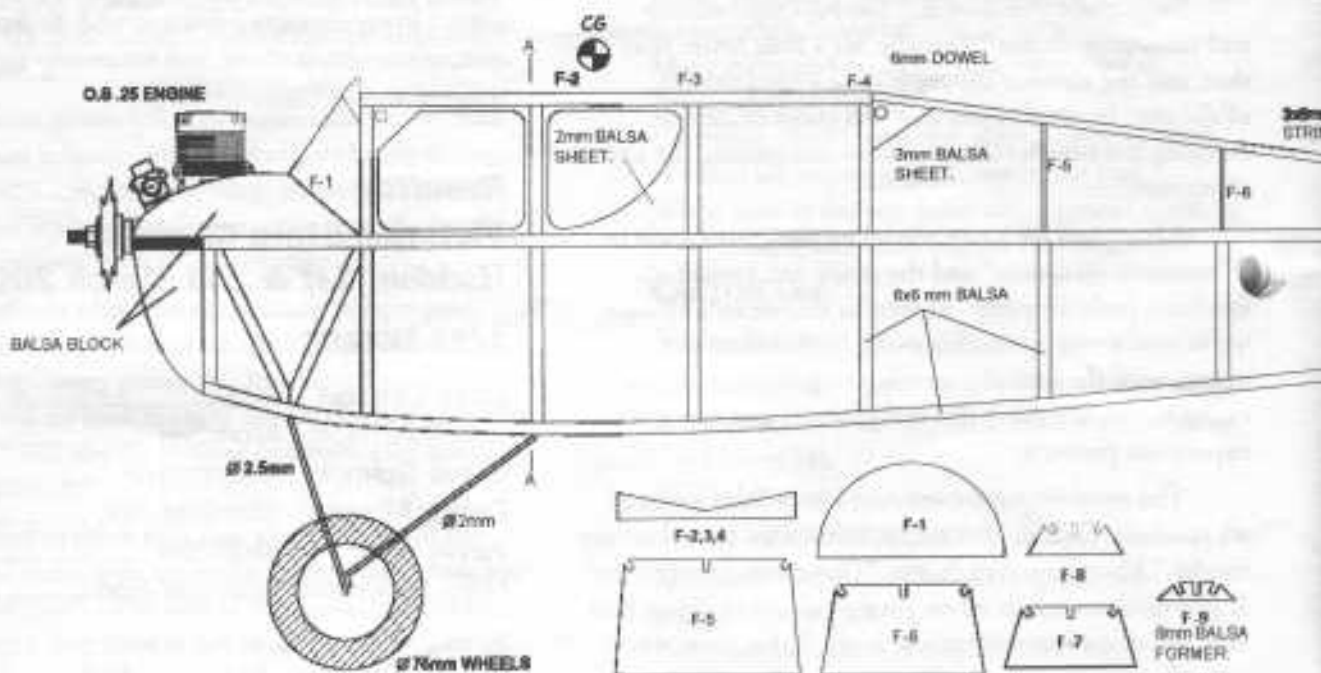
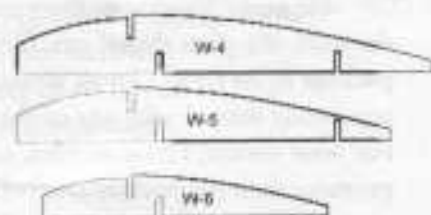
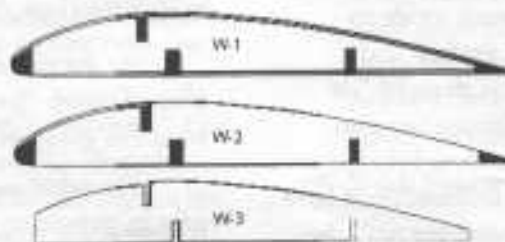
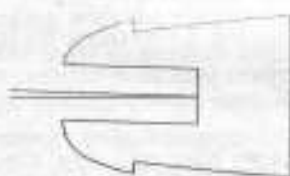
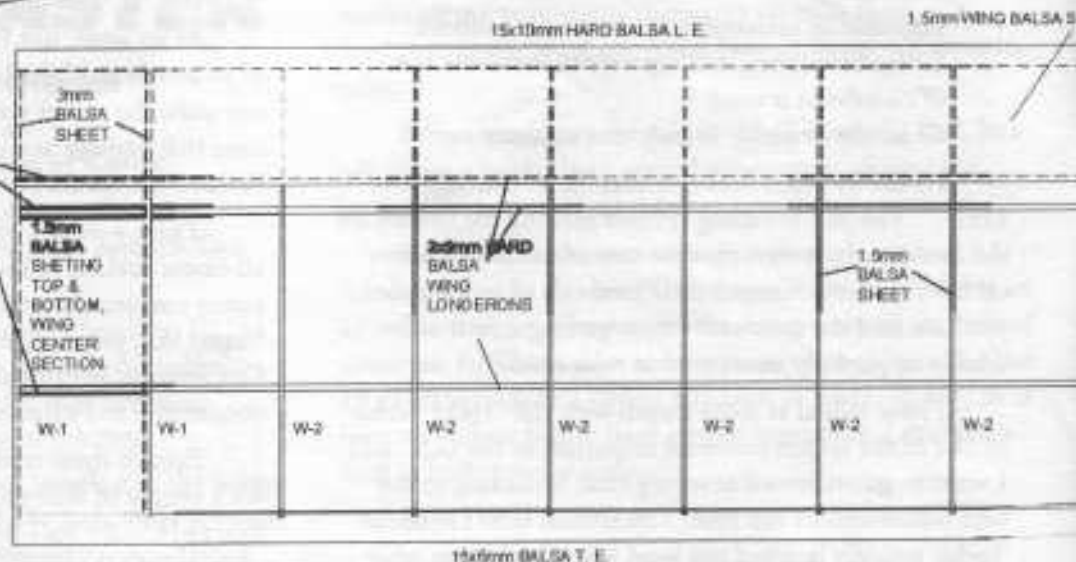
Chris Lawson	RC1	.....1st.....	28
Ron Adamson	Atomiser	.....2nd.....	16
Steve Gullock	Anderson P	.....3rd	641
Danny Missen	Stardust Spc	.....4th	633
Kevin Fryer	Atomiser	.....5th	631
Greg Jenkinson	Stardust Spc	.....6th.....	20

DURATION

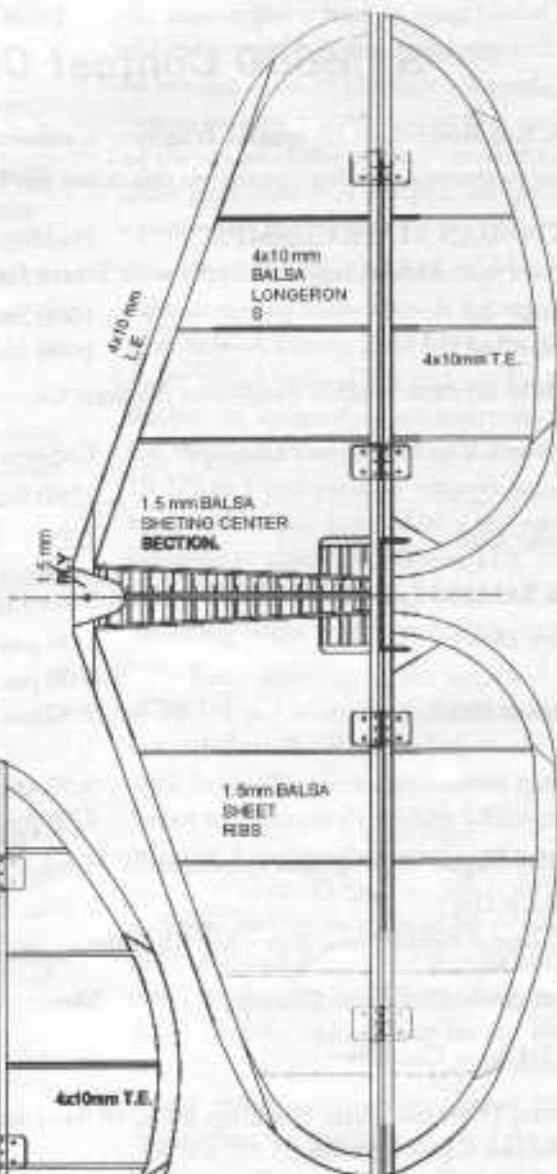
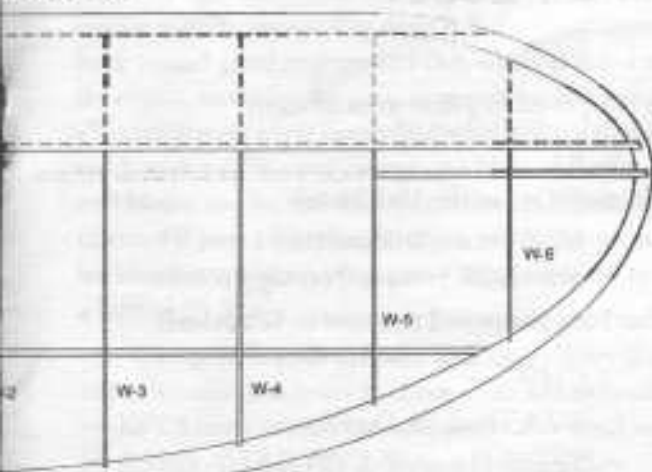
Ron Adamson	Bomber ..	YS52 fs	.....1st....	615
Kevin Fryer	Cumulus .	McCoy 60	..2nd...	631
G Jenkinson	Bomber...	OS52 fs	.....3rd ...	639
Chris Lawson	Vespa	..... Saito65fs	..4th	28
Danny Missen	Dallaire...	OS.25fx	....5th ...	633
Steve Gullock	Dallaire...	OS45	.....6th	14
Chris Folley	Hornet....	Saito 65fs	.7th ...	623



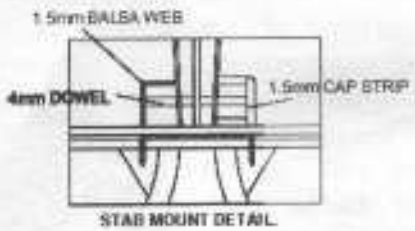
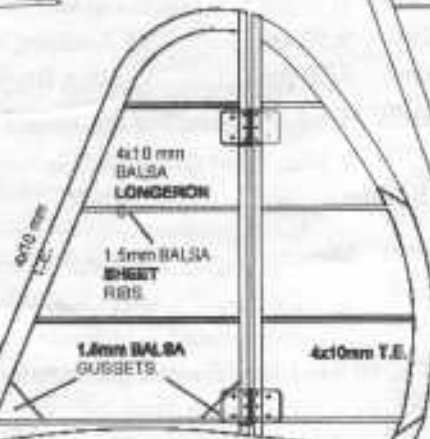
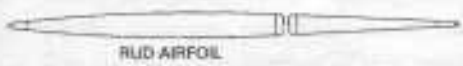
1.5mm PLY BRACES REINFORCEMENT



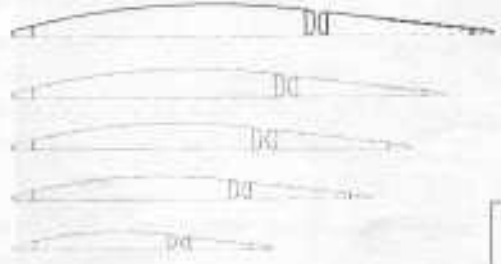
WING, ONLY TOP



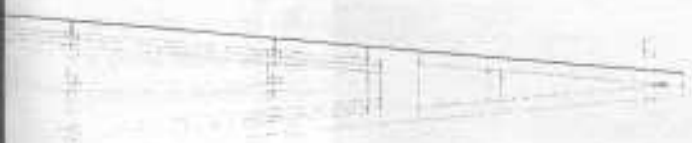
Dowel: 100mm on each sp.



STAB SECTIONS



FUSELAGE CROSS SECTION A-A



Long Cabin

Designed by Robert Long.
 Published in Air Trails-August 1937.
 CAD drawing: Carlos Rojo, October 02.

SAM600 Contest Calendar 2003.

- Jan 25-26** **17th Roy Robertson Memorial Trophy** Cardinia P&DARCS
 (Due to extreme weather conditions this comp has been postponed to a date to be advised)
- Mar 1-2** **VICTORIAN STATE CHAMPS** Haddon BA
 (Please Note: MAAA rules will apply with Texaco fuel allotments as per the 56th Nats.)
 Saturday 1st 1000 Start 1/2 A Texaco & Duration
 Sunday 2nd 1000 Texaco, 38 Antique /Nostalgia combo
 (Due to extreme weather conditions the State Champs has been postponed to a date to be advised)
- Mar 22-23** **1st North Vic. Old Timer Champs** Cohuna CMFC
 Saturday 22nd 1000 Start 1/2 A Texaco & Duration
 Sunday 23rd 1000 Texaco, Nostalgia & GB combo
- Apl 18-21** **11th SAM600 EASTER FLY-IN** Swan Hill SHMAC
 Friday 18th 1:00 pm 1/2 A Texaco
 4:00 pm 2cc
 Saturday 19th 9:30 am Texaco
 1:30 pm Duration
 Sunday 20th 9:30 am 38 Antique
 1:30 pm Gordon Burford
Sunday Night Get-together (Commercial Hotel, 91 Campbell St., Swan Hill. Phone (03) 5032 1214)
 Monday 21st 9:30 am Nostalgia
 (Catering at field all four days - MAAA Rules as used at the 56th Nats)
- May 3-4** **South Australian State Champs** Monarto South Australia
- May 24-25** **3rd Tri State Gas Champs** Jerilderie SAM600
- Contest Director: Peter Hosking**, 03 5248 5461, email: <peterh@webaxs.net>
President: Chris Lawson 03 5275 8482



WebMaster Trevor Boundy and his immaculate "Eliminator" built for the Gorgan Burford event.

Spitfire Mods (Extracted from SAMTalk)

I'm very hesitant to tell people about the way I do engine modifications--I've done it before and some guys have ruined good engines and they blamed me--I also don't do engine mods for the guys anymore for the same reason--There's always some damn fool who will try to run your work with a 65% nitro charge and blow the cylinder off and blame me for that too--I've become disgusted with idiots--I'll pass a few things to you as you are an engine builder but you're on your own--What we want to build is a lapped 65 Spit--

I start with a .60 cylinder and liner--They didn't have any sub-induction holes in them--The sub-induction holes in the .65 cases are too low and don't close until near 60 degrees ATDC--I drill the new holes to close at 40 degrees ATDC--For the RPMs we're working with, it's more appropriate for cylinder packing--Use your dial indicator and a good degree wheel to locate the holes--I make up a heavy bronze piston lapping block with a slot and hose clamp to tighten--With lapping compound and a T handle on the wrist-pin, rotate the piston and get it round--Damn few are round in engines of this period--

Don't go nuts here but be sure that you are getting high spots showing most of the way around--The top edge at the crown is the most important--That's going to be the seal--To check the roundness of the cylinder/sleeve, I cast a sulphur plug in it the whole length--After pushing it out the bottom, you can now mike it for its entire length to check for straightness and roundness--I make a "lapping piston" out of bronze and with an attached T handle. Being sure to rotate it 360 degrees while pushing it in and out--Here's where "feel" comes into play--We don't want to remove much if any at all from the top 3/8 inch of the bore and yet we want to give relief below that point--.0003 is a good starting point--

Recast a sulphur plug and again push it out the bottom and very carefully mike its entire length for straightness and roundness--The fit of the piston to the cylinder is hyper critical--In the end, we're looking for a piston seal at the top 3/8 inch of the stroke and a free running piston in the rest of the stroke--The final lapping operation is charging the piston itself with ferric oxide (red rouge) and "feeling" the fit through the stroke--We want a good seal at the top of the stroke for the last 3/8 inch of the stroke and a free running piston for the rest of the stroke--

Don't go too far with the "freeing up" or you're going to lose too much crankcase pressure--Look at the piston as you use it to lap with rouge--We only want the top 1/32 or so of the piston making the seal--You should be developing a good shine all around the top edge of the piston--If the piston is making contact with the liner all the way down

the piston, put it back in your piston lapping block with the crown sticking out of the top and give it a few rotations to remove some of the skirt--We only want the top of the piston making a compression seal and only at the top end of the stroke--Lot's of "feel" needed here and here's where most guys blow it--I sharpen the closing side of the venturi opening on the crank--

Don't enlarge it and change the timing--Leave the exhaust timing alone also--It has more timing than a McCoy does as is--A button head has to be made to increase compression ratio--Drill and tap for a 1/4 inch plug--I cut the button longer than necessary in order to adjust it for the CR that I want by trimming as I go--We want an exact 10 1/4 to 1 compression ratio--That's critical--Install the head and torque down--Use a laboratory grade buret and kerosene to check chamber at TDC (use a dial indicator)--My buret has a 1/16 inch bore and is very accurate--Anything larger will cause errors--

Keep returning to the lathe and trimming until a CR of 10 1/4 to 1 is attained--Remove the restrictor in the venturi--Install a K&B racing needle valve--Re-drill orifice .002 larger--Runs on suction just fine with this setup--I forgot to mention that when I have the sleeve out of the cylinder, I enlarge the top of the bypass over the port--Go easy here as there's not too much meat here--Don't polish it--Leave it satin finish in order to hold a "wet" charge--High polished ports don't flow as well as a satin finish--The crank we're using is a .65 crank of course (11/16 stroke)--Look over the cam--Many are too abrupt on the lifting side--Rounding it slightly greatly reduces point drag--Set points with an ohm-meter, plug at .015--You might consider chamfering the inside bottom of the piston but I've never seen any great gains--That does wonders for an O&R SP though--

That's roughly it --The feel of the fits is key to the operation of any engine--I've put engines together, that after running for a few minutes, felt that they were a little too tight--I've taken a pinch of rouge and mixed it well in the fuel tank and run it that way--Keep one hand on the kill switch and the other holds the tach--You can watch the RPMs go up as the rouge laps--It's a quick break in but you must know when it's time to shut it off--A few seconds too long and it's junk--Be sure to disassemble and wash thoroughly with thinner and soap and water--I hope some of this helps--

A large book could be written in detail about the subject--I've only tried to touch some of the issues here--One more point, push a piece of neoprene fuel tubing down over your spark-plug-- At this compression ratio, the spark wants to jump from the high tension lead to the head--I discovered this after dark on night--The neoprene fuel tubing acts as an insulator.

Hank Baer

A WEIGHT COMPARISON OF SOME LIGHTWEIGHT COVERINGS

by Roy Bourke, MAAC 2041, (from SAMTalk).

Building a light airframe is as much a concern to the SAM (Society of Antique Modelers) flyer as it is to the electric flyer. SAM competition rules stipulate a minimum wing loading of 10 oz/sq.ft. for most classes (8 oz/sq.ft. for 1/2A Texaco) and many competition flyers, myself included, try to build to minimum weights. Among other strategies, this means using light covering materials.

The "ideal" covering for SAM power models would be a light material, smooth for easy cleaning (power models are messy!), resistant to puncturing and tearing (models often land in stubble), with enough stiffness and skin strength to withstand the stresses imposed by a big overpowered Class C ship screaming skyward, offered in colours that are visible at great heights, and easy to repair.

In the distant past I have covered models with silkspan, silk, jap tissue, nylon, and some of these coverings do exhibit the desired characteristics. More recently I have succumbed to the convenience of the modern heat-shrinkable coverings in the form of Micafilm, Litespan, Polyspan, Airspan, and most recently, Ultracote Lite.

For my last sixteen airplanes, I have developed a habit of keeping copious notes during construction, with detailed records of weights of materials used. These include weights of my wing and other frameworks prior to and after covering. Several of my colleagues have asked me which covering I found the lightest, so I decided to do a quick analysis of the weights of the coverings for which I have some recorded data. But first, my comments on the four coverings that I compared.

Micafilm (by Coverite): A very strong covering, impregnated with omnidirectional mica fibers, smooth on one side and fibrous on the other, applied with Balsarite adhesive. I used only clear Micafilm (hard to find in stores): the transparent colours are heavier, and solid colours heavier again, and the addition of the colour layer kills the shrinkability of the film. This leaves the problem of how to colour the clear film. Dope will stick only to the fibrous side, leaving an outside surface that is impossible to clean. (A colleague of mine colours and trims the covering backwards

before applying it to the aircraft. Then he applies the covering coloured side in, smooth side out!) Micafilm also has a nasty habit of wrinkling in strong sunlight. Sometimes it de-laminates under stress.

Litespan (by Solarfilm): A good-looking covering (looks like silk), good choice of colours, easy to trim by covering dark colours over light. It has a definite grain, and is applied with Balsaloc or Balsarite cement (I have also used Weldbond, and Uhu glue stick).

Light colours have good shrinkability, darker colours lousy! Not a very stiff covering, so doesn't contribute much to torsional stiffness of the structure. Also tends to wrinkle in strong sunlight, but this can be reduced somewhat by adding a couple of coats of butyrate dope to the final covering. Puncture resistance is poor, but it is easy to make near-invisible repairs.

Polyspan (Starline International): Looks and feels very much like silkspan, except it is a heat-shrinkable, waterproof polyester fiber. Very strong along the grain, weak across the grain until you get the dope on. Applied with Balsarite, Balsaloc, or conventional clear dope. Comes in white only so you have to dope it, and I find it needs at least 8 thin coats to fill the grain, but it is tight and really strong after doping, adding a lot of torsional rigidity to the structure. I use about 5 coats of clear nitrate, 1 coat of colour, and 2 coats of clear butyrate, but you can also add colour with aniline dye in the dope. I use dark Litespan for trim over the Polyspan.

Ultracote Lite (Goldberg): Thermal shrink film, complete with adhesive, approx. 60% of the weight of Ultracote. Comes in transparent colours only (I use only transparent white and violet). Applied in the same way as Ultracote. Covering is tight and stiff, adding considerable torsional strength to the structure. Smooth, easy to clean, relatively puncture resistant, but once a tear starts it keeps going. Does not wrinkle in the sun.

For weight comparisons, since three of the coverings involve adding adhesive and dope, I decided to look only at the weight of the total covering job after all trimming and finishing, on 16 wings in my records. I subtracted the ready-to-cover framework weight from the final wing weight in each case (in grams), doubled the wing area (wings are covered top and bottom) and calculated the final covering weight in grams/100 sq.in. for each wing. The results are as follows:

Aircraft	Covering	Total Wing Area (sq.in.)	Covering Weight (gm)	Covering (gm/100sq.in)
Baby Playboy	Ultracote	288	14.1	2.45
Thermal Magnet	Ultracote	636	33.1	2.60
Spirit	Polyspan	677	37.9*	2.80
Lanzo Bomber	Polyspan	260	114.2	4.53
Kerswap	Litespan	288	19.1	3.32
Puddle Master	Litespan	396	33.6	4.24
Hornet	Litespan	564	47.4	4.20
Buccaneer Std.	Litespan	635	42.8	3.37
Brooklyn Dodger	Litespan	375	24.6	3.28
Westerner	Litespan	245	22.3	4.55
Jr. Playboy	Litespan	430	34.9	4.06
Cabin Playboy	Litespan	475	33.6	3.54
Miss Canada	Litespan	329	26.8	4.07
Speedy Bee	Litespan	475	37.4	3.94
Jr. Playboy	Micafilm	430	27.4	3.19
Flyabout	Micafilm	310	17.1	2.76

(*note: this weight includes only the first 4 coats of dope, no trim.)

Average weights from the data above are:

Ultracote Lite	2.53 gm/100sq.in.
Polyspan	3.67 gm/100sq.in.
Litespan	3.86 gm/100sq.in.
Micafilm	2.98 gm/100sq.in.

The variability in the data comes largely from the differing amounts of material other than covering. A heavily planked structure, for example, requires more covering adhesive. Some of the wings are covered on the bottom with black Litespan (heavier). The wings covered in Litespan or Polyspan may have as much as 20% of the area double-covered with a dark trim colour.

However the data seem to show that the Ultracote Lite comes out as the lightest of these covering jobs, so that is what I am continuing to use for my competitive endurance ships. It has the added advantage of a smooth surface for clean up, the transparent white colour aids visibility against a blue sky (it glows as the sun penetrates it), and the covering stays quite taught in the sun.

R.Bourke



SAM 600 of Australia

Victorian R/C Old Timers Association
(SAM 600) Inc. (Special Interest Group)

Cordially invite you to attend and participate in our

Eleventh Annual Swan Hill Easter Fly In

Program Of Events

GOOD FRIDAY 18th APRIL 2003

(Registrations from 10:00 am)

1/2 A Texaco	1:00 pm
2 cc	4:00 pm

EASTER SATURDAY 19th APRIL 2003

Texaco	9:30 am
Duration	1:30 pm

EASTER SUNDAY 20th APRIL 2003

38 Antique	9:30 am
Gordon Burford	1:30 pm

SUNDAY NIGHT GET-TO-GETHER 6.30 pm

Commercial Hotel 91 Campbell Street Swan Hill
Ph (03) 50321214 (All welcome to attend)

EASTER MONDAY 21st APRIL 2003

Nostalgia	9:30 am
-----------	---------

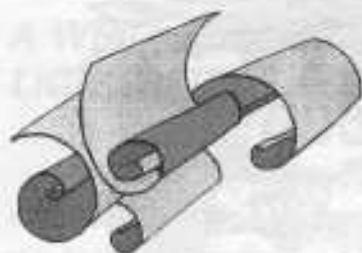
Presentation - at the field following last event

Catering at field all four days

MAAA RULES as per the 56th Nationals

SPONSORS DETAILS:-

MODEL ENGINES AUST.	(03) 9569 4440
SATURN HOBBIES	(03) 9759 7666
BALSA WORKS AUSTRALIA	(03) 59873566
TATES PERFORMANCE HOBBIES	(03) 5222 4201
NIDDRIE MODEL SUPPLIES	(03) 9331 0656
ROGERS RADIO CONTROL REPAIRS	(03) 5222 5085
MODEL DRAUGHTING SERVICES	(02) 63512513
MODEL FLIGHT SOUTH AUSTRALIA	(08) 8293 3674



Model Draughting Services

02 6351 2513

Laser Cutting

Parts for your Plans



Laser Cutting

We offer a complete **CNC Laser Cutting Service**. We prepare and cut your parts with a CNC Laser Machine. We can cut balsa wood, plywood, acrylics, cardboard etc

We specialise in providing partial kits of ribs, formers and ply doublers for fuselages and/or nacelles, for radio controlled aircraft, the parts being cut need to be in an electronic format. Complete parts kits from your plan are an option. **What do we need ?**

1) Your Plan.

(We do not supply plans for your project)
(If you have access to scan the plans full size at the local copy shop, send both the plan and the scans for correct sizing).

If you send an accurate plan there is some processing of it to computer files for the Laser Machine to process, your plan is returned to you with the parts you have ordered.

We, like most builders, can modify and/or scale (up or down), the plans to accommodate your own building preferences, just let me know what you need. We can include features of lightening holes, dihedral angles, washout, jiggling tabs, interlocking formers and doublers.

2) Computer Drawings.

Simply send your computer drawing file in DXF, or DWG, or DGN format by email, floppy disk or CDROM with the part/s list you need.

If you supply computer files the parts need to be drawn in millimetres and full size, so if the rib is 200 mm long it needs to be drawn 200 mm long. No text or labeling is required.

Separate your parts onto balsa boards 915 x 102 mm, plywood parts laid out on 1200 x 1200 mm sheets - a separate file for each thickness. The Drawing origin, 0,0 to be at the bottom left corner of the drawings. These files will not attract drawing fees.

Contact Dave Brown for more details.
52 Outer Crescent, Lithgow, 2790 NSW
email: <daveb@ix.net.au>
www.modeldraughting.com

DESIGN	SOURCE/PLAN	TYPE	PRICE	POST				
DG67		O/T Glider	62.00					
Brooklyn Dodger 120%	Sam 600	Old Timer			Lit Diamond 120% (1/2A)	Arborne Plan	Old Timer	52.00
Buzzard Bombshef		Old Timer	60.80		Pacific Ace (ribs)	Pond Plan	Old Timer	
Cavlier-OT		Old Timer	71.00		Pencil OT		Old Timer	
Cloudster		Old Timer	62.00		Playboy 105%		Old Timer	66.00
Cumulus 100%	Storshaw	Old Timer	66.00		Playboy 105% wing only		Old Timer	37.00
Dallaire 90"	Model Builder	Old Timer	76.00	8.45	Playboy 92%, 100%, 105% 115%	Old Fashion Hobbies	Old Timer	56.00
Dream Weaver 135%		Old Timer			Playboy cabin		Old Timer	53.00
Experimental		Old Timer			Playboy cabin 1/2A		Old Timer	33.80
Feather Merchant		Old Timer	73.00		Rhino 1/2A OT		Old Timer	
Lancer		Old Timer	50.00		Rambler 1/2A	Arborne Plan	Old Timer	
Lanzo Airborn Glider hoops	Lanzo	Old Timer	86.00		Record Hound	American version	Old Timer	67.00 3.00
Lanzo Bomber 100%	Lanzo	Old Timer	70.00		Red Zephyr		Old Timer	55.00 4.00
Lanzo Bomber 85%		Old Timer	62.40		Sailplane	Goldberg plan	Old Timer	
Lanzo Bomber 85% wing only		Old Timer	37.00		Spacer 108%		Old Timer	50.60
Lit Diamond 1/2A	Arborne Plan	Old Timer			Tantoo Terror 75"	Model Builder	Old Timer	48.50 8.60
Lit diamond 115% (450 sq")	Arborne Plan	Old Timer	50.00	3.75	Tantoo Terror 90"	Model Builder	Old Timer	59.00 8.60
					V Tail Swallow	Magazine	Old Timer	
					Yates Pylon		Old Timer	57.00
					Zoot Suit Ribs set		Old Timer	18.00

NIDDRIE MODEL AIRCRAFT SUPPLIES HOBBY SERVICE ELECTRONICS

85A Hoffmans Road, Niddrie VIC 3024 Phone: 03 9331 0656 Fax: 03 9331 2633
e-mail: <rcmodels@bigpond.net> www.bigpond.net/~rcmodels/

FOR ALL YOUR MODEL AIRCRAFT NEEDS

MOTORS: (Saito, MDS, GMS & OS), Hitec & Futaba Servos & Accessories.

Kits, Complete range of Dubro, Nicad Batteries & Chargers.

MAAA Testing Station, Australia's Service Centre for Hitec & Futaba.

Silk: (Red, Blue, Yellow & White)

Mail Order Service: BankCard, Visa, MasterCard welcome.

EST. 1977



Tony Cincotta's

SATURN HOBBIES

THE MEETING HOME OF SAM 600

<http://homepages.tig.com.au/~saturn/index.htm>
e-mail: <saturn@tig.com.au>

New E.T. (Extra Thick) Mega Bond

non-bloom for canopies & hinges.

Extra Thick 1oz \$10.95 2oz \$17.95

Partial Kits:

Lanzo Bomber (1/2 A 2cc 50") \$49.95

Lanzo Bomber (70%) \$69.95

Swiss Miss (NEW - full Kit)
covering & glue included \$109.00

DixieLander (full kit) \$99.00

Stomper - free flight kit \$99.95

1,000 sq ins (partial kit) \$79.95

58" Lanzo Bomber Burford

2.5cc Partial Kit \$79.95

(All prices include GST)

OzCover Light & OzCover

1m x 2m \$10.95 1m x
5m \$25.95



RhinoCover white -

28' x 2m \$14.95 28" x 5m \$34.95

Hours: Tuesday - Thursday 9:00 till 6:00

Friday 9:00 till 7:30

Saturday 9:00 till 4:00

Mail Order a Speciality: Fax 03 9579 7666

1st Floor Ardena Court, East Bentleigh 3165

Phone: 03 9579 7555 03 9579 7566



KNOWN FOR QUALITY RADIO SERVICE

**Radios serviced and
Certifications**

**Battery packs at
Competitive prices**

Rogers Radio Control Repairs
25 West Fyans Street, Geelong 3220
P.O. Box 789, Belmont VIC 3216
Phone: 03 5222 5085 Fax: 03 5224 2064
email: <roger@rogersradio.com.au>
www.rogersradio.com.au

"The Thermaleer" is the official newsletter of SAM 600 of Australia, Victorian R/C Old Timers Association (SAM 600) Inc.

President Chris Lawson
(H) 03 5275 8482
(email through Peter Hooking)

Vice President Peter Hooking (H) 03 5248 5461
Contest Director (W) 03 9569 4440
& **NOTAM Co-ordinator** email <speterh@veloaus.net>

Acting Secretary John Whittaker,
03 5225 2900 (F) 03 5225 2955
email <johwh@kempeint.com.au>

Treasurer Norm Campbell, (H) 03 9836 0457

Auditor & Public Officer Ray Woodhouse
(W) 02 6056 6900 (H) 02 6056 2303
PO Box 1026 WODONGA 3689
e-mail <RW@virtualtax.com.au>

Committee Trevor Boundy
WebMaster & Historical records (H) 03 5628 7688
email <600@boundy39.com>
"SAM 600" and the "Model Recognition Page" can be reached from <www.boundy39.com>

Publisher/Editor Peter Bennett
(H) 03 9645 7272 (Fax) 03 9645 7732
Mobile: 0412 336 446
email <pcb@primus.com.au>

Safety Officer Fred Roberts
03 5256 2273
fredr@bcinternet.com.au

Committee & Newsletter Mailings Fred Stebbing
(H) 03 9787 1802
email <fstebbing@bigpond.com>

The Thermaleer

SAM 600 of Australia Newsletter

2
COLUMBA/HEATHERVILLE RD
Main Rd TURNS LEFT TO WARDS PYRAMID HILL
1 KM. R.H.S ROAD STRAIGHT AFTER CORN FIELD
10.AM.

If undelivered please return to :- 3 St Vincent Place ALBERT PARK 3206 AUSTRALIA



Peter "Condo" Smith from SAM 1788
Shown at the SAM Champs Downrigger
with his Nostalgia model the "Falson".