



270
WESTERN AUSTRALIA



SAM 1993



SAM 84 Queensland

The Australian Thermaleer

Information, Competition Results and Articles for Australian SAM Chapters and Groups

Issue No.9 October - December, 2021.



A Happy Christmas to All!

and

A Great Flying New Year for all Model Flyers!

From The Australian Thermaleer.



SAM 600 Australia - Victorian Old Timers Association Inc.



President
Steve Gullock
 Mobile: 0428 464 506
 Email: fryerkd@gmail.com

Vice President
Lyn Clifford

Home: 03 5456 2541
 Mobile: 0429 165 669
 Email: lynclifford@exemail.com.au



Secretary/Treasurer
Public Officer
Don Grant
 Home: 03 9706 2074
 Mobile: 0402 918 936
 Email: dgrant@dcsa.net.au



Contest Director
Kevin Fryer

Home: 03 9842 4361
 Mobile: 0438 561 440
 Email: fryerkd@gmail.com



Committee Member
Ted Arup
 mtamup@bigpond.com

Newsletter Co-Ordinator
Brian Laughton
 brianlaughton1957@hotmail.com

Safety Officer
Steve Gullock
 coodgiebear@hotmail.com

"The Thermaleer" is the official newsletter of SAM 600 of Australia, Victorian R/C Old Timers Association (SAM600) Inc.

SAM 600 PRESIDENT'S REPORT.

From Steve Gullock

Hi Karonas

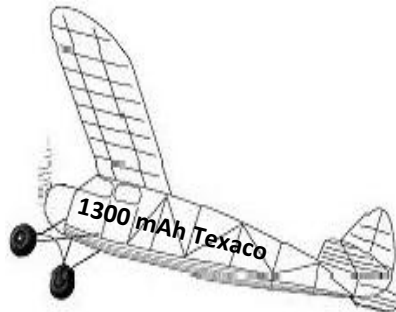
SAM600 finally got the Annual General Meeting done and a competition flown successfully at Cohuna in late November with both I/C and Electric having a big weekend.

The 1300 mAh battery size Texaco seems to be getting a following, pity it cant be adopted for the Nationals.

Hopefully it can be flown at the VMAA weekend when we get our rule changes done, hopefully before the Nats would be nice.

To all members I wish you a very happy and safe Christmas and a happy New Year, see you all in 2022.

Steve.



At the recent Oldtimer competition at Cohuna Brian Dowie and Kevin Fryer were presented with certificates and mugs in appreciation and recognition of their long services to SAM 600. Unfortunately Brian Laughton, who was also to be presented a certificate and mug in company with Brian D and Kevin, was not in attendance at Cohuna. Arrangements were made for Brian to be presented with his certificate and mug by Kevin at Brian's club at the earliest opportunity.



Oldtimer Weekend - Cohuna
27th-28th November, 2021.
Report by Kevin Fryer.

Cohuna turned on some very good weather, with good lift if you could find it.

It was good to see Mr Geoff Potter looking so well. Thanks Geoff for making the effort to come.

There was a bit of air traffic to contend with. The control system that was used to deal with this worked very well with no drama.

The first event was Electric 1/2A Texaco. Pat Keely came in just 6 seconds in front of Don Grant. Steve Jenkinson and Geoff Potter tied for 3rd and Lyn Clifford took 5th followed by Steve Gullock and Max Heap who both landed out.

The next event was Electric 1300mAh Texaco. This was the first time we have run this event. It makes the Electric Texaco rules very simple. The battery used is a Lipo 3S 1300mAh battery, the same as used in a Radian electric glider. A real good fun event.

A full-size aircraft decided to land during the fly-off and we all landed. So the result was decided by the capacity left in the battery. Max Heap cleaned up all of us.

Steve Gullock won Buford by default. Don and I discover our skills as launchers were lacking and, accordingly, we are now attending launch training.

Sunday was another good day but lift was hard to find. In Duration Pat Keely was the only pilot to score 420 in three rounds in Duration. Kevin was second and Rob Taylor came third.

Texaco was won by Steve Gullock who flew very well to beat Pat Keely. Rob Taylor came in third.

Steve had his DC WildCat engine running very well to win '38 Antique.

It was obvious that most of us were a bit rusty with our flying due to not being able to practice.

For me it was good to be able to get this weekend's flying under my belt before the West Wyalong Nationals.

I hope you all have a safe and happy Christmas.

Kevin Fryer.



Electric 1/2A Texaco L-R Don Grant 2nd, Pat Keely 1st, Geoff Potter & Steve Jenkinson 3rd.



Kevin Fryer presented Brian Laughton with his certificate and mug in appreciation and recognition of his long services to SAM 600 at Brian's club field recently. Brian Dowie and Kevin received their certificates and mugs at the Cohuna Old-timer contest on 27th November, 2021



Above: Electric 1300 mAh Texaco L-R 2nd Gavin Dunn, 1st Max Heap, 3rd Steve Gullock



Above: Burford L-R Steve Gullock 1st, Kevin Fryer 2nd.



Texaco L-R Robert Taylor 3rd, Steve Gullock 1st, Pat Keely 2nd.



Duration L-R Kevin Fryer 2nd, Pat Keely 1st, Lyn Clifford 3rd



Above: '38 Antique L-R Pat Keely, Steve Gullock 1st, Geoff Potter, Kevin Fryer.



Cohuna 27th - 28th November 2021 - IC Oldtimer Results

BURFORD

| Name | Model | Engine | Sec | Rd1 | Rd2 | Rd3 | Rd4 | F/Off | Total | Place | Stebblings |
|---------------|------------|--------|-----|-----|-----|-----|-----|-------|-------|-------|------------|
| Steve Gullock | Swiss Miss | B/B | 40 | 300 | 300 | 300 | | 380 | 1280 | 1 | 4 |
| Kevin Fryer | Spacer | P/B | 40 | 295 | 300 | 300 | 300 | 215 | 1115 | 2 | 3 |
| Don Grant | Creep | P/B | 40 | 300 | 300 | 233 | 300 | Crash | 900 | 3 | 2 |
| Lyn Clifford | Playboy | B/B | 40 | 125 | | | | | 125 | 4 | |
| Geoff Potter | Spacer | B/B | 40 | DNF | | | | | DNF | | |

DURATION

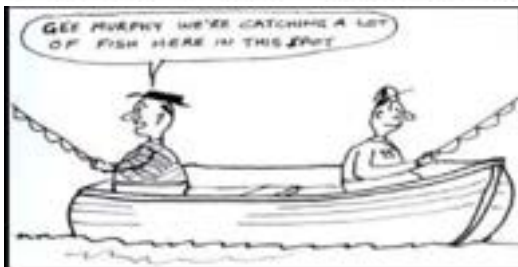
| Name | Model | Engine | Sec | Rd 1 | Rd 2 | Rd 3 | Rd 4 | F/Off | Total | Place | Stebblings |
|----------------|--------------|------------|-----|------|------|------|------|-------|-------|-------|------------|
| Patrick Keely | Lanzo Bomber | OS 56 FS | 32 | 420 | 362 | 420 | 420 | | 1260 | 1 | 4 |
| Kevin Fryer | Playboy | OS 62 FS | 32 | 420 | 368 | 360 | 420 | | 1200 | 2 | 2 |
| Lyn Clifford | Cumulus | YS 63 | 28 | 420 | 261 | 420 | 286 | | 1126 | 3 | 1 |
| Steve Gullock | Lanzo Bomber | Enya 30 2s | 25 | L/O | 348 | 201 | 236 | | 785 | 4 | |
| Geoff Potter | Playboy | TT 21 2s | 25 | 278 | | | | | 278 | 5 | |
| Rob Taylor | Cumulus | YS 63 | 28 | | | | | | DNF | | |
| Brendan Taylor | Cumulus | YS 63 | 28 | | | | | | DNF | | |

TEXACO

| Name | Model | Engine | Mil | Rd 1 | Rd 2 | Rd 3 | Rd 4 | F/Off | Total | Place | Stebblings |
|---------------|---------------|---------------|-----|------|------|------|------|-------|-------|-------|------------|
| Steve Gullock | Lanzo Bomber | Irvine Diesel | 15 | 335 | 600 | 600 | 600 | 878 | 1678 | 1 | 4 |
| Patrick Keely | Lanzo Airborn | OS 61 FS | 15 | 600 | 600 | 380 | 600 | 796 | 1596 | 2 | 3 |
| Rob Taylor | Cumulus | | 15 | 542 | 240 | | | | 782 | 3 | 1 |
| Kevin Fryer | Cumulus | Irvine 40D | 15 | 600 | L/O | | | | 600 | 4 | |
| Geoff Potter | Lanzo ? | Enya 60 FS | 12 | L/O | | | | | | | |
| Lyn Clifford | MG | ASP 65 | 15 | DNF | | | | | | | |

'38 ANTIQUE

| Name | Model | Engine | Sec | Rd1 | Rd2 | Rd3 | Rd4 | F/Off | Total | Place | Stebblings |
|---------------|---------------|---------------|-----|-----|-----|-----|-----|-------|-------|-------|------------|
| Steve Gullock | Stick | DC Wildcat | 205 | 271 | 438 | O/R | | | | 1 | 3 |
| Kevin Fryer | Red Zepher | Super Cyclone | 76 | L/O | | | | | | | |
| Geoff Potter | TrentonTerror | ED 46 | 180 | DNF | | | | | | | |
| Pat Keely | Stick | Madewell49 | 126 | DNF | | | | | | | |



Cohuna 27th - 28th November 2021 - Electric Oldtimer Results

ELECTRIC 1/2A TEXACO

| Name | Model | Battery | Rd 1 | Rd 2 | Rd 3 | Rd 4 | F/Off | Total | Place | Stebblings | |
|-----------------|------------------|---------|------|------|------|------|-------|-------|-------|------------|---|
| Pat Keely | Stardust Special | | 600 | 600 | 600 | | | 1762 | 3562 | 1 | 4 |
| Don Grant | Lanzo Bomber | | 600 | 600 | 600 | | | 1756 | 3556 | 2 | 3 |
| Steve Jenkinson | Stardust Special | | 600 | 600 | 600 | | L/O | 1800 | 1800 | 3 | 2 |
| Geoff Potter | 'Lil Diamond | | 600 | 600 | 600 | | L/O | 1800 | 1800 | 3 | |
| Lyn Clifford | Stardust Special | | 600 | L/O | 600 | 307 | | 1707 | 1707 | 5 | |
| Steve Gullock | Stardust Special | | 552 | 600 | L/O | | | 1122 | 1122 | 6 | |
| Max Heap | Stardust Special | | 60 | L/O | | | | 660 | 660 | 7 | |

ELECTRIC 1300 TEXACO

| Name | Model | Battery | Rd 1 | Rd 2 | Rd 3 | Rd 4 | F/Off | Bat%/Total | Place | Stebblings |
|---------------|------------------|---------|------|------|------|------|-------|------------|-------|------------|
| Max Heap | Lanzo Bomber | | 600 | 600 | 600 | | | 83% | 1 | 4 |
| Gavin Dunn | Lanzo Racer | | 600 | 600 | 600 | | | 63% | 2 | 3 |
| Steve Gullock | Lanzo Bomber 70% | | 600 | 411 | 600 | 600 | | 55% | 3 | 2 |
| Kevin Fryer | Cumulus | | 600 | 600 | 600 | | | 44% | 4 | 1 |
| Geoff Potter | Lanzo ? | | 600 | 307 | 600 | | | (907) | 5 | |
| Pete Miller | Rambler | Crashed | | | | | | | | |

No Fly-Off because of plane coming in to land. Places judged on battery percentage left.

Stebbing Memorial Trophy 2021

Stebbing IC Points Tally

- 1st Steve Gullock 11
- 2nd Pat Keely 7
- 3rd Kevin Fryer 5
- 4th Don Grant 2
- 5th Lyn Clifford 1
- 5th Robert Taylor 1

Stebbing Electric Points Tally

- 1st Max Heap 4
- 1st Pat Keely 4
- 3rd Don Grant 3
- 3rd Gavin Dunn 3
- 5th Steve Jenkinson 2
- 5th Steve Gullock 2
- 6th Kevin Fryer 1

I HAVEN'T LOST ALL MY MARBLES YET... BUT THERE IS DEFINITELY A SMALL HOLE IN THE BAG SOMEWHERE..





"The Stebbings Memorial" Champ of Champs FINAL RESULTS 2021

| EVENT | 1 st Place | 2 nd Place | 3 rd Place | No. in Flyoff | POINTS I/C | |
|--|-----------------------|-----------------------|-----------------------|---------------|-----------------|----|
| COHUNA 18 th -19 th APRIL 2021 | | | | | Pat Keely | 18 |
| Texaco | Pat Keely | Don Grant | Robert Taylor | 3 | Steve Gullock | 15 |
| Electric Texaco | Don Grant | Steve Gullock | Greg Jenkinson | 4 | Lyn Clifford | 11 |
| Duration | Lyn Clifford | Pat Keely | Robert Taylor | 2 | Don Grant | 11 |
| Electric 1/2 A | Steve Jenkinson | Pat Keely | Max Heap | 8 | Steve Jenkinson | 6 |
| Burford | Steve Jenkinson | Lyn Clifford | Greg Jenkinson | 3 | Kevin Fryer | 5 |
| VIC/SA STATE CHAMPS 1 st -2 nd MAY 2021 | | | | | Greg Jenkinson | 4 |
| Electric 1/2 A Tex | Steve Jenkinson | Max Heap | Pat Keely | 8 | Robert Taylor | 4 |
| Burford | Steve Gullock | Steve Jenkinson | Don Grant | 3 | Brendon Taylor | 2 |
| Duration | Lyn Clifford | Pat Keely | Brendon Taylor | 3 | POINTS ELECTRIC | |
| Texaco | Don Grant | Greg Jenkinson | Pat Keely | 2 | | |
| Electric Texaco | Max Heap | Steve Gullock | | 2 | Max Heap | 14 |
| COHUNA OLDTIMER 27 th -28 th NOVEMBER 2021 | | | | | Steve Jenkinson | 10 |
| Electric 1/2 A Tex | Pat Keely | Don Grant | Steve Jenkinson | 4 | Steve Gullock | 10 |
| Elec 1300 Tex | Max Heap | Gavin Dunn | Steve Gullock | 4 | Don Grant | 9 |
| Burford | Steve Gullock | Kevin Fryer | Don Grant | 3 | Pat Keely | 9 |
| Duration | Pat Keely | Kevin Fryer | Lyn Clifford | 1 | Greg Jenkinson | 4 |
| Texaco | Steve Gullock | Pat Keely | Robert Taylor | 2 | Gavin Dunn | 3 |
| '38 Antique | Steve Gullock | Kevin Fryer | Geoff Potter | - | Robert Taylor | 2 |
| NOTES: | | | | | Lyn Clifford | 2 |
| All other scheduled events were cancelled. | | | | | Kevin Fryer | 1 |
| Cohuna November Event replaced Ballarat Event which was cancelled. | | | | | Ted Arnup | 1 |
| No fly-off in Elec 1300 Texaco Event at Cohuna. % of remaining battery used. | | | | | | |



Barry Barton ably assists **Graham McDonald** in his pursuit of even higher thermal activity. (Photo by Trevor Boundy taken at the Haddon meeting last November, 2001).

**Gone
But not
Forgotten**

Basil Healy, Winner of the Entry Prize at the Jerilderie Tri-State Gas Champs, 2002. His prize, a Magnificent RTF New Timer Electric kit kindly donated by Tony Farnan and Model Engines, sole Australia Agents.



June * July 2002

SAM 600 of Australia Newsletter # 80

From SMALLnet**Sam Brauer posted this #423****<brauer@bccresearch.com>**

A couple of postings back, I wrote to tell of my experiences using Oracover Lite. Several SMALLsters emailed me asking if I had tried Solarfilm Lite (aka So Lite), and I finally gave it a shot last night. Hooboy! Most of the stuff I've read on So Lite has been highly laudatory.

Here's an opposing viewpoint... (As a cautionary note, this was my first time with the stuff - however, Oracover Lite was the easiest-to-use covering I've ever tried first time out. Maybe I'll get the hang of this So Lite by the time I'm covering the airplane; but there's no getting around the fact that it is trickier to use.)

I suspect that both Oracover Lite and So Lite are polyester films. Apparently, the colour for the film is applied with the adhesive. I naively thought that both films would handle in a similar manner. Big mistake!.. So Lite is being billed as one of the lightest coverings available. I still don't think it's lighter than a good doped Japanese tissue, but I don't want to try weighing the stuff. Doing that will present difficulties - see below. There is no question that So Lite is lighter than Oracover Lite though - and I suspect it's actually lighter than Reynolds Wrap. Pros and Cons:

Pros: Very light weight, great shrinkability, easy to shrink over complex curves, highly pliable. All you need to do is get the film tacked to the perimeter of the structure. The stuff will shrink enough to do the rest -- assuming you

don't let a fold happen. Since it's so thin, it's hard to see covering mistakes.

Cons: stiff tears easily. It does fine in the finger-poke test, but if you start a rip, it'll keep going readily. You need a sharp blade cutting the stuff.

Movers and Shakers.**By Bill Schmidt.**

Many of the old spark ignition engines were real vibrators and really shook your model. I've talked to many older modellers and mentioned this fact to which they replied, "We didn't know the difference; we just flew them!"

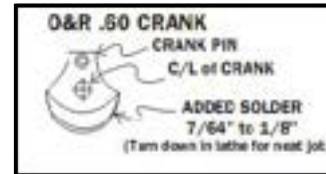
One of the worst examples of this poor internal balance is the Bantam .19. This engine is beautifully and lightly built except for the piston. This is turned from iron bar stock and is paradoxically heavy by comparison to the other parts of the engine. The counter balance on the tiny crank is miniscule and cannot be increased due to clearance requirements of the rotary valve and rod. I once tried to fly a Bantam .19 in an "A" Ignition Playboy. The plane became a blur whenever the engine was running. I tried everything to correct the out-of-balance condition but gave up when the spot welds shook loose on the NiCad battery pack and it crashed. The Bantam looks nice on the display stand.

Have you looked at a new O.S. or Enya engine?

Even though the piston is light aluminum or iron in the small sizes, the crank counterweight is quite large.

We are told that a single cycle engine cannot be truly balanced, but a formu-

la exists that comes as close as possible to the physics involved. Take 1/8 the weight of the rod and 1/4 the weight of the piston and put it on the crank counterweight. This states it in general terms.



Now, the O & R.60 is another example of a vibrating engine.

This is because it has a cast iron piston and a large displacement. A lot of power is lost in this shaking and vibrating. I have found that by adding solder to the outside edge of the counter-weight of the crank on an Ohlsson .60, a much smoother engine is obtained as well as a couple of rpms (250).

This applies to side port and FRV models. Put only about 1/8" of solder on the crank and check for piston clearance on bottom dead centre.

The other Ohlssons have light weight drawn sheet steel pistons and do not have the same problem. I found it necessary to use muriatic acid to properly tin the crank to securely accept the solder. Be sure to clean up after the job is complete to prevent corrosion. Do not overdo it and put some on the back side of the counter-weight. You will exceed the amount required and end up overbalanced as bad or worse. Stick to the 1/8" on the edge and enjoy your new engine. I consider this modification the single most important change you can make to an Ohlsson .60.

Note from Ed Shilen**<ed1char@aol.com> 07/04/02**

Seems to be a lot of Bomber bashing on SAMTalks; personal opinions and

likes/dislikes are OK, but some of those gentlemen don't seem to understand why they are so popular in RC assist.

1st reason is it's the best performing model there is for SAM RC assist. (in competition cream rises to the top).

2nd reason is we are allowed to scale up & Down. (the free-fighters were smarter and don't allow scaling). Those two reasons result in competition skies to be filled with Bombers.

For the past several years the National overall RC championships have been won by pilots flying mostly Bombers in various sizes. Bomber's have won the overall Champs for me twice. Damn right I like Bombers.

I and most of the serious competition pilots I know are constantly looking for other designs to equal the Bomber.

Models I know of that come close to Bomber performance are: Weathers Westerner, Playboy, Folly. Cumulus, and others I don't recall at the moment. There are pilots who do very well in competition, and take great delight in doing so without Bombers. Tileston being the most notable.

My favourite models are those I flew in the 1940's: Zipper, Mercury, Answer, and New Ruler. These were the first models I built when I got into RC assist in 1986. They were all fun to fly, and I still have the New Ruler and Mercury that I fly for fun. But when I got hooked on competition flying I found none to be competitive.

So don't knock the Bombers or their pilots. Most are great guys that enjoy flying many types of RC oldtimers, including the cabin models. Try one, you will like it.

Ed Shilen

**Note from Thomas Ryan**

<tryan@imcingular.com>

**Subject: Brogini Composite designs,
09/04/02**

Received a call yesterday from Don Brogini.

I took the opportunity to bug him once more regarding the Cabin Stardust Special which he needs to document in order to get approved.

I received a little more insight regarding the design's pedigree.

The first iteration was a Diamond Demon with the Stardust's wing, stab, and fin "short and small" This should be the easiest to approve because the only departure from the Demon is the Single Wheel. Flight direction for FF was left/left.

The Diamond Demon has a wider cord than the SS. Consequently, the hole behind the TE will need to be filled in. Still Don thinks this design will out-fly pseudo-pylons such as the Spearhead and the Ascender.

He not sure if it meets the cross section rule.

Following this success, Don modified the Demon fuse by pinching it along the top (thus closing the hole) and adding a bottom stringer to aid hand launches.

Now it's beginning to look like the Stardust!!

Briefly he flew it with a fuse resembling the Flounder with some success. Final fuselage version had a windshield like the Ascender. Fuse was built in three lengths.

I've also learned that the SS wing was available in 50", 55 1/2" and 60" lengths. For FF, some stability is lost with increased AR.

This design, with so many variations, should be an interesting addition to the designs so common at SAM comps.

In FF, Larry Davidson has had a lot of success flying it in A ignition. Tom Hunt has been successful flying a scaled version in SAM & AMA Electrics.

Holman has flown a 900 sq. version in C glow.

Most stunning though, has been the popularity of the design in Australia where it frequently places in several R/C assist events. (Ed. Note: Witness the success of Barry Barton and Brian Stebbing in 1/2 A Texaco and particularly "Condo" Smith, Nationals winner in the Duration event at Albury/Wodonga, 2002.)

BOGGED

I wonder if you saw last year
 When the gate was flooded and there was fear
 That one could ge bogged and have to scream
 For a tractor or towtruck or a four-horse team.
 Two or three fliers tried to drive through
 And come to a standstill, wheels spinning - mud flew.
 Then they climbed out and their wives took the wheel;
 The men yelled for assistance and we all came to heel.
 The car was slowly moved out of the mess
 Onto hard ground and (Can you guess)
 The men then had the gall to say -
 "Our wives were driving. Not us. OK?"

John Abbott. Oct. '90



Albatross Oldtimer Glider - builder unknown - typical Italian design and construction.



Blasts from the Past



Past President SAM 600 Chris Lawson



Nice photo of the Texaco winners taken at the 2002 South Australian State Champs, courtesy our VP, Peter Hosking. 1st Stan Gurr in the Centre with his Lanzo "Bomber", Second Peter White on left, Hammer designed Jasco "Flamingo", Peter Hosking 3rd on right, Lanzo "Bomber".



Surprised at Haddon was Thermaleer Editor, Peter Bennett, when he received a medallion inscribed "Half A World Champion 2002" and a bottle of Yellow Glen sparkling wine from Barry Barton, representing the TOFFS (Thursday Old Farts Fun Fly). The TOFFS had a team in the recent International Half A Postal Competition. (see #82 of "The Thermaleer" for results. What a surprise to learn TOFFS had achieved fifth place and did it with one flyer short on the team.

Reason for the presentation: TOFFS subsequently received the full scored results and learned Peter and his trusty yellow "Red Ripper" was the only flyer in all the teams to score the two 15 minute maxes. What a surprise!



Swan Hill, Easter 2007. '38 Antique Winners. Chris Britcher 2nd, Rod Adamson 1st, Down Howie 3rd.



Barry Barton & Dave Myer, are proudly displaying the sign denoting they are representing Victoria at the 2007 SAM Champs, Canowindra.



Father and Son Fred and Brian Stebbing, with Thunder Tiger 36 powered Playboys, Fred with Cabin Play-boy and Brian a Playboy Senior. Fred had the upper hand at this Haddon 2002 Duration Comp.

A close second place in Duration was SAM WebMaster Trevor Boundy, with his Saito 65 four stroke powered 103% "Super Quaker". Good to see Trevor back in the placings in this highly contested event.



Three great competitors at Cohuna after a sensational, thermal-catching fly-off in the Gordon Burford Event. Brian Laughton in the centre came in a well deserved first with his "Swiss Miss". On the left in second place is Chris Lawson with his "Mallard" and Fred Stebbing on the right, in third place, with his "Swiss Miss".



The Hat Trick Man !

Mark pulls off the hat trick by winning the Roy Robertson Memorial Trophy 2003 three times in a row. Congratulations Mark Collins.



Sth. Australian State Champs, Monarto Field 2003, Gordon Burford Event, L to R: Peter Bennett 2nd, Rex Brown 3rd, Fred Stebbing 1st.



This is one of my favourite old aeromodelling books, Model Aeroplanes by F.J. Camm published in 1920 (this is the 1922 reprint). Graham in Shepperton, England

From SAMTalk 3 June 2003

Ed Shilen et al. The necessary dwell angle is different for each engine. A high speed engine, like McCoy requires more angle, and a Brown requires less.

When the points first close, battery voltage is applied to the coil primary winding. The current in the circuit starts at zero and increases exponentially (but we can consider this to be linear for the time being). The magnetic flux in the core must reach the saturation level before a spark can be generated (when the points finally open).

The time required for coil saturation is influenced by the coil itself, and the applied battery voltage. Of course, time required also depends on the dwell angle and the RPM. For a given battery voltage, coil, and RPM, the dwell angle is thus specified by mechanical design.

Since dwell angle is not readily adjustable, the high speed limit can be increased by raising the battery voltage or by using a coil with a lower ohmic resistance in the primary winding. (faster saturation time).

Many users of spark engines are still trying to get along with two Alkaline cells. On a good day, with fresh cells, the no-load terminal voltage of a pair of alkalines is 3.0 volts. Under the heavy load of spark ignition, this might drop to about 2.7 volts. This is OK as long as the engine has adequate dwell angle.

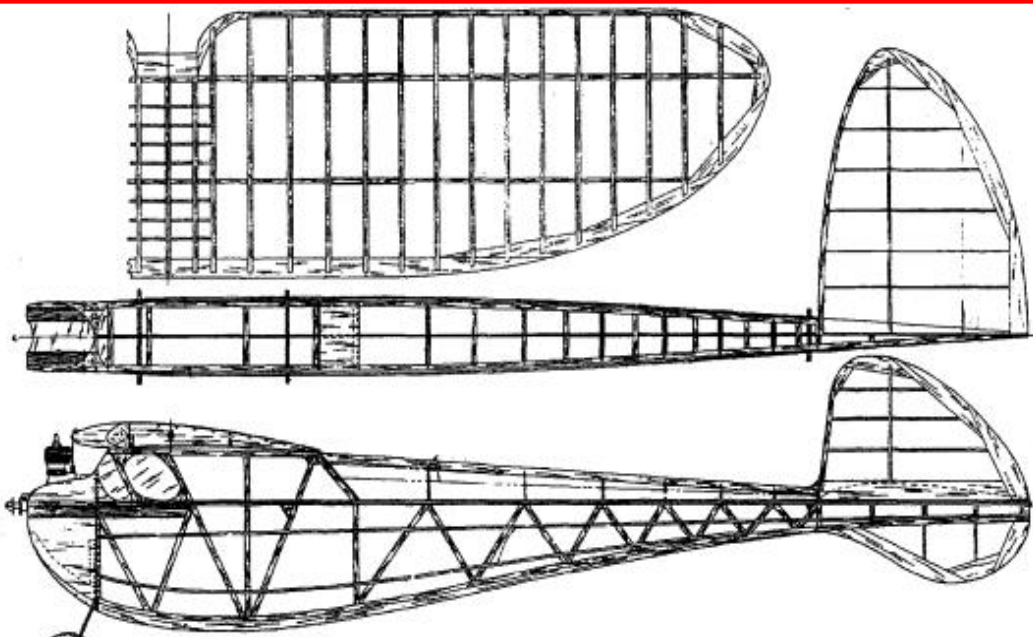
But three NiCd cells will have a terminal voltage of 3.6 volts under load, and this will not drop much if they are fully charged and in good condition. So the ratio of alkaline to NiCd terminal voltage under load will be about 75%. This means that your coil will require more time with alkalines to reach saturation with only 75% of desired voltage. The result might be stuttering at high speed due to insufficient dwell time, although low speed might run OK.

Remember that the energy delivered to the coil varies as the square of applied voltage. Therefore, a low battery voltage of 75% of the desired value results in a 50% reduction of energy per unit time delivered to the coil.

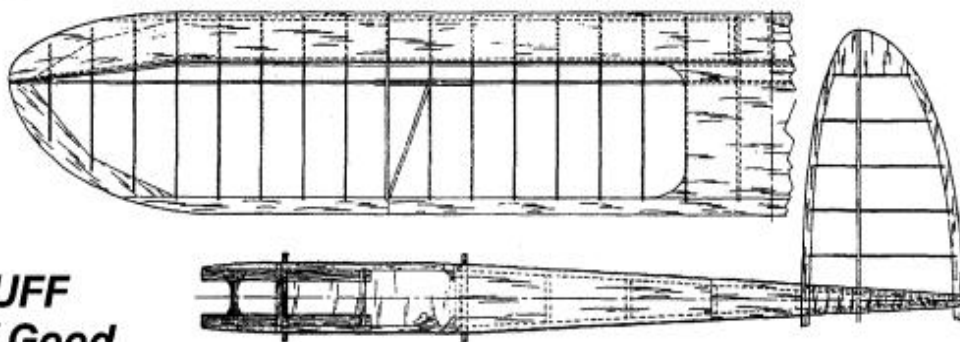
So, many to spark ignition problems can be solved by using 3 NiCd cells. Now, three NiCd cells of 270 mAh will weigh the same as two AA alkaline cells, and will certainly perform better, and should run for about 10 minutes between charges.

As Walt Huhn recently observed, many OT models have to be ballasted with lead weight to make the minimum weight requirements. So why not use larger batteries?

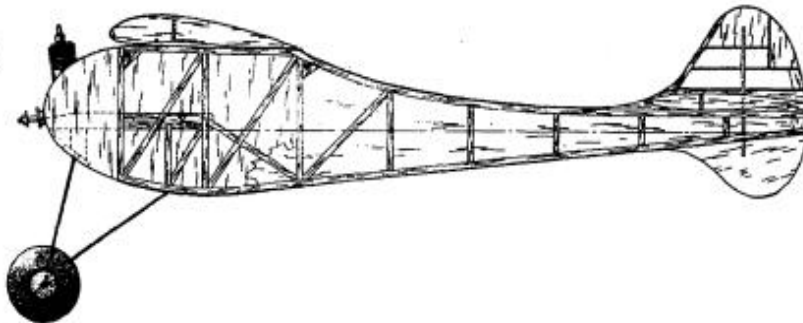
Floyd Carter, Aero Ply Research Co. 87211 Louvring Ln. Eugene, OR 97402



GLADIATOR 67" Schoenbrun March 1941



**GUFF
W Good
72"
June 1940**



THE YEARS OF MODEL ENGINE DEVELOPMENT

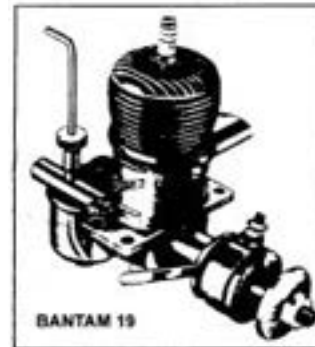
by Dan Howie

This article was the result of talking to the Editor about Elbert J Weathers, and his Westerner included in the Newsletter several issues ago. Elbert Weathers was one of the people that sought a change from Texaco contests in 1937, where models were lost and flew considerable distances on the allocated amount of fuel.

He designed his models for Precision contests that allowed a maximum engine run of 45 seconds, controlled by the new "Autoknips" timer, to cut off the ignition. The event would never become popular as it depended on judges to award points, up to a maximum of 100.

| | |
|---------------|-----------------|
| Engineering - | (20 points max) |
| Take Off - | (20 points max) |
| Flight - | (25 points max) |
| Landing - | (35 points max) |

The idea was to land in the flying filed and the model had a fairly high wing loading, with less chance of catching a thermal. The WINGED VICTORY model shown else where, had only a 5 foot span and was powered with a Bunch Gwin Aero motor. His models were good looking, well built and I expect hard to beat in such a contest. His WESTERNER design in 1938 also used an "Autoknips" timer, but this time to work the shutter on this camera plane, and was thus larger, to carry the weight of the camera.



BANTAM 19

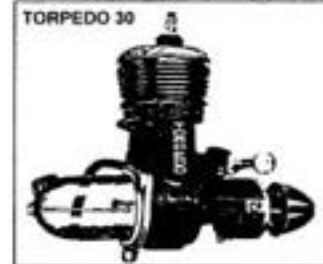
Up until 1939, when limited engine run, Duration events were introduced, motors were fairly low power, with the accent on economy. One motor that started the change, was the Ohlsson 23 side port introduced in late 1938. The motor was a conventional

design for the time, unless you consider spot welds an advanced way to hold on the cylinder.

The engine run time was set at 20 seconds and three classes were introduced. In class A maximum capacity was .20 cubic inches. A motor that was in this class was the Bantam 16 side port, made by Ben Shereshaw. Ben redesigned the motor, introducing rear disc rotary induction in a 19 size motor in 1939. This new form of induction, became the standard for racing type motors of high performance.

In class B, size was from .20 to .30 cubic inches. In 1938, Bill Atwood began making Phantom motors of .27 cubic inch capacity using front rotary induction and this was followed with his HI SPEED range of front induction models.

In June 1939, he introduced his Hi Speed Torpedo with a motor that still looks modern today. Capacity was .30

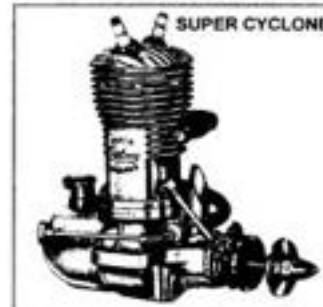


TORPEDO 30

cubic inches and weight only 4 1/4 oz. This design was so simple and advanced, with 4 long bolts holding the cylinder and alloy head. By 1940, the motor was claimed to develop maximum power at 14,000

revs. Forster Bros. looked at this motor, the Bantam and the Ohlsson 23. The Forster 29, introduced in May 1940; used rear induction from the Bantam 19, similar cylinder and head design to the Torpedo with front end attachment similar to the Ohlsson 23.

In class C, size was over .30 cubic inches. In October 1939, an entirely new and larger Cyclone engine was



SUPER CYCLONE

introduced by Aircraft Industries of Glendale, CA.

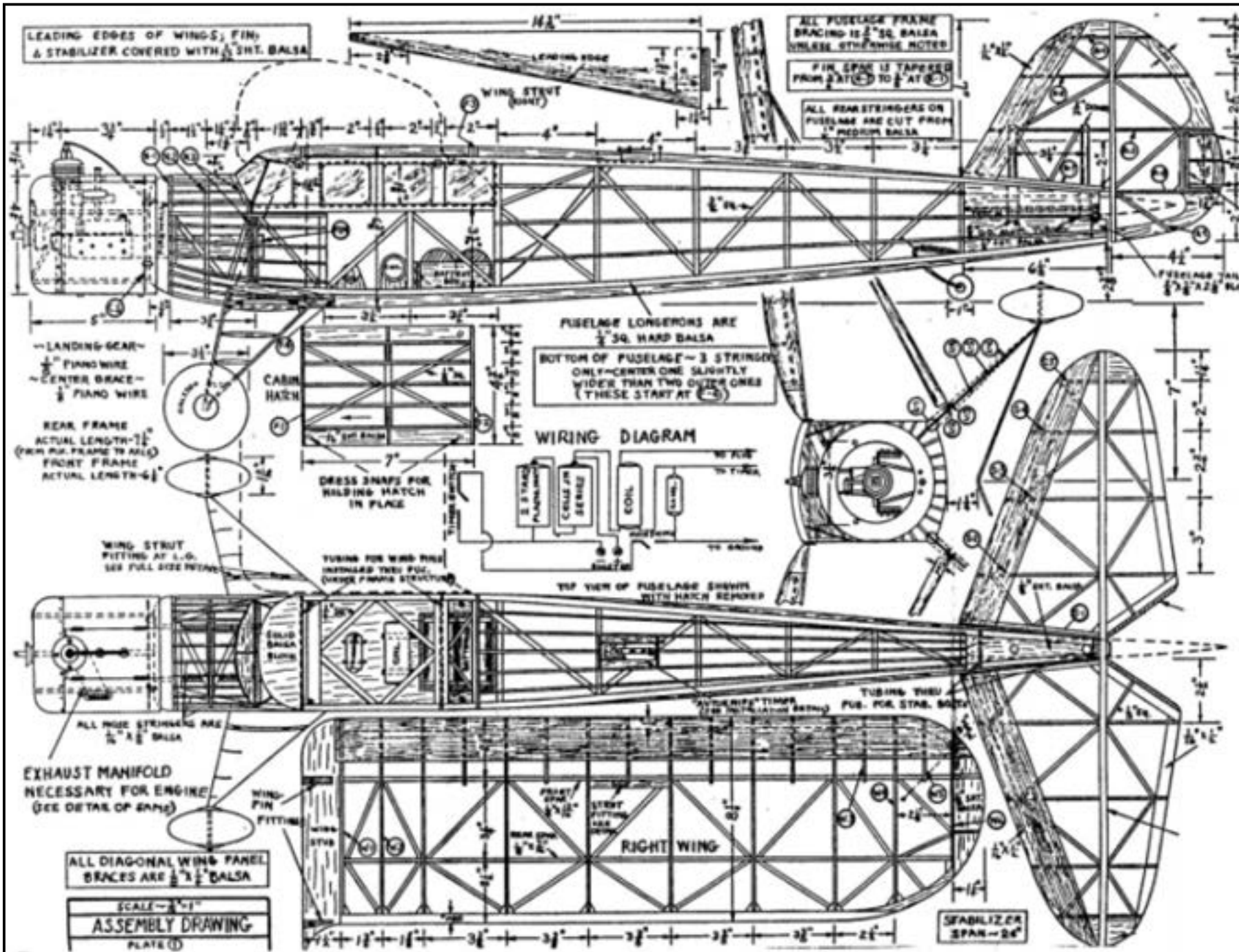
This was the Series G Super Cyclone of .65 cubic inches, designed by Mel Anderson. The engine was reduced in capacity to 60 size the following year,

also stronger mounting lugs and cylinder base was a feature of this GR model. The weight increased by about 1 ounce to 9 1/2 ounces with the improvements, but the motor became very popular and remains so today.

The 1939 to 1941 years bought a large number of new engine types in the quest for more power. One engine developed for model car racing was Ray Snow's Homet. The engine had an input from Mel Anderson, shown by the 4 bolts method of holding the cylinder to the crankcase. The use of rear rotary induction, proven on the Bantam and Forster, made it the first high performance racing engine.

All the engines mentioned above set the trend for the modern sports and racing glo motors we see today.





Close-up of hinged cowling side plate. Wing struts were functional. Very realistic looking craft.

ELBERT J. (JOE) WEATHERS
 1920s - 1984
 Began modelling in 1930
 Career

Won the Pacific Coast Gas Model Championship sometime September of 1939.

1935: Won the Richfield Oil Company scale model contest; was successful in many contests.

1935: Co-founded the San Diego Aeronauts and served as it's corresponding secretary until 1940.

Developed shock absorbing single-strut landing gear

Started Rite-Flite Specialties in 1946 and manufactured modelling accessories of his own design, including engine mounts, tank mounts and tailskid assemblies.

Was a member of the Model Airplane News magazine's Air Ways Club

Designed more than 90 of his own models ranging from racers to scale models to camera-carrying airplanes to endurance models.

Had designs published in all the major modelling magazines.

WINGED VICTORY by Weathers 60inch span scale like model called "A Precision Contest Gas Job" in original article.



**DURATION
TIMES**

Duration Times is the official Bulletin of SAM 1788
SOCIETY of ANTIQUE MODELLERS of AUSTRALIA Inc.
 SAM 1788 EXECUTIVE 2021-2022

President: Peter Scott 44 Ravel Street, Seven Hills, NSW 2348, 02 9624 1262.
 Vice President: George Bishop 13 Main Street, West Wyalong, NSW 2671, 0419 196 492.
 Secretary: Peter Smith P.O. Box 898, Parkes, NSW 2870, 0423 452 879.
 Treasurer: Gail Scott 44 Ravel Street, Seven Hills, NSW 2348, 02 9624 1252.

COMMITTEE
 Jim Roe 02 6495 3530, Basil Healy 02 6651 6563, Peter van de Waterbeemd 02 6496 4769
 Email for The Australian Thermaleer - peter_condo@yahoo.com.au



SAM1788 President's Report.

Christmas and New Year is nearly here, time to relax and enjoy the festive season with family and friends. Then another year coming up with, hopefully, a few more flying events.

I would like to have been telling you how the Parkes event went. It was all organised, mostly by Condo and the Parkes MAC, but had to be cancelled. Two reasons: the most distressing being the lack of entries, which I

will come back to, then the weather forecast, which this time was accurate with wind and rain.

Entries for the calendar this coming year will tell us how viable it is to even run a contest at all. If you, the flier, don't want to travel and fly your models, then there is no point in a few people putting in a lot of effort to arrange it all. Think on this deeply, I can do no more than get the information to you and 'phone you up to try to get you interested in an event. I should not have to worry about this, but I do. The writing is on the wall, no younger flyers, present flyers are getting older and less motivated. The result - how few is too few?

Changing the subject, as you read this it will be just a few days until the start of the Nats at the Adrian Bryant Field, West Wyalong. An Entry Form and the Nats Program for the West Wyalong Nationals has been circulated to all SAM 1788 members twice in recent months.

However, there is still time to submit an entry, There is **NO LATE ENTRY FEE**, so get to it, quickly! Just in case a Nats Entry Form and Program has been sent out with this newsletter. Feel free to call me anytime if you have any enquiries on my mobile 0403 629 721.

-) The AB Field at West Wyalong is looking great, the shade area has been increased by at least 50%, so plenty of shade.
-) Men's and ladies' showers and toilets, great camp kitchen area with powered campsites nearby.
-) Catered New Year's Eve party, with a big bonfire and at least 90 model fliers and friends to socialise with, on the newly surfaced area behind the club-house.

-) Indoor flying and swap meet at the Sports Centre. No shortage of accommodation in town, if you do not wish to camp/caravan.
-) Vintage free flight power event, which I have entered along with another couple of SAM entrants, and this event will have facilities for powered retrieval, and I could go on.
-) Scrutineering of SAM models will be in the camp kitchen on the 29th December, 9am-1pm. Models will be checked and weighed, cups of tea and coffee available.
-) Practise all day.
-) Don Southwell is bringing a heap of parts and models for the swap-meet and will help the contest director on the day.
-) I will be the man to ask questions on the day or 'phone any time to discuss any questions you may have.
-) I may alter the flying event times as to starting and finishing the events depending on weather conditions. Flyers will be informed of any changes the day before or by mobile phone - so, mobile number on the entry form please. This means if it is predicted to be a hot day we may start the contest early and run the afternoon contest straight after. We will see!
-) This is to make things more comfortable for you - the flyer.

So I hope I will see you there.

Season's Greetings to all. Safe flying, Peter Scott.

SAM 1788 President, Peter Scott, with his new 1949 Thunder King glider, thanks to Don Southwell

The Thunder King is now being covered.

It will be ready for the West Wyalong Nationals which start after Christmas.





SAM 1788

Secretary's Report.

From Peter (Condo) Smith.

Not a lot to report on the SAM 1788 front.

No competitions since New England Gas Champs last June.

The proposed 1st West Wyalong Nationals was postponed due to government regulations in place because of #19.

The event will now be run from Dec 28th to 4 January 2022, Hope people make the effort to attend!

The next scheduled OT competition in NSW is at Orange in February 2022.

2022 is the 40th anniversary of SAM 1788 championships. The Entry Form and other information was recently circulated by email. I hope people are starting to get models and travel organized.

There is no news on the proposed rules changes sent to MAAA, for the council conference in May 2021.

Try as I may for the last couple of competitions and previously when I secretary back around 2010, it is impossible to get most people to indicate if they coming or indeed give me numbers for catering.

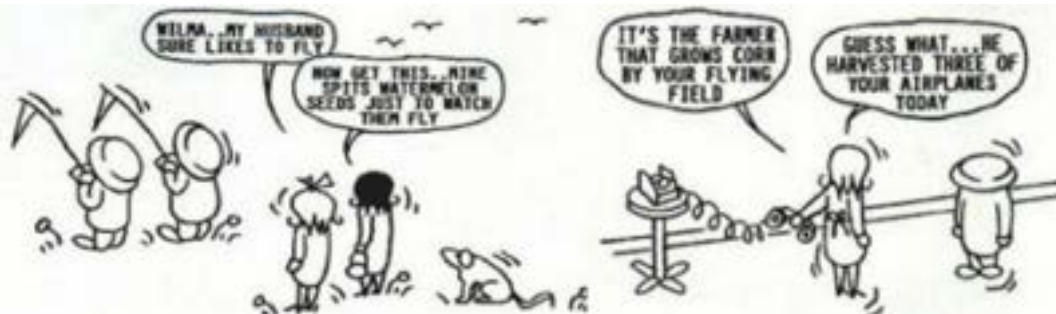
In my opinion it is unfair of people to want food and refreshments at the flying fields we attend if they not prepared to give an indication that they will be attending.

At the next SAM 1788 Committee meeting I shall be raising the possibility that we abandon offering catering, unless the host club specifically wants to cater without prior indication by those who might be attending.

Thanks to Ian Avery for preparing and sending out emails at short notice for me on behalf of SAM 1788.

Thanks to the other Committee members who have helped make my job easier.

On behalf of the Committee of SAM 1788 I wish everyone, joy, happiness and a safe Christmas. Condo. 9/12



ORANGE MODEL AIRCRAFT CLUB Inc.
 INVITES YOU TO ATTEND AND COMPETE FOR THE
Alan Brown Perpetual Memorial Texaco Shield
12th and 13th FEBRUARY, 2022
ORANGE MAC FIELD at BORENORE
 Saturday 12th - Commencing at 10am - Nostalgia, Burford,
 Old Timer Duration
 Sunday 13th - Commencing at 9.30am - 30min Cabin Scramble
 followed by ½A Texaco then Texaco
(All events will be flown to 2017 MAAA Rules)
 For Information contact: Peter van de Waterbeemd 02 6496 4769

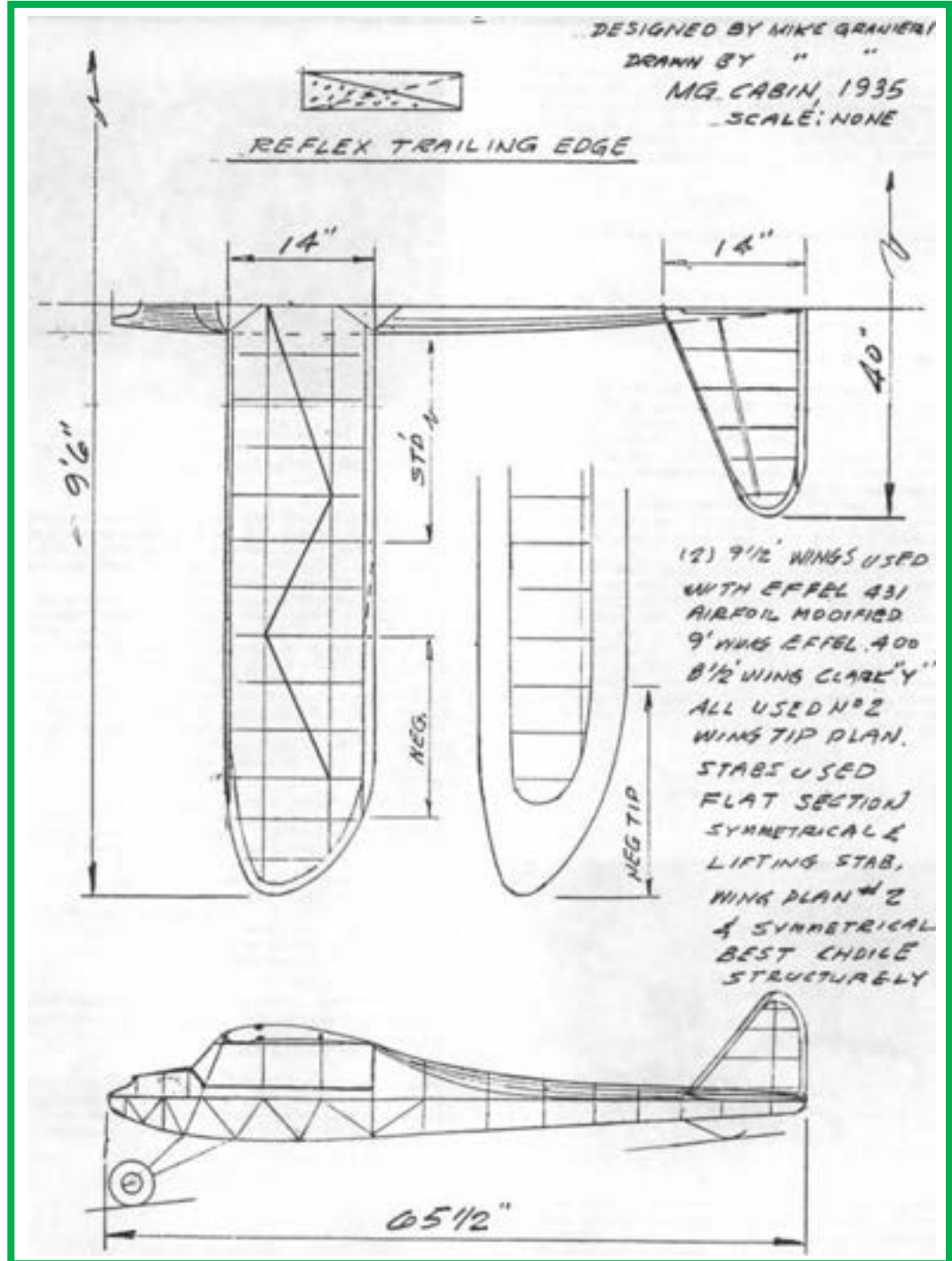
Vale
Adrian Albert Bryant
 Late of Banora Point.
 Passed away peacefully
 on
Saturday 4th December 2021.
Aged 91 Years.
Dearly loved Husband of Josephine
(dec'd).
Great friend, bush poet
and model aeroplane maker to many.
Benefactor
of the
NSW Free Flight Society's
Adrian Bryant Field
West Wyalong NSW

Adrian Albert Bryant
 03.02.1930 - 04.12.2021



SAM1788 Competition Calendar for 2022

- February 12-13 Alan Brown Memorial Shield - Orange**
Events:
 Saturday: Nostalgia, Burford, Duration
 Sunday: 30 min Cabin Scramble, 1/2A Texaco, Texaco
 Contact Person: Peter van de Waterbeemd 02 6496 4769
- April 2-3 Cowra Oily Hand (2021 re-run) - Cowra**
Events:
 Various events plus SAM1788 Cabin Scramble
 Contact Person: Andy Lockett 02 63423054
- April 13-18 SAM 1788 40th Championships - Canowindra**
Events:
 All 9 MAAA Old Timer Events
 plus Cabin Scramble and Control Line.
 Contact Person: Peter (Condo) Smith 0423 452 879
 See Official Program for details
- June 18-19 New England Gas Championships - Tamworth**
Events:
 Saturday: Gordon Burford 3/4, '38 Antique 2/3, Duration 3/4
 Sunday: 1/2A Texaco 3/4, Texaco 3/4, 30min Cabin Scramble.
 Contact Persons: Gary Whitten 0428 620 358
 Peter (Condo) Smith 0423 452 879
- July 8-10 West Wyalong Oldtimer - West Wyalong**
Events:
 Friday: 1.30pm Oldtimer Glider
 Saturday: Burford, Duration
 Sunday: 1/2A Texaco, Texaco, 30min Cabin Scramble
 Contact Person: Peter Scott 02 9624 1262
 Peter (Condo) Smith 0432 452 879
- Sept 2-4 Coota Cup Old Timer Weekend - Cootamundra**
Events:
 Friday: 1.30pm Oldtimer Glider
 Saturday: Burford 3/4, Nostalgia 2/3, Duration 3/4
 Sunday: 1/2A Texaco 3/4, Texaco 3/4, 30min Cabin Scramble.
 Contact Person: Peter van de Waterbeemd 02 6496 1252
 Peter (Condo) Smith 0423 452 879
 (Note: Nostalgia does not count towards Top Gun Trophy)
- October 21-23 Alternative Dates for West Wyalong Old Timer.**
- Nov 12-13 Golden West Old Timer Weekend - Parkes**
Events:
 Saturday: 2cc Duration 2/3, Burford 3/4, Duration 3/4
 Sunday: 1/2A Texaco 3/4, Texaco 3/4, 30min Cabin Scramble.





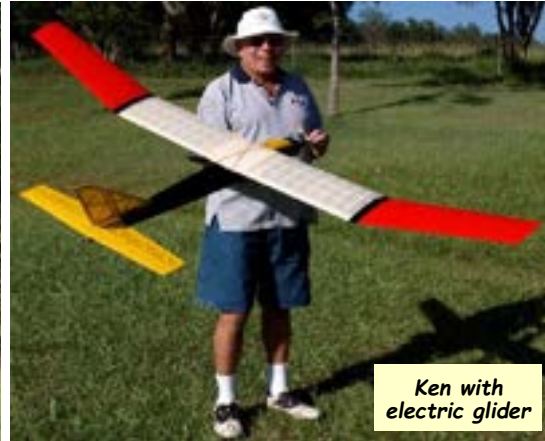
**The Ramblings
of an
Ancient Modeller.
From Basil Healy.**



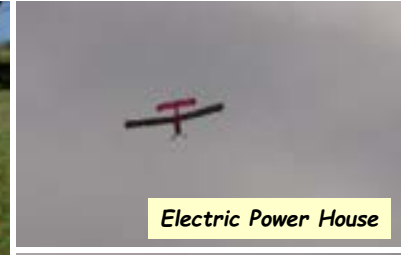
This issue of TAT I am presenting a pictorial portrait of my club, the Archville Eagles. We are a small club of less than 10 members but have diverse interests in Free Flight, Control line and Radio Control. Despite various interests of the members we all seem to get along well together.



David's control line scale Tiger Moth



Ken with electric glider



Electric Power House



Hawk ducted fan



Cardinal free flight



Buzzard Bombshell Enya 25 diesel conversion



Frog Fox 2 channel R/C assist



Busy day at the control line field



Helicopter Aerobatics



C/L Wombat and Piper Cub F/F



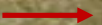
Southener 60



GB C/L conversion



Goldberg Sailplane





Sailplane and Powerhouse
share some good air
at the
Archville Eagles field.



At the Archville Eagles RC field

WHAT I HAVE BEEN DOING DURING COVID

By Peter (Condo) Smith

Just a small insight as to what I've been doing since covid arrived in OZ (possibly by aeroplane which is ironic..)

I decided to go back and build the first RC model I built, way back in 1969/70.

I remember walking down George Street. Sydney, with a large amount cash in my school uniform pocket, on my way to Hobbyco.

It was to be my first RC model. The nice man (?) at Hobbyco sold me a set of plans for a Phil Kraft Bar-Fli, see attached picture. It shows the actual plan, engine and radio.

While at Hobbyco, the nice man also sold me an engine, a Merco 61 and a Futaba Radio, plus all the wood listed on the plan.

Everything was cut over the next three holidays from school with a coping saw and sharp knife.

The first flight was exciting although short, ending in disaster. Apparently, I was supposed to unravel the aerial and hang it outside the model.

The sale of a full house aerobatic model as a first R/C model probably set my model flying back 15 years, however I did put the radio in my FF invader using rudder elevator and a Silver Swallow 2.5 Diesel. The Invader was fun as a FF model, start it point slightly off wind and let it go. Wherever it went I followed on a Honda 90 farm bike. I had many flights of five or more miles. That was one of the joys of living on a farm in the sticks I suppose. Eventually the Silver Swallow's gudgeon pin came loose.

Fast forward to 2020. When cleaning out the farm I came across the fuselage of the Bar-Fli. Then in 2021, I decided to build a new one and fly it as it was meant to fly.

Reading about the model online, Phil Kraft suggested it was a bit small at 58 inch span.

So with this in mind I got Wolf Models to cut me a Kit with 65 inch span. I won't be using the Merco at this time, but I plan to good use in the future.

In order to get my hand back into building I first repaired the wing of a small model, an Atlas, which I damaged earlier in the year at West Wyalong. Not using the left stick to change direction with Old Timer models I sometimes have trouble steering a pattern type model on the ground, hence the damaged wing.

For more building practice I decided to build a second model, a Sportmaster 60 kit Peter Scott gave me couple years ago, which I powered with a recently acquired Saito 17 Sparky. I like the Sparky and flying this model is really helping me to get my sport flying skills up to scratch, although the left thumb is still little lazy on rudder.

As luck would have it all modern radios have short aerals so I can do what I did 50 years ago and leave the aerial inside the fuselage ...

More History on my first Bar-Fli

About the time I was building this my first RC model, the Bar-Fli, my Dad was building a full size Piel Super Emeraude. →



See this web page re the Emeraude:

https://www.google.com/url?sa=t&source=web&rct=j&url=https://en.m.wikipedia.org/wiki/Piel_Emeraude&ved=2ahUKewiI5MW3-Ir0AhVOAHIKHfeuBkAQFnoECAMQAAQ&usg=AOvVaw01HJkbpUHiyetdzRJIId535

Emeraude, Super Emeraude, Aerial



| | |
|-----------------|--|
| CP301A Emeraude | |
| Role | Civil utility aircraft |
| Manufacturer | Coopavia, SCANOR, SOCA, Rouchaud, Renard, CAARP, Sinter, Aeronasa, Fairtravel, Durban, Garland, homebuilders |
| Designer | Claude Piel |
| First flight | 19 June 1954 |

A lot of the plywood and glue used for my first Bar-Fli was from the Emeraude build.

Picture A is a 50 year old glue joint using Resorcinol Formaldehyde glue. It was a red resin and creamy powder used in a 5:1 ratio. It stank like hell.

Even after 50 years the glue pulled fibres out the joined parts and it didn't break along the glue line.

Picture B is my first attempt at planking and to this day I still avoid planking if I can.

Picture C is some 50 year old Banana Oil which has faded and cracked over time.

Following are some photos of things I have mentioned here. You can see more on Condo's Old Timer Model Page on: <https://www.facebook.com/sam1788champ>





Above: The new Bar-Fli fuselage with the original radio and Merco 61 in tray. Below and right: Original Bar-Fli fuselage and plan, wing and tail.







A LARGER SENATOR

By Peter van de Waterbeemd

About half a year ago I built an electric RC version of the Keil Kraft Senator. There was a short article on this model in issue 8 of TAT. It flies very well on a 450 mAh 2S battery.

Ian Avery expressed some surprise that I hadn't built a larger version so in order to while away the hours of Covid imprisonment, a 200% Senator was built.

It has been powered by a small geared outrunner, another find in the bits box, and using an 1800mAh 3S pack, it flies and glides for quite extended flights.

The larger battery was required for balancing purposes.

Construction is spars and longerons from Queensland Hoop Pine with balsa ribs and the remainder is Paulownia. Covering is Coverite Micafilm.

All up weight is 935gm (including battery) compared to the original model of 183gm.

That's about five times the weight but only four times the wing area. Hmmm.....

Anyway, a fun model to fly.
Peter van de Waterbeemd.



GO.

The little Cox's run in the pits singing their beautiful song, that is until the CD says, "GO!"

Thermals are everywhere as the birds soar around, but they disappear as soon as the CD says, "GO!"

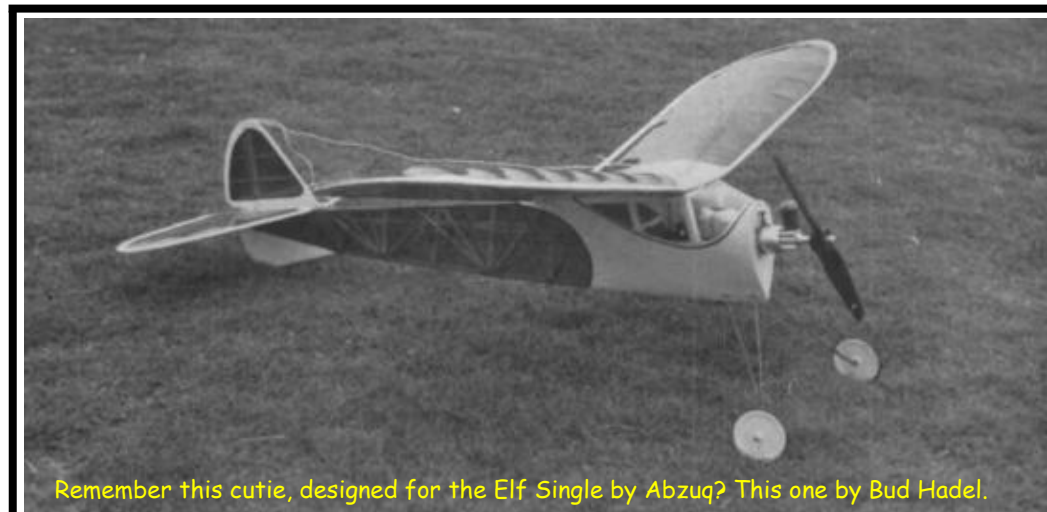
Texaco engines run for hours in the pits on no fuel, but as soon as the pilot says, "GO!", they splutter and stop.

The old antique engines are great, in the pits they start first flick and run on song, but as soon as the CD says "GO!", they splutter and stop.

Now GO is only a little word but big trouble it has caused,

We could fix all our modelling woes if only we didn't say, "GO!".

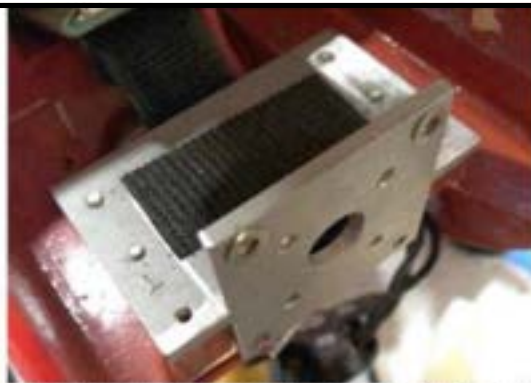
Condo 2011



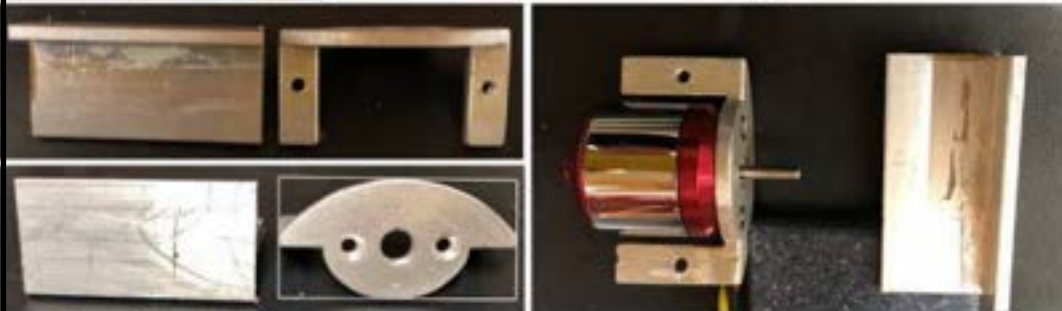
Remember this cutie, designed for the Elf Single by Abzuq? This one by Bud Hadel.



T-Bar Motor Mount

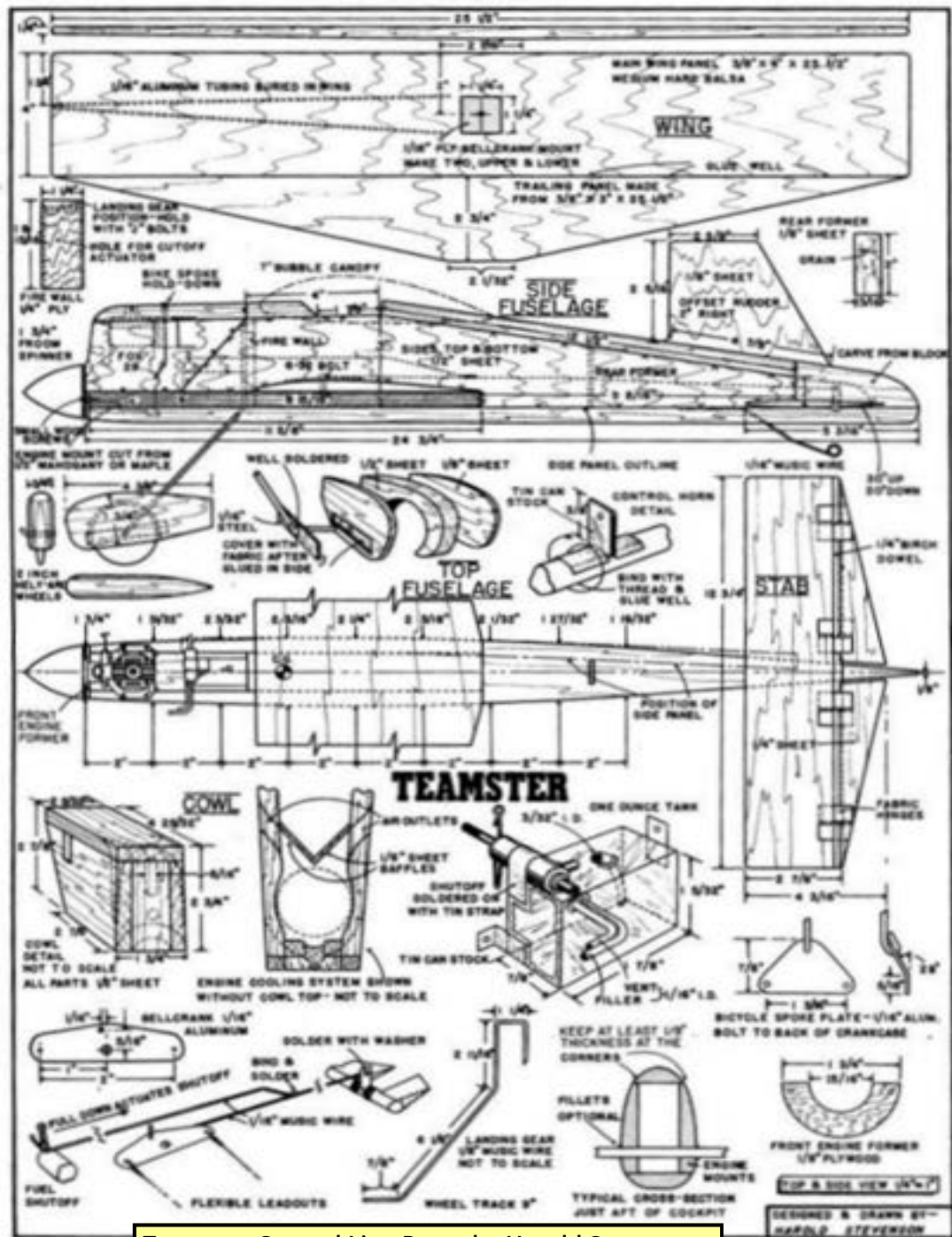


T-Bar mounts are great for converting the models with built-in beam mount, to be used with out-runner motors. First starts with some aluminum T-Bar, minimum size would be 1" X 1" X 1/8", 1.5" X 1.5" X 1/8" is better for the larger motors.



Depending on the motor is to be mounted in front of or behind the T-Bar, how much material needed to be removed from the T-Bar. You don't need to have access to heavy machinery, all of the work can be done by a saw and a file. I started with a CAD drawing on the computer before cutting, then you can get the dimensions correctly. The motor mounting holes are important to get it correct. The rest are just by eyeballing what is good. This is modeling, give it a try.

From the March 2021 SAM Chapter 21 Clipper Newsletter - Brian Chan editor



Teamster Control Line Racer by Harold Stevenson

The Geezer

Official Journal of the WA Model Aerc. Club (Inc) and SAM ZTC Western Australia



| | | |
|--|--|-----------------|
| President: Hans Van Leeuwen Mobile: 0419 921 693 Email: hans.vanleeuwen@bigpond.com | WAMAC / SAM 270 COMMITTEE | Vice President: |
| Secretary: Graeme Cooke Mobile: 0447 508 883 Email: graemecooke@bigpond.com | Treasurer: Ian Dixon Mobile: 0408 892 034 Email: ian@perthartglass.com.au | |
| Contest Director: Rod McDonald 0447 244 549 rodjmed@bigpond.com | | |



Burford event participants LtoR: 3rd Phil Letchford/Dixielander, 2nd Greg McLure/Dolphin and 1st Rod McDonald/Stomper.

From Rod McDonald rodjmed@bigpond.com
 Subject: Re: Competitions last Sunday October 3rd, 2021.

Hi Everybody,

Last Sunday we held our first competition at Toodyay, this time for Tomboy and Burford Duration. As has become usual in recent months numbers were well down and there were only four starters in Tomboy and three in Burford, nevertheless we had a good day's flying alongside the Toodyay guys who we have to thank for allowing us to share their excellent field.

Tomboys, both IC and electric, handled the fairly breezy conditions surprisingly well and equally surprising everybody managed to make it to the landing area.

Results were:

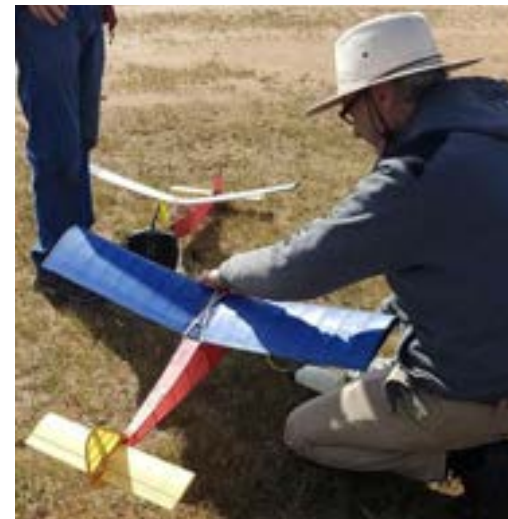
| | |
|------------------------|-------------------------|
| IC Tomboy: | Electric Tomboy: |
| 1st Phil Letchford 392 | 1st Graeme Cook 689 |
| 2nd Greg McLure 266 | 2nd Rod McDonald 660 |
| 3rd Rod McDonald 167 | |

The Burford event demonstrated that despite the generous motor runs allowed, maxes are not a certainty. Phil bravely had the first flight with his new Dixielander in the competition and it performed faultlessly until he lost it in the Sun at considerable height. He was very lucky that somebody caught sight of it as he was trying to spiral it down. He still maxed. Phil decided to withdraw after the excitement leaving the model with a perfect record.

Burford Results:

| | | | | | |
|--------------------------------|-----|-----|-----|-------|-----|
| 1st Rod McDonald Stomper | 300 | 300 | 178 | Total | 778 |
| 2nd Greg McLure Dolphin | 226 | 250 | 300 | Total | 776 |
| 3rd Phil Letchford Dixielander | 300 | 300 | - | Total | 600 |

All the best
 Rod.



Above: Graeme Cook's electric Tomboy.
 Left: Rod McDonald with his Tomboy.

From Hans Van Leeuwen,

As you're aware little's happened on the WA scene since the last TAT primarily due to the weather Gods not being kind to us.

I've enclosed some pics of our Toodyay field and some that relate to the Tomboy and Burford events with some general shots as well.

Cheers,
 Hans.







WAMAC CONTEST CALENDAR 2022

| | Free Flight Events | Oldtimer Events | | |
|-------------|-------------------------------|---------------------|------------|----------|
| 28 February | | | | |
| 6 March | Labour Day Long Weekend | | | |
| 13 March | | | | |
| 20 March | | Standard Duration | State/Club | Beverley |
| 27 March | Combined Open FF | | Club | Beverley |
| 3 April | | | | |
| 10 April | | 1/2A Electric / 2cc | Club | Beverley |
| 17 April | Easter | | | |
| 24 April | 1/2A Power / E36 | | Club | Beverley |
| 1 May | | Texaco | State/Club | Beverley |
| 8 May | Mothers' Day | | | |
| 15 May | P30 / Coupe | | State/Club | Oakford |
| 22 May | | Duration | State/Club | Beverley |
| 29 May | Slop / Nostalgia | | State/Club | Beverley |
| 5 June | WA Day Long Weekend | | | |
| 12 June | | '38 Antique | State/Club | Beverley |
| 19 June | | | | |
| 26 June | Open Power | | State/Club | Beverley |
| 3 July | | Nostalgia | State/Club | Beverley |
| 10 July | | | | |
| 17 July | Open Rubber | | State | Beverley |
| 24 July | | 1/2A Texaco | State/Club | Beverley |
| 31 July | | | | |
| 7 August | Combined FAI | | State | Beverley |
| 14 August | | Burford | State/Club | Beverley |
| 21 August | | | | |
| 28 August | F1Q/Open Electric | | Club | Beverley |
| 4 Sept | Fathers' Day | | | |
| 11 Sept | | Oldtimer Glider | Club | Beverley |
| 18 Sept | | | | |
| 25 Sept | Queen's Birthday Long Weekend | | | |
| 2 October | | Tomboy IC/Electric | Club | Beverley |
| 9 October | | | | |
| 16 October | | | | |
| 23 October | | | | |
| 30 October | | | | |
| 6 November | | | | |

Down Memory Lane..... The Geezer Issue 5: March-April, 2011

Interesting Helicopter

By Rob Rowson

Back in 1958, when I was still at High School, I visited a garage on the Nepean Highway, West Rosebud, Victoria, to inspect an unusual "home made" contra-rotating blade helicopter. It was designed and built by Murray Moser, a self described "inventive crank" who also was a fully qualified automotive engineer. He started from scratch in about 1956 and had to build some of his own machinery to make some parts. He had done much research and had been given a lot of help by the Department of Civil Aviation - my father was an air worthiness engineer with DCA at the time. DCA had agreed to "tether test" the helicopter when it was ready."In a tether test the helicopter is tethered to the ground by a cable so that if anything goes wrong it cannot escape the test area"....

Originally Murray Moser had hoped to power the helicopter with a DH Gipsy Major 10 Tiger Moth engine (120 HP) but discovered late into construction that he would need more power - possibly an Armstrong Sidley Cheetah 7 cylinder radial engine or similar.



Close up of the contra-rotating prop head and a port rear view of the helicopter.



He tether tested the helicopter blades for lifting power by attaching them to a side valve FORD V8 chassis.



Murray had hoped, if the helicopter was successful, to be able to convert the cabin into an ambulance bay or fit a hopper for crop dusting.

Sadly, Murray Moser died before the helicopter was completed and its ultimate fate is unknown to the writer. If anyone does know what happened to the helicopter, please drop a line to The Geezer office. It's all part of Australia's amazing aviation history.

Rob Rowson.



Rear view showing the contra-rotating prop head and warren-girder tail boom (no tail rotor).



Seen at Canowindra in 2010. Not exactly sure what this one is. Anyone out there know?



ENGINE THRUST TEST STAND

by Hans Van Leeuwen

Introduction: For some time I've wondered about comparison engine and propeller combinations, particularly for Old Timer aircraft.

I've figured that, if I had some comparative data, I could more accurately determine the power source and propeller combination required to achieve a particular objective.

For instance, how much thrust is required to take a given model from the ground at some reasonable speed so that it is controllable in case of side wind interference. It should then be possible to configure an engine/propeller combination to achieve a specific purpose, be that economy for Texaco, engine run time for specific events such as '38 Antique and whatever other instances are needed.

I'm fully aware that technically specific output testing is a complex subject and have spent a fair amount of time full size engine testing with a variety of dynamometers and other test equipment.

Thrust testing is the most logical choice for me as an indication of the needed effort to make an aircraft fly in a particular manner. I'm also fully aware of the inaccuracies of such testing because propellers unload in flight and thus the static findings are not necessarily those that will be experienced in actual flight. However, I base my choice of medium on the ability to reasonably compare known quantities and thus extrapolate whether the choice I've made is likely to be better than if I had no basis for such a choice.

To this end, I've constructed a robust device that measures thrust or forward pull as a comparative quantity.

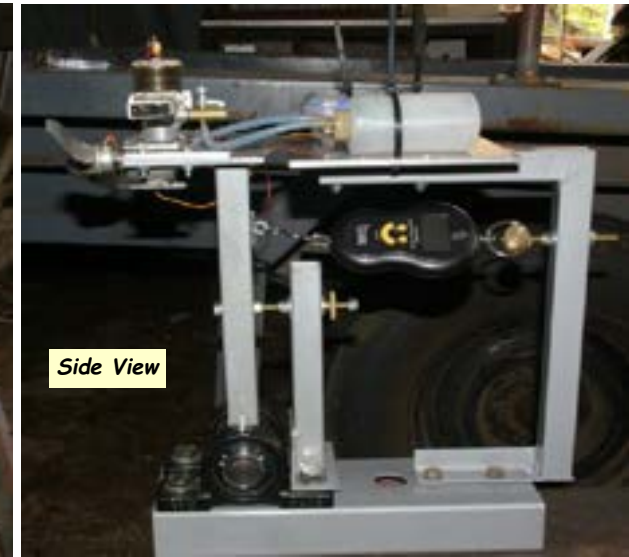
Some of the important considerations were:

-)Lack of vibration
-)Free moving pivot that will allow even relatively small engines to be tested.
-)Must be able to operate with diesel, glow plug and spark ignition engines.
-)A platform for the engine to form part of the pivot, another stationary platform to accommodate the fuel tank, ignition system or any other accessory that may be required.
-)If a servo is required to be used for the control of a throttle, that servo will need to be incorporated in the engine platform and the control unit such as the receiver and its battery pack on the stationary platform.

The device shown is the result of my endeavours and was tested this morning and found to be workable and with further data acquisition should be very useful.



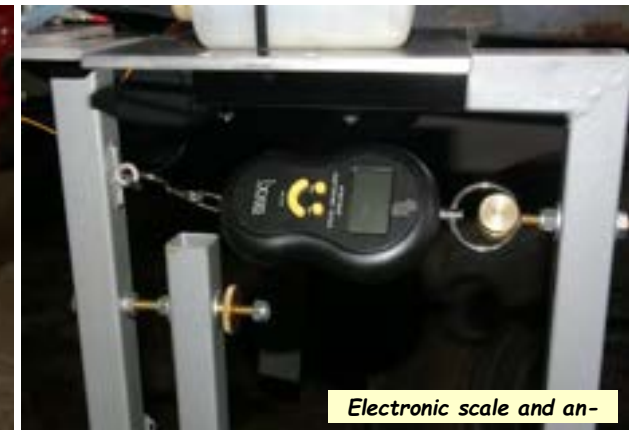
General Lay-



Side View



Top View



Electronic scale and an-



Pivot lock that allows starting and adjustment before thrust measurement



Showing fixed and movable sections.



New location of scales.

General:

The fixture was built over a period of around three weeks using some specially bought items such as the Plummer blocks, and the other stuff that was around the workshop.

It was commissioned on 6/10/2016 using my Ohlsson & Rice Small Port 60 spark ignition engine.

There was no vibration and all worked perfectly.

I look forward to producing and then being able to use the data acquired to improve my and other's model performance.

Modifications:

There were some issues with the original location of the scales, the horizontal aspect caused the scales to move under vibration and mess with the calibration.

I thought about various ways to improve that and investigated other forms of load cells and strain gauges but most of that stuff is too expensive for my purpose.

I then devised a pulley system that would allow me to hang the scales vertical and that has improved the accuracy of the system significantly. The set-up is somewhat Heath Robinson but does the job and that's all that I require.

It's quite interesting to note that the results I've so far obtained are relatively close to propeller manufacturer's specifications. I've used the APC specs and compared with my static thrust findings, they are quite close. That is RPM v/s thrust.

It needs to be appreciated that I'm not overly concerned about absolute measurements, rather comparative measurements as they apply to propeller speed data on this device and whether things are better or worse.

You'll also notice that the shine had gone of the thing because it's done a fair amount of work since it was commissioned and I've only taken these last photographs recently.

I use this device as a normal engine running bench as well as for thrust testing so it gets a fair amount of use.

Hans van Leeuwen

VH 6305

SAM 27014

21 December, 2021.



DESTRUCTIVE LIVESTOCK ON THE FIELD

From SAM 270's NL - THE GEEZER - November 2010

Destructive livestock on the field.. you are all aware, our paddock was at one time a stock feeding lot. While the farmer has moved the livestock on to greater - and presumably tastier - things, 1COW has been seen periodically in the pits on a Sunday morning.

Normally, 1COW does not pose much of a problem - it sits docilely near a patch of carpet and waits patiently for everyone to stop flying before wandering away.

However a couple of week's back 1COW did pose a problem when it went mad and sat on Rob Rowson's flight box - crushing it beneath its immense body. Eventually the errant beast was driven off and the pieces of Rob's antique box were gathered and stowed but the seemingly out of character behaviour of this 1COW puzzled everyone.

It was resolved all observers not to take the presence of 1COW lightly in future and to keep all aircraft, flight equipment and other paraphernalia away from its substantial backside.

For those of you not familiar with this 1COW, I have attached a picture. Remember: If you see this beast sitting in the pits, DO NOT LEAVE ANYTHING WITHIN ITS REACH!!



1COW may not be as dangerous as a whole herd but it can turn nasty in an instant! Hide your flight box! You have been warned!



BASICS OF SCALING

By Bob Angel

From USA SAM Speaks #127
Via Hans Van Leeuwen



One difference between SAM Free Flight and RC rules is that the RC rules is that the RC rules allow scaling up or down of model designs. This was mostly settled several years ago by Democratic vote. I say mostly

because a few purists still don't agree with the majority view. This disagreement shows up from time to time in special event rules which specifically disallow scaling: i.e. O&R Sideport, Ohlsson 23, Brown Junior, and many so-called pure events frequently proposed or flown at local levels.

The Pure Antique event was started by a member who felt scaling was politically incorrect. He first tried to eliminate scaling in Antique, but the vote failed. He persisted, and later got the Pure Antique event voted in. Maybe we should have taken his first offer, because now we're stuck with two Antique classes in our ever growing event inventory.

There are a couple of good arguments for scaling. One is that it allows some models to be built and flown in a competition, which would otherwise never be seen.

Another is that it was very standard practice even in the good old days to take a published design and scale

it to fit whatever engine one was lucky enough to own. Most well known designs were flown in several sizes other than that originally published.

Whether or not you approve of scaling, it's probably here to stay, so let's review how to do it properly. Let's assume you have a nice running Johnson .29 glow engine and because you

built a Dennyplane years ago, you'd like to build another and fly in Class B LER competition. The SAM rule book says you must have 225 square inches of wing area for each .10 cubic inch of engine displacement for a glow engine. Most .29 engines are actually .299 in size, or for practical purposes a .30. So you'll need a minimum wing area of 225x.30, or 675 square inches to compete with your Johnson engine.

But when you look up the Dennyplane in your SAM Approved Designs listings, you find its wing area is only 558 square inches. So you'll need to scale up the 558 squares to at least 675 to fly it in competition. There's a neat little formula that will give you a scale factor. You can then use this scale factor as a multiplier for each of



Bob Angus, of Tuscon, AZ with his yellow silk O&R powered 1938 Old Standby at Muncie in 1994. Bob won the Brown Jr Texaco event at the 1995 Colorado Springs Champs with a Lanzo RC-1.



Eut Tileston's metallic blue V-Tail Swallow gets a heave on its last flight before winning Worst Crash award at 95 Champs.

the original airplane's dimensions to arrive at the new dimensions. Scale Factor = Square root of area desired/Square root of original area.

So for the example above, we plug in our scientific calculator whose batteries are dead from lack of use, and find that the square root of 675 is 25.98, and the square root of 558 is 23.62. Dividing 25.98 by 23.62 gives us a scale factor of 1.0999, which may be rounded to 1.1 or a 10% enlargement.

Now let's apply this scale factor to see what our new wing span will be. The Dennyplane has a 66" wingspan, and 66 inches multiplied by our scale factor gives us a new wingspan of 72.6". You must use the factor on every dimension of the new ship.

I don't have a Dennyplane plan, but let's assume it's root chord is 9". Multiplying by the scale factor gives us a new chord of 9.9". If the plans show a dihedral dimensions, you must also multiply that by the scale factor to get your new dihedral dimension. Wheels too, even in 1/2A Texaco.

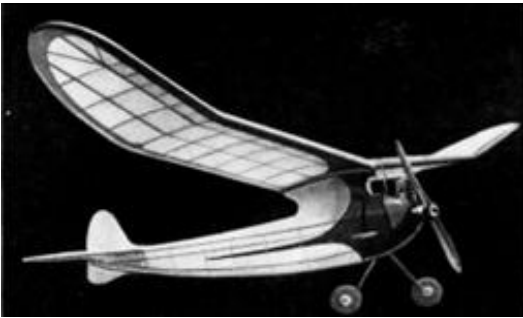
If you decide 72.6" is not the span you want, and you'd rather have a nice even number for wingspan, such as 74", you can adjust the scale factor for that dimension. It's even simpler to get a scale factor if you have a known 66" wing span and want a 74" span.

No square roots involved. Just divide the desired span by the original span, and in this case you'd get a scale factor of 1.12. But keep in mind that the new scale factor applies to every linear dimension, and by squaring the scale factor, you can compute areas. Your new wing area would be 700 square inches instead of 675.

You might wonder how the scale factor works when the original plan is to be scaled smaller instead of bigger. Everything, including the formula, works just the same, but the scale simply ends up as a number smaller than one, say .928. You can still use it to multiply each dimension of the original plan to get the new smaller dimensions. In a future instalment, I'll describe my favourite method of producing scaled working drawings using the scale factor, no computers, and little drawing equipment.

Now let's acknowledge some mail. Most of the bad gasoline problem is behind us with the rules change allowing alcohol based fuel. But some folks will still be using gasoline for Texaco, or because of preference or having no alcohol resistant fuel tanks. R.C. Burnett of Soudlersville MD wrote to say he can still get "1935 white gas" through a Mennonite group store for \$1.85 a gallon. These folks don't use electricity, and have been able to hang on to real white gas. R.C. reports the fuel works fine for him, and if you have such a religious settlement in your area, you might be able to find white gas there.

Thanks also to Bill Mitch, W.E. Conrad, Warren Behmer, Ross Wert, Eldon Breazier, Kip Merker, and others who have written, some sending inputs. We'll try to fit your material in where we can, but sometimes it takes a while, so please be patient.



The Winged Yankee ready to fly; with parasol wing for steep climb

THE WINGED YANKEE

A high performance Class A gas model that is easy to build and operate

by **SAL TAIBI**

Designed and built around the Bantam, this little plane has turned in many fine flights and has both beauty and flyability. Because of its small size it can be flown in limited areas now available in and around the large cities; also it can be transported on a bike, train, bus or other means of transportation.

The structure is designed to be light but extremely strong, yet to use a minimum of balsa and other materials, since the materials are getting harder to obtain as time goes on.

Well let's get busy; start with the fuselage. The usual tools and some hard 1/8" sq. balsa are needed. Make a full size layout of the fuselage sides and top. Lay out the fuselage sides one on top the other and fill in the cross-braces; be sure to use hard balsa so there will be no sag in the construction.

When dry assemble the sides putting in only the top braces, then pull the bottom together and cement the shorter bottom pieces in place, then cement the bottom longerons together in the rear as shown in the perspective view. Note that the front uprights are 1/8' x 1/2". Now add the front bulkheads of 1/8" sheet to the front of the fuselage. The front bulkheads and all other fuselage parts are full size on the plans.

Now add the wing mount, wing braces and wing saddle in place. Cement two pieces of 3/32" sheet balsa cross-grained together to form the wing saddle. Cement the top

stringer in place and add the bulkheads in rear of wing mount, as shown. At station No. 5 a small piece of 1/8" sheet balsa is fitted in to take the tail end of the ignition rack.

Now add the 1/8" sq. medium soft stringers in place. Using the front bulkhead as a pattern cut out a reinforcing bulkhead of 1/16" plywood. Cut out the inside as shown and cement it to the front former. Using the same outline cut out a firewall of 1/8" plywood. Drill holes in both the plywood bulkheads to take the dowels used to key the engine unit to the fuselage. Cement the blocks and engine bearers in place on the firewall; when dry carve and shape the blocks to size. It may be necessary to make minor changes for other makes of engines, but these changes are slight, not more than a 1/16" wider or narrower according to the engine.

Assemble the engine and ignition units to the ignition track. Tie in place with rubber bands. Wire as shown in the diagram on the engine instructions. Cement the landing gear in place and attach the wheels by soldering washer on each side.

Cut out all the wing ribs, tips and cut the spars to length. Lay out a full size plan of the wing and assemble it on a flat surface. Make a right and left wing panel. When dry carve and sand leading and trailing edges to

the airfoil contour. Carve the tips to a neat streamline shape, rounded on the leading edge and tapering back to a thin edge as it joins the trailing edge. Cement the wing panels together and cut the tips as shown, raising them to the dihedral angle shown on the drawings. When dry cement dihedral reinforcement in place and sand the entire structure smooth.

On a full size layout of the stabilizer, cut out the outlines and pin them to the plans. Then cut the spar to length and glue in place. Ribs are now added; spar and ribs are formed from 1/8"x 3/8" balsa.

When dry carve to a rough airfoil shape and sand to a neat thin airfoil. Be careful to avoid warping.

The rudder is built on the same system. Sand it to a smooth streamline shape. Shape the bottom rudder to fit the fuselage.

Now go over the model, checking for alignment. Sand all the framework to assure a smooth wrinkleless covering. Add scraps of balsa to the top of the wing saddle to fit the airfoil shape and sand until wing fits snugly. Cement piece of 1/16" wire at the front and rear of the wing saddle; this provides anchorage for the rubber bands that hold the wing on the fuselage. Cement hooks to the engine unit and fuselage. Cement a dowel in place in the fuselage at the stabilizer leading edge and a wire hook along the sub-rudder trailing edge. Now you are ready to cover the model.

The fuselage of the original model was covered with silk but gas model Silkspan will do if silk is not obtainable. Work very carefully when attaching the covering to the wing mount, pull out all the little wrinkles. To make the silk or Silkspan fit around curves use it slightly damp. Cover the wing in the conventional manner and spray with water to pull out any little wrinkles in the covering. When dry give the model about three coats of dope, sanding in between with 10-0 sandpaper. Give the model a last coat

of dope; do not sand the last coat of dope.

The original model was all white natural colour, trimmed with blue dope. Use masking tape to obtain smooth curves when colour doping. Give the engine mounts two or three extra coats of colour dope to protect them against the gas and oil.

Let your model dry a day or so and then prepare it for flight.

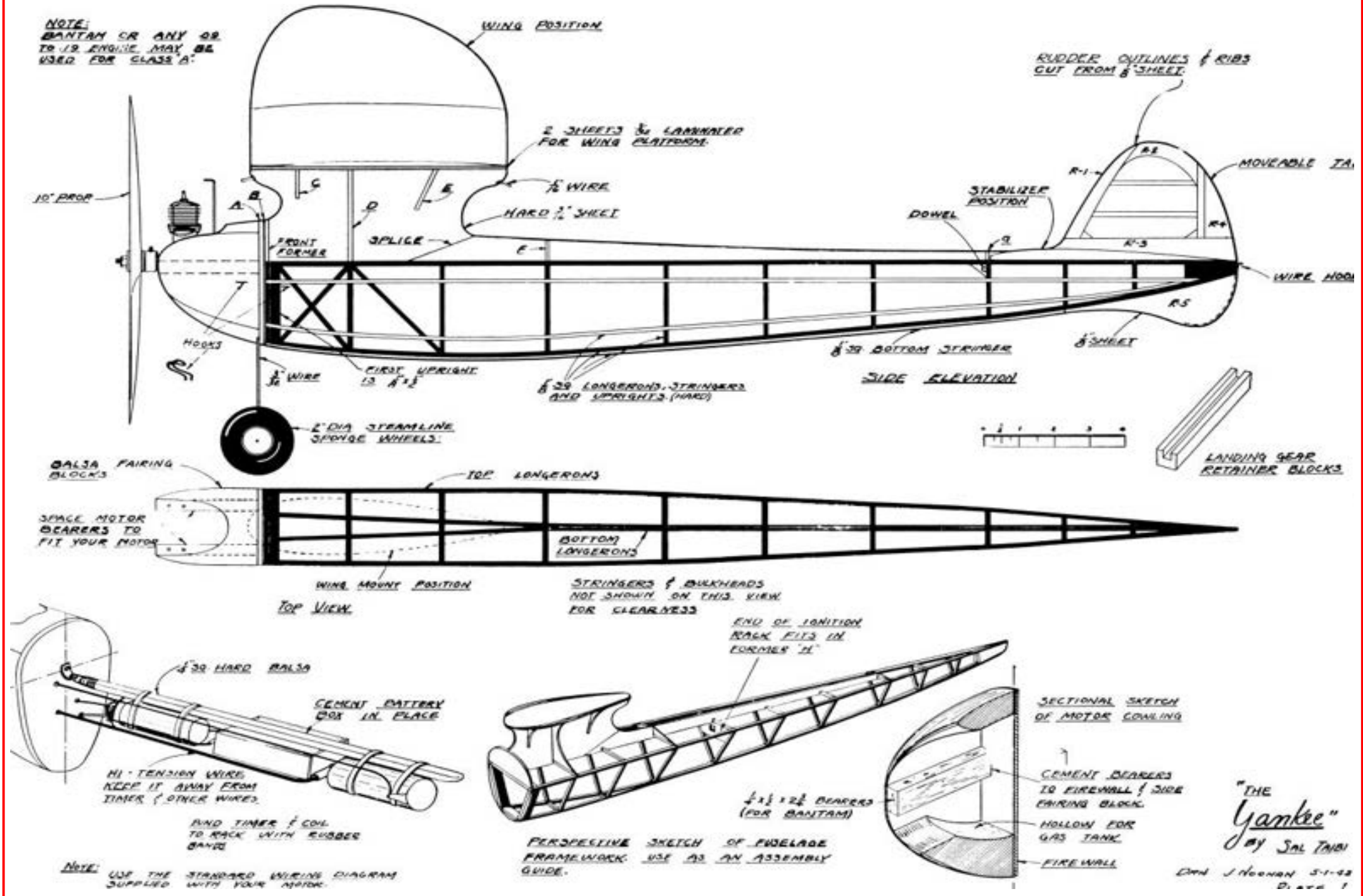
Install new penlite batteries. Attach a piece of fishline to the timer arm and check for spark. Set the engine a few degrees to the left and the rudder tab slightly to the right; now begin to test glide the model. If it stalls push the coil and batteries forward, if it dives reverse the procedure. After a smooth right glide is obtained the model is ready for test flying. Start the engine and set it at about half power, adjust the timer for about fifteen seconds and then release it. Watch it carefully, noting if the circle in the climb and glide are correct. If it looks satisfactory send it up for another flight; keep doing so, each flight adding a little more power until the model snaps up in a tight left spiral and rolls out into a smooth right glide. Many test flights will get you acquainted with your ship and will help you to get the most out of it in a contest. Good luck!

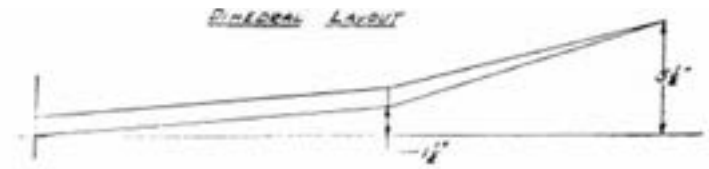
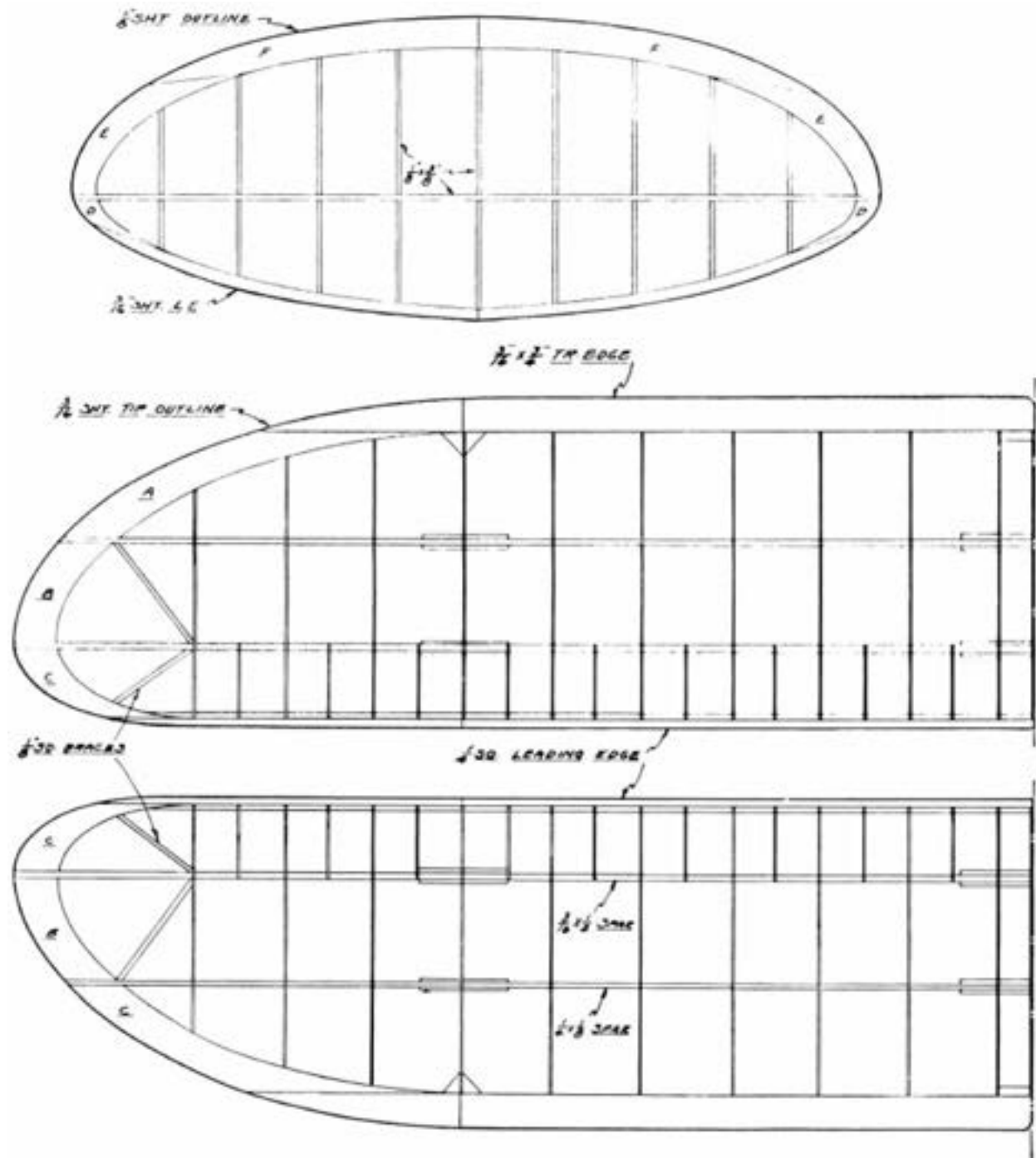
For further information write to Sal Taibi, Model Airplane News, 551 Fifth Avenue, New York, N. Y.

VICTORY!

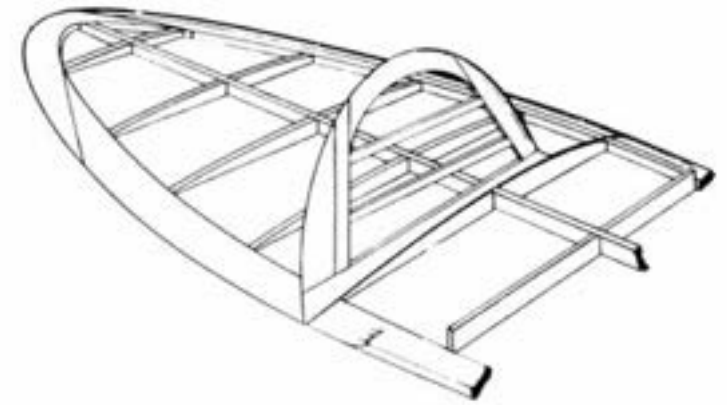
Mr. Taibi spins the prop in preparation for a flight.



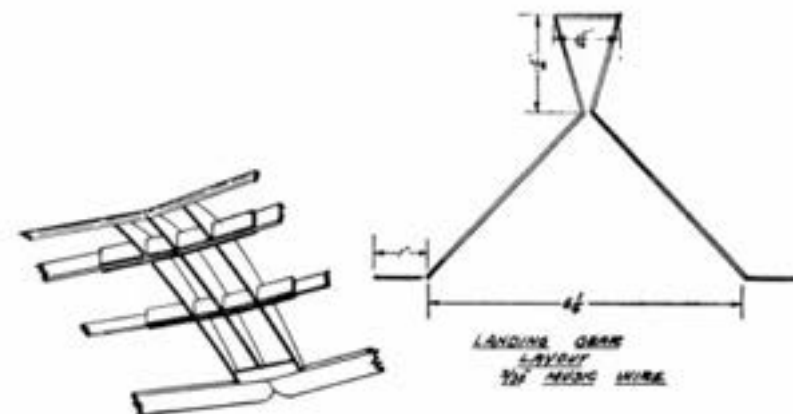




RUDDER / STAB BUILD ROUGH / SAND TO SHAPE



RUDDER / STAB UNIT IS REMOVABLE HOLD IN PLACE WITH RUBBER BANDS



"THE Yankee"
 BY SAL TAYLOR
 PAGE 2



BIG DAY OUT AT CALVERT
Report from Jim Hardy.



On the first Saturday in November, Old Timer Model fans held three competitions within the time and height constraints imposed on model flying at the Calvert Radio Aero Modeller Society - CRAMS field. It could be said that the events were CRAMMED into the time available.

As we only invited modellers from south east Qld due to COVID restrictions the field, doing battle was limited to half a dozen regular competitors and two new comers who turned up the day.

However, the competition in the first event - Open Duration was fierce with 5 of the 7 starters making the fly-off under 2017 rules.

Starters in Duration being, in alphabetical order Jim Hardy, Warren Hathaway, Gavin Hitchcock, Alan Suley, Brad Turner, Anthony Vicary and Mick Walsh. The air was not kind to us and the winning fly-off time was 9 mins 45 sec. Photograph 1 shows the first three placegetters Anthony, Mick and Brad with variety of aircraft.

Rather than stop for lunch, a scramble for cabin type aircraft powered by engines of 1cc capacity or less was held for half an hour amid a cloud of diesel fumes. Six starters, five at the finish, best time Brad Turner with 1451 secs, 24 secs ahead of Anthony Vicary and 84 seconds ahead of Mick Walsh.

After everyone caught their breath it was on to Texaco at 1.00pm. Six starters- Jim, Warren, Alan, Brad, Anthony and Mick with all Lanzo designs - 4 bombers, Racer and an Airborne. Once again the weather was not inclined to provide any assistance and with a couple of out landings there were only 2 for the fly-off. As it was obvious that if a ding dong fly-off was to take place, the height limit for the field became a real problem and consequently a gentleman's solution took place. Warren Hathaway won the toss and Mick Walsh came out second. Anthony Vicary took third place after missing the fly-off by 5 secs. The winners are shown with aircraft used in photograph 2.

After removing the support equipment from the flight line, all adjourned to the Clubhouse for tea, coffee, cakes and a word from our sponsors.

Wings Over the Downs Hobby Shop in Toowoomba supported both the Duration and Texaco events with gift cards for the first 3 placegetters and supplied the fuel for Texaco.

Ken Ryan President of the Australian Flying Museum supplied a framed photograph of an early monoplane to the winner of the scramble.

Phil Argent donated several packs of balsa from one of his little enterprises to competitors that he considered to be lucky or unlucky on the day.

Before departing, it was generally agreed that we have another competition early in the new year and to plan on conducting events over Friday and Saturday.

All in all a good day in great company.
 Jim Hardy 9881



Above L-R: Duration Winners 1st Anthony Vickary, 2nd Mick Walsh, 3rd Brad Turner
 Below L-R: Texaco Winners 2nd Mick Walsh, 1st Warren Hatherway, 3rd Anthony Vicary.









The Man Behind The Microhenrys Passes Away
 From Model Aviation Magazine <https://www.modelaviation.com/edhenry>



Tribute to Former Model Aviation Contributor Ed Henry's Microhenrys were featured in Model Aviation from 1988 to 1998 See some of Ed Henry's work and contributions to aeromodeling.

The creator of The Microhenrys comic strip, Ed Henry, passed away on Sunday, July 3, 2011, at the age of 92 in his hometown of Murphysboro, Illinois. Henry's work was enjoyed by hundreds of thousands in Model Aviation magazine for more than 10 years. His cartoon work received praise from the likes of Charles Schulz, the creator of Peanuts, Mort Walker, creator of Beetle Bailey, and Jim Davis, creator of Garfield.

In addition to creating more than 1,000 Microhenrys comic strips for Model Aviation, Henry received notoriety for many other great accomplishments and innovations including the Fly Seat. The Fly Seat is a full-size cockpit for flying Radio Control model aircraft. It consists of a full-size bucket seat, control stick, and foot pedals that control a radio control transmitter on a boom in front of the rotatable bucket seat assembly.

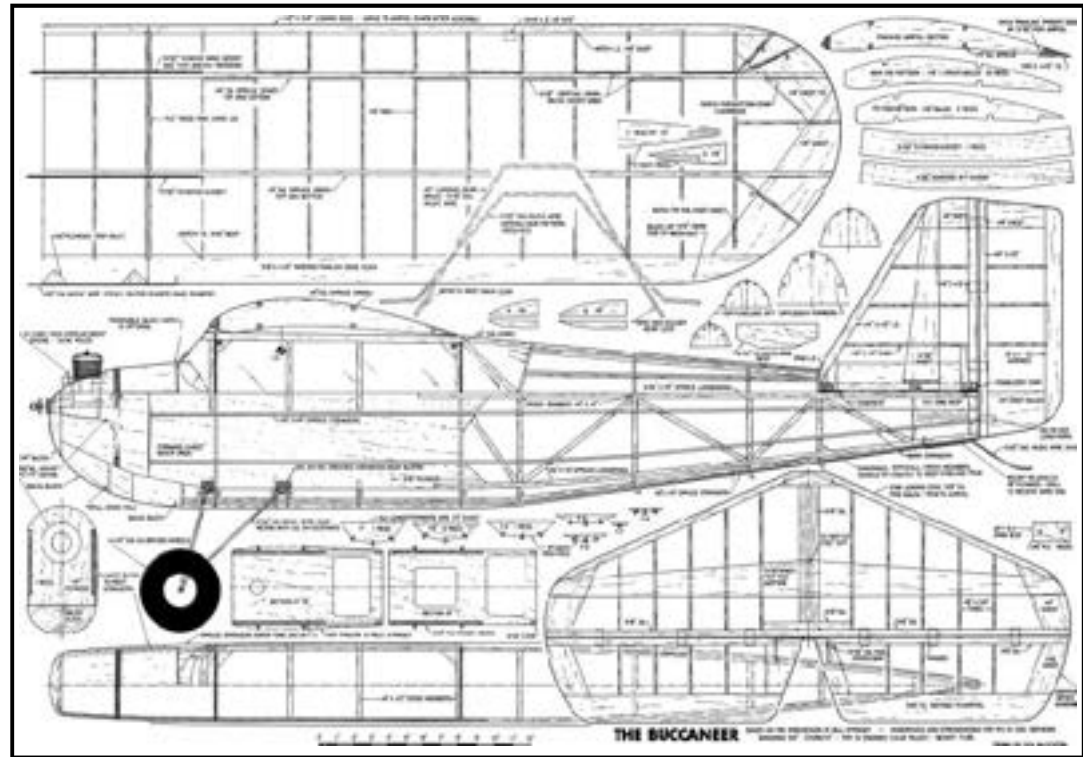
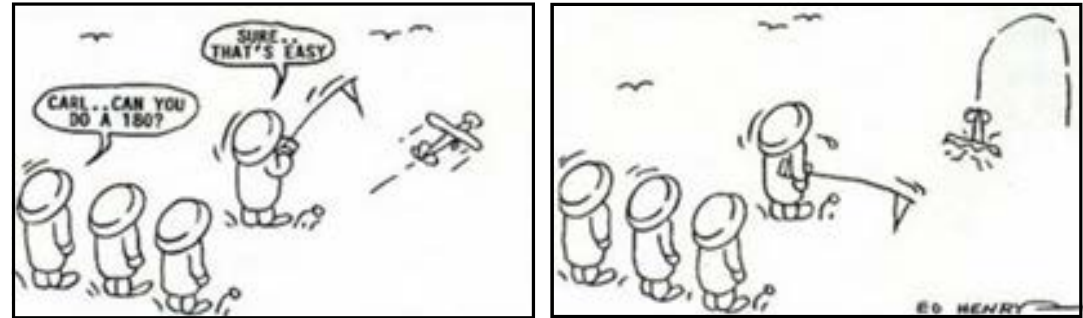
The famous newscaster Paul Harvey featured Ed Henry's Fly Seat to an audience of two million listeners. Photographs and multipage articles about the Fly Seat have appeared in roughly 60 publications around the world, resulting in approximately nine million in circulation. The Fly Seat has been donated to the AMA National Model Aviation Museum in Muncie, Indiana.

Other great inventions include the Add-A-Tickle charger, the first-ever Radio Control Dogfight (now called RC Combat) performed in the US, and various model aircraft with unique features such as snow skis. Many of these innovations have been featured in past issues of Model Aviation.

Ed Henry also won numerous awards, flew models around the world, founded and led an AMA club, and even authored the original AMA Safety Code.

Ed Henry's contributions to the hobby, sport, and educational pursuit of model aviation will always be greatly appreciated. You can read more about Ed Henry through the National Model Aviation Museum's online History Program at:

<https://library.modelaviation.com/>





More on Spark Ignition: The Editor finally gets ignited!

After a long delay the Editor has finally worked up the effort and put together the components for a Spark Ignition Test stand. The prime mover for this was the offer of a Forster 29 front rotor induction engine from John Ingram-Seal of Tauranga. This was a new in box engine complete with NGK spark plug and mounting bolts so I had a good chance of the engine being a runner without too many hassles.

Putting together the battery, coil and condenser combination did not prove too difficult but a little care was needed to make a neat job. My set up is on an open "breadboard" so that I had access to all the components. The battery is a 3 cell Ni-Cad stripped down from one of my redundant electric power packs. The toggle switch plus some alligator clips along with multi strand wire from Jaycar was carefully soldered together along with the Modelectric coil and a foil type condenser.

With ignition set up on the Test bench, an old saw-horse in my case the Forster was mounted on a wooden plate using the supplied mounting bolts. The engine mount holes are of quite small diameter and close to the edge of the cut out leaving little clearance, so some metal plates were fitted for some added security.

With everything tied and screwed down the tank was filled with a mix of 3 parts 91 octane unleaded and 1 part Castrol R that I had left from some much earlier fuel mixing days.

A check on the spark showed a healthy looking flash as the propeller was turned over so all was ready for action.

My hand starting efforts achieved little not even any "popping" so the electric starter was brought into use with instant results. WOW! What a noise these open exhaust engines make, just as well I live in the country. The Forster ran nicely on the 10 x 6 APC propeller fitted responding to both mixture needle and timing adjustment well. On the 10x 6 the revs ranged from 6500 to 8500 rpm—at deafening noise levels, definitely ear muff territory! The runs were good and consistent but were kept short on a rich mixture as the engine is still being run in. The supplied mounting bolts were not up to the job and were replaced but apart from that all very satisfactory.



In retrospect one can see why Glow-Plug and Diesel engines were welcomed, that certainly eliminated the wiring associated with Spark Ignition as well as eliminating a few problem areas like points and plugs. Still for your Editor a most satisfying outcome.

Still for your Editor a most satisfying outcome.



With the Forster up and running it was time to revisit the Ohlsson 23 front rotor, my original

spark ignition engine purchase. An initial check on the spark showed that it was non-existent, so investigation of the points set up was made. Using a multimeter on the resistance range across the points it appeared that the timing lever position could override the points leaving them fully open for the full revolution. The points only operated over a limited range of timing lever position, so this was set to have the points operational. On retesting with the full set up we had a good spark so it looked as though we may have some action. And so it proved to be—again my hand starting efforts bore no results so it was back to the electric starter. A bit of choke and we were away—the engine running on spark- woohoo! Some needle adjustment, and a little more advance the 23 settled down to a steady 8500 rpm on a Bolly 9.5 x 6 propeller. I thought that this was very good and compared well with my modern glow-plug OS 25 LA on the same propeller. A few more runs with the same result proved very satisfying.

So-now I have two bench tested and running spark ignition engines, so now it is time to think about putting them to work in the air.

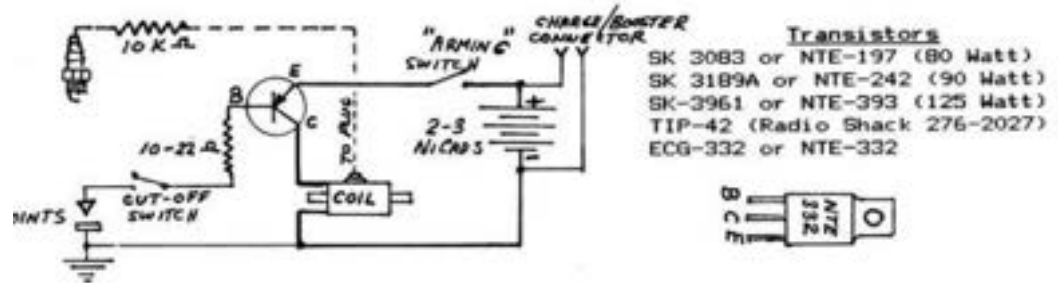
After such a long period of procrastination on my part it was, as I say, very satisfying to get these spark jobs running. They would not be my engine of choice, having been brought up on Diesel and Glo-plug engines, but one cannot deny they embody the true spirit of vintage, and as such maintain the interest of many involved in the vintage movement.

TRANSISTOR IGNITION

Following on from my experiments, I had a note from Ian Munro regarding Transistor assisted ignition circuits for the Spark engines. He rightly pointed out that our current NZ rules do not allow this option but is in the US SAM rules. As a result a Remit has been put forward to the next Vintage SIG AGM in January 2012 to allow for this option.

The benefit with using a transistor as a switch is that it unloads the points thus giving them a longer life.

A typical circuit is shown below.



Over to Ian.

* Transistors of course did not exist in the hey day of spark ignition but neither did reliable power supplies such as Nicads.

The high current in this circuit is switched through the transistor. The old style mechanical points still give the required spark timing. The Transistor (a TIP 42 is used by Ian) along with the resistors shown can be obtained from Jaycar. Best to get the circuit wire from Watts Up Hobbies as this is a nice soft silicon clad wire and needs to be of a suitable gauge (16 or 18 AWG). It is best to use a modular wiring system as shown using Deans type connectors. This set up helps to eliminate faults when they occur. The transistor circuit along with coils and plugs from Larry Davidson in the USA. His own coils are about US\$ 30 and can be purchased through PayPal. Good quality coils are often for sale on EBay along with other spark ignition gear.



Right: Transistor circuit—Bench run set-up. Would need a servo/switch or timer arrangement for flight. Needs resistor in the HT lead for RC operation. Phone battery (rewired), transistor, resistors and Deans connectors all came from Jaycar. The coil is around 50 years old." Ian Munro



Radio and Spark Ignition

So the next question is how to minimise Radio interference ?

Well, as Ian has indicated, the transistor circuit with a 10 kohm resistor (suppressor) in the High Tension (spark) lead seems the way to go . With the Editor's bench set up a few trials were done. The Ohlsson was used as the test engine. A group of different receivers on different frequencies were trialed with the following results. The receiver aerals were placed in close proximity (5 cm) of the ignition circuit.

Standard Coil circuit (no transistor). No suppressor fitted

| Transmitter | Receiver | Frequency | Result |
|-------------|----------------------------------|------------|-----------------------|
| Futaba 9C | Futaba R617FS | 2.4 Ghz | No interference noted |
| Futaba 9C | Hitec Electron 6 Dual Conversion | 40.770 Mhz | No interference noted |
| Futaba 4YF | R114F | 72.70 Mhz | Slight interference |
| Futaba 9C | Hitec HS 04M1 | 40.730 Mhz | Slight interference |

Standard Coil circuit (no transistor) 10K ohm suppressor fitted

| Transmitter | Receiver | Frequency | Result |
|-------------|---------------|------------|---|
| Futaba 4YF | R114F | 72.70 Mhz | Interference only when aerial draped over ignition components as above. |
| Futaba 9C | Hitec HS 04M1 | 40.730 Mhz | |

It seems rather hard to draw a conclusion from the above, but the best result for RC operation is likely to be with the full transistor set up. Though with 2.4 Ghz systems and full range dual conversion Receivers the standard coil circuit with suppressor would seem to suffice. Note that the 2 receivers that gave some indication of interference were basic 4 channel single conversion types.

The best advice seems to be to make sure your aerial and receiver are well away from the ignition system and use suppression at the very least. Another tip is to put the coil across the fuselage not in line, this lessens the magnetic field influence from the coil. Take a peek at the Report on the CPMAA event to see a successful spark application by Bryan Treloar.



Bryan Treloar with his Red Zephyr.



McCoy 49 up front in Bryan's Red Zephyr.

Below: Micro switch operated by engine for engine cut-off.

Below: Radio switch above ignition switch mounted on side of the model to allow safe priming of engine for starting.



BERNIE WINSTON on the GHQ ENGINE

In the June 1987 issue of "Model Builder", the regular engine reviewer, Stu Richmond, took the GHQ engine as his subject. His review is especially noteworthy for reprinting a portion of a letter from Burnie Winston himself. The relevant section appears below, preceded by Stu's lead-in to the letter, followed by Burnie's take on the GHQ.

Normally this is as much space as this column gets each month, but I struck gold when research yielded a letter to me directly from Bernie Winston who runs America's Hobby Center, Inc., 146 West 22nd Street in New York City. Bernie Winston's business owned the G.H.Q. factory! With his permission, I share parts of his great and interesting letter with you as follows:

"The original engine had been developed from an engine made at that time by a model engineer, Mr. Redfield. Louis Loutrel changed it so that it could be produced commercially.

The engines were made in a rented, storefront factory in the area of the Bronx known as 'Fort Apache'. We purchased the manufacturing equipment from Loutrel after he demonstrated his engine under all conditions. We paid him an all cash deal upon his promise to train our men to produce the engine. He worked for us for some time, but he was very unreliable; but, by that time, we had arranged for diecast aluminum parts.

The spark coils that he had made by hand were made for us by automatic machinery for far less than any on the market at that time. The diecast parts were far better than any on the market at that time. Most other engines were made with sand-cast parts.

We started production about 1935-36 and ended about 1944, since I had been notified of my induction into the Army. We had enough engines on hand to last quite a while.

The government had given only two engine manufacturers allotments of critical materials needed for production, including tungsten (for ignition points) and cast iron for other parts. These allotments were based on proof of sales volume that we were able to produce. As far as we know, only Herkimer (O.K.) had sufficient proof as we had.

While we produced on a steady basis, we turned to a lightweight, stamped piston (a revolution in engineering) ground to concentricity extremely accurately. We also developed a drop-forged crankshaft that was ground very accurately on the bearing surface.

While some of the tooling still exists in our basement, the dies for casting were destroyed after 15 years of non-use. One of the differences (humorous or otherwise) was that the G.H.Q. ran and was designed to run the opposite rotation of the engines of today.

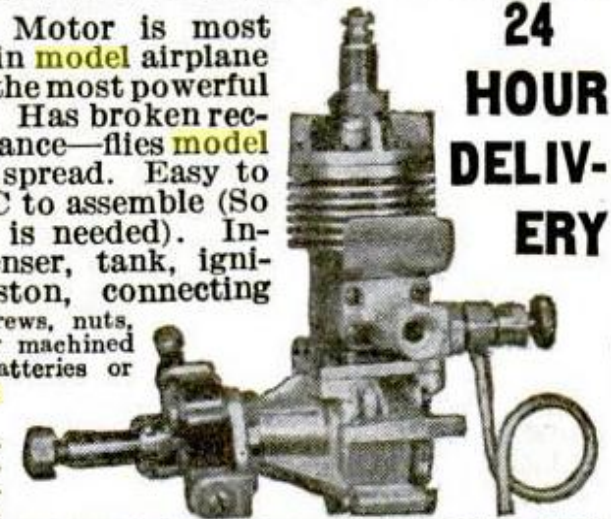
We did fall behind in production at one point when a good many of our employees (a group of motorcyclists who parked their machines in an entry way of the building) were discovered to be filling their empty tool boxes with our equipment. It took quite a while to retrain new employees (about 20) to handle the work. It is rather difficult to reconstruct the many incidences, problems, and financial intricacies that evolved so long ago.

We were the first to use a Hutto honing machine, a Sunnen honing machine, and others that we had to view in other manufacturing fields and adapt to model engine manufacturing. For example, we had a neighbour who was a trumpet manufacturer and used the Hutto honer with great success. We bought one and received from the neighbour our schooling in the most difficult problem of honing a cast-iron cylinder with the problems of variable metals, bypass holes and exhaust port already made while the entire honing operation was being bathed in a cooling flood of pouring oil during the process. In those days we ran a school on the top floor of our store every Saturday... we tested and taught engines and modellers who brought their own engines. We never failed to run any engine."

GAS MOTOR KITS FOR MODEL AIRPLANES—BOATS

The G.H.Q. "Loutrel" Motor is most spectacular achievement in model airplane history—actually, one of the most powerful motors ever constructed! Has broken records for amazing performance—flies model planes up to 10 ft. wing spread. Easy to start—and simple as ABC to assemble (So easy only a screwdriver is needed). Includes plug, coil, condenser, tank, ignition wire, cylinder, piston, connecting rods, timer, crankshaft, all screws, nuts, bolts, etc. Every part is fully machined and finished. No oil, gas, batteries or propeller included. Postpaid for

Ready-to-Run G.H.Q. "Loutrel" Motor complete with propeller included; entirely assembled on stand. Tested and run before shipment—Performance guaranteed—1-5 horsepower at 3000 to 7000 R.P.M.—No oil, gas or batteries included. Postpaid for only \$12.50. Send 3c for illustrated catalog.



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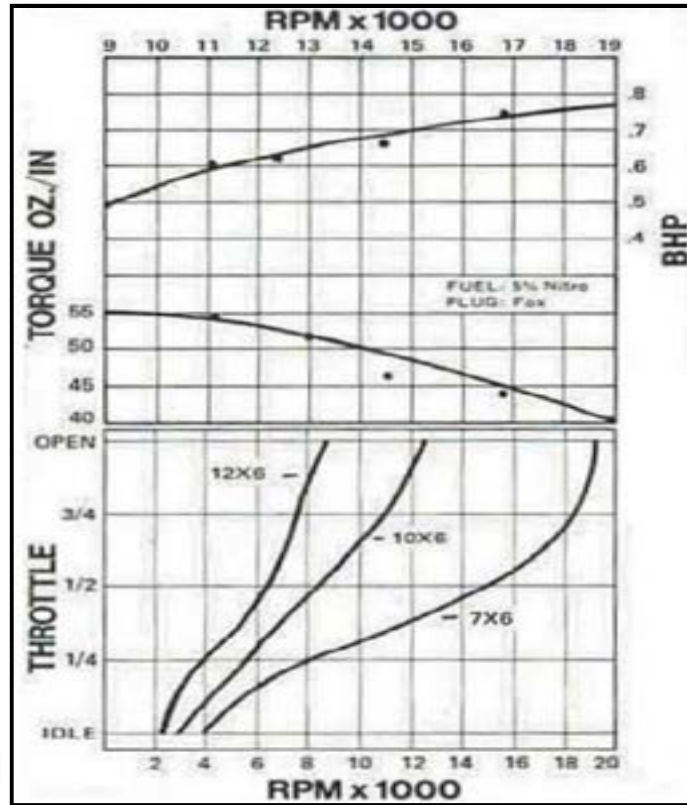


AAM TESTS

OS MAX 40H-RC
DON JEHLIK



AMERICAN AEROMODELLER MAGAZINE
MARCH, 1974.



For years, OS has produced engines with, in my opinion, nice external finishes. They have been the favourite of many fliers because of their excellent quality as well. Recently, OS engines have acquired a new image - power. Design changes incorporating the latest design elements in baffled piston engines have made them equal to their contemporary engines.

Inside, the 40 features ball bearings, a really strong bushed rod, two transfer holes through piston skirt, bushed wrist pin holes in piston, Dykes ring, and squish band head. Instead of a muffler, the engine came with an exhaust wiper coupled to the carburetor arm.

Break-in and tests were entirely normal.

The engine likes a pretty good exhaust prime. I usually grab the prop and turn it with plug hooked up until it kicks in my hand once. Then one or two flips to start.

Adjusting the needle valve from 4-cycle to 2-cycle settings isn't the same on different engines. The K&B 40 recently tested is an example. When I turned the needle valve in from 4-cycle to 2-cycle, I could then turn it in about one turn leaner. The engine just kept picking up rpm in the 2-cycle mode as the needle was turned in. The OS was different. Peak rpm is reached almost as the engine transitions from 4 to 2-cycle. Nothing wrong with the engine; it's just the way it operates.

O.S. MAX 40H - S40 - 40R/C



It pays to get familiar with each engine and carefully observe the differences between each. Two engines the same make often do not run or adjust the same. This is the result of the combination of variations of all the sizes and tolerances in engine.

The horsepower graph shows what is becoming a typical pattern for RC engines today: higher horsepower through higher rpm. This doesn't necessarily mean the engine must be operated at peak power. Any engine operates best in terms of life (how soon it wears out) and specific fuel consumption (less fuel required per hp output) when it is operated below peak power. I have recommended lower pitch/higher rpm operation of some engines recently. I don't intend that any engines, except for flat-out performance events, need to be run at the top of the hp curve. The graphs do show the trend towards higher rpm operation.

Throttle response of the test engine on the 10x6 prop is almost linear. The OS Max 40H RC is a fine engine.



**The First R/C Nats Event in USA
Was Held in 1937
Won By Chet Lanzo Using His "Stick" Design.
From Charlie Reich sam1781@bellsouth.net**

Chet's third R/C model design, and 1937 National's winning version, was his 108" wingspan "RC Gas Model" also now known as the Lanzo Stick RC. Originally there was a cabin type structure attached by rubber bands to the fuselage to support the wing. The cabin enclosed the radio gear mounted in the fuselage and was removable to allow access to the early tube-type radio equipment, as the receiver required constant tuning and adjustment just prior to a flight.

Chet Lanzo's original 1937 Nat's winning R/C (rudder only) "Stick" with Baby Cyclone .359 ignition engine. Wingspan was 108".



Lanzo's 1937 RC Nat's Winner

Chet became annoyed at the inconvenience of the detachable cabin inhibiting ready access to the radio tuning. The original cabin/stick design was modified just prior to the 1937 Nat's and featured wire cabane struts to support the wing above the stick fuselage. He replaced the cabin with wire cabane struts to allow easy access to the radio for fine-tuning just prior to launch. The radio was located in the fuselage under the wing, between the wing's cabane struts.

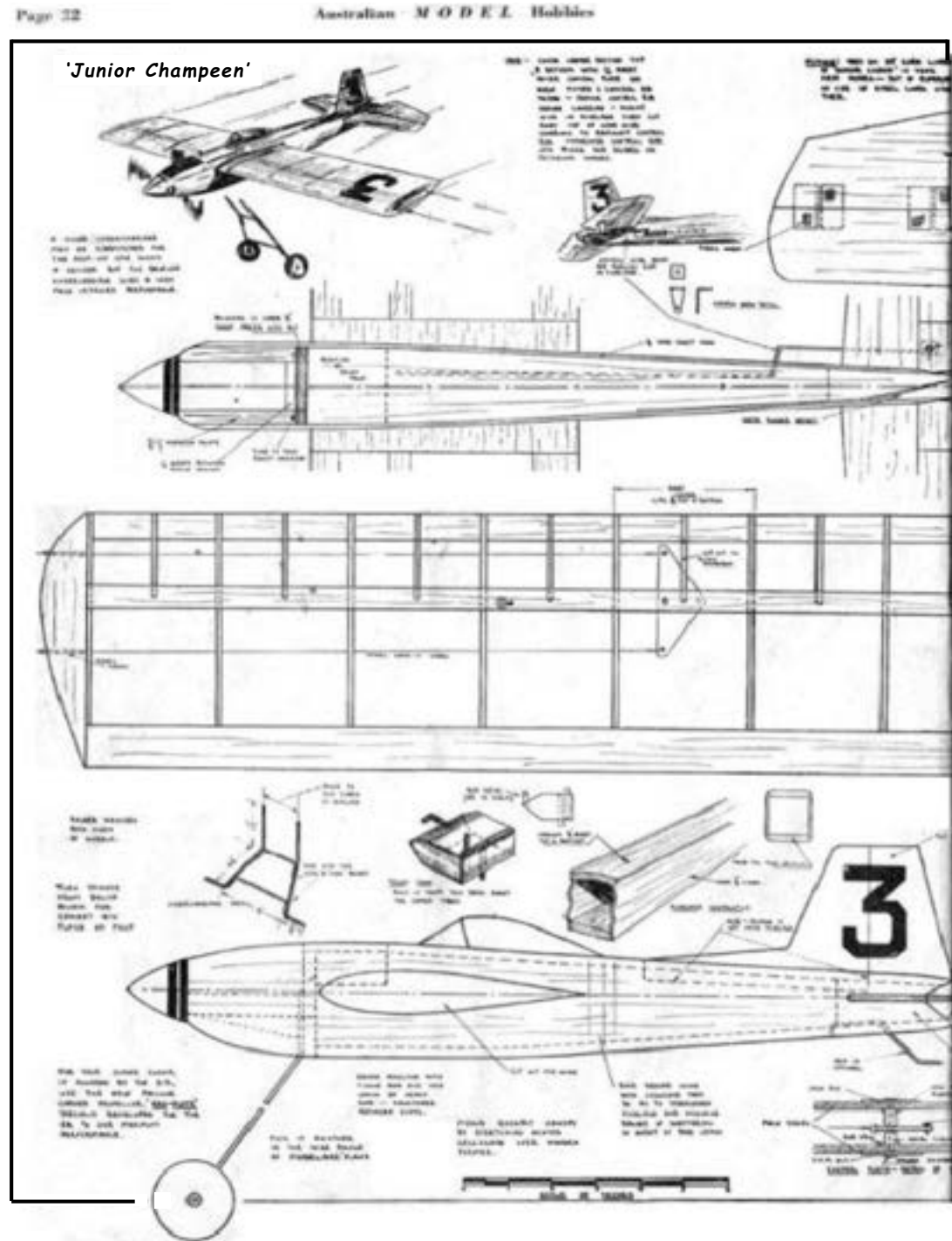
The Nat's winning model used wire cabane struts, not the cabin version that was pictured as the winning design in the magazine and newspaper articles at that time. A Baby Cyclone .35 ignition engine powered the model. The receiver, rudder actuator and batteries weighed 1-3/4 lb with an overall model flying weight of 6 lbs.



Son Andy and dad Larry Lafowski's R/C Cabin Stick Texaco model, powered with an OS 80 open rocker glow engine.



Tom Ryan's Texaco diesel powered Cabin Version of the R/C "Stick".





**From SAM SPEAKS #126 (1995)
OLD ENGINE ANALYSIS
By Charlie Bruce**

One of the best of the many model engines to hit the post WW II market was the Madewell 49 which came out in 1946. It was designed by Jack Keener and is a further development of his Comet and Vivell 35 engines.

Produced in Oakland, California, it became an instant success in the exploding control line market. My first Madewell 49 had a sheet iron timer (like the Comet 35) and we wore it slap out in a U/C trainer teaching all the juniors and club girl friends to fly. It's a powerful, lightweight engine but keep the RPM down or that heavy cast iron piston will shake the nose off your model.

DISASSEMBLY:

Timer: Most engines have a die cast timer frame retained by a short 3-48 clamp screw. Loosen the screw and the timer assembly will slide peacefully off the front.

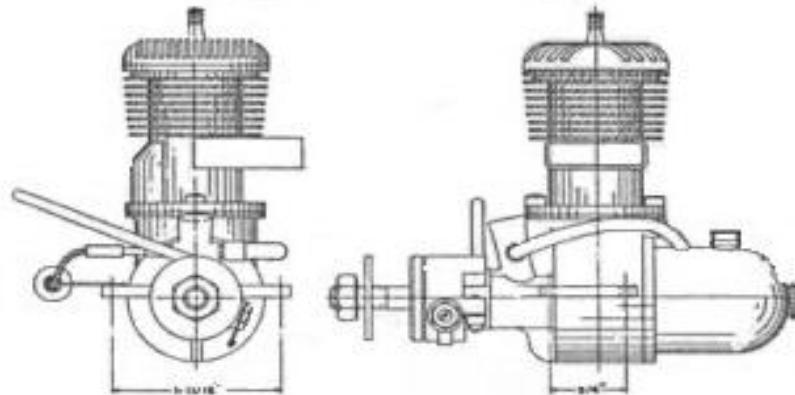
Fuel tank: A drawn steel fuel tank is held onto the back plate by a long 3-48 spindle and aluminium spindle nut. There are paper gaskets at either end.

Needle valve: The original needle valve body was pressed into the venturi. These usually come loose and twist or fall out, and are then replaced with a universal NVA. Loctite hadn't been invented in 1946.

Backplate: The back plate is threaded in place and has a thin paper or fibre gasket. Make a "wood wrench" to unscrew it. Drill a short 9/32" diameter hole in the centre end of a short piece of 1" diameter hard dowel. Then cut a shallow saw slot about 1/8" wide across the end of the dowel. Hold the dowel in a vice and turn the engine by hand. You may have to use heat and gloves to loosen a stuck engine. Note some engines have a bar stock back plate with holes for a wrench. This wrench is more difficult to make.

Take a piece of 1" diameter metal bar (aluminium, brass or steel) and drill a short 5/16" diameter hole in the end centre to clear the tank spindle boss. Install two 1/8" or 5/32" diameter pins on a diameter line, 0.850 " apart and equally spaced from the centre of the bar. The pins need to be firmly pressed or driven into the bar as they will engage the back plate holes and take all the torque to loosen and tighten the cover.

Cylinder Head: The head is retained by 4 short 6-32 screws. There is an asbestos type head gasket, usually stuck firmly in place. For most clean-ups the head can be left on.



Cylinder and Case: There are 2 short 6-32 screws holding the cylinder assembly to the case. There is a thin ring gasket between the flanges. With the cylinder removed, the piston pin will push out easily and the rod can be lifted off the crank pin at bottom dead centre. The crank will now slide out the back. There are no loose parts.

REASSEMBLY:

After clean-up and lubing of parts, reverse the order and put her back together. Here are some special points to watch.

Examine the crankshaft carefully for cracks at the

rotary valve port. A cracked shaft must be replaced or repaired. Many Madewell cranks are hard and brittle from too long in the cyanide bath. The method used to cut the port leaves sharp corners which encourage cracks due to a metal phenomenon called notch sensitivity. Prevention involves careful rounding of the sharp notch corners and annealing. The shaft may be heated to a dark blue colour and allowed to cool slowly. Unfortunately this may cause warping so be forewarned.

The con rod lower end is not symmetrical. The longer side of the bearing must face forward to clear the counterbalance.

Be sure the wide side of the piston faces the exhaust and that the baffle cut-out in the head also fits the piston. You may install the cylinder with exhaust to left or right but on the left side the stack cut will be slanted backwards. It will function OK but looks odd. As usual be sure the wrist pin pads are in place. The two cylinder screws sometimes loosen in service. Try lock washers or Loctite to keep them snug.

Timer Adjustment: Madewell instructions don't give a point gap but 0.006" to 0.010" works. The fixed point is adjustable by loosening the lock nut and turning the point in or out with a small screwdriver. Tighten the lock nut when the gap is set. Don't over tighten as it's easy to strip the threads out of the fibre bushing.

The V-2 Spark plug gap should be 0.015" to 0.020" and a 3-1 mixture of gasoline to 70 oil is recommended.

PARTS:

Some Vivell 35 parts (late con rod, prop drive and timer assembly) will interchange with the Madewell 49. These appear at MECA Collectos now and then.

For repro parts try (1995):

Dave Wilke, PO Box 188, Idyllwild, CA 92549

Woody Bartelt, 1301 W.Lafayette, Sturgis, MI49092

Karl Spielmaker (crankshafts) 4690 Burlingame, SW, Wyoming, MI 49509

New Research Shows Why Electric Cars Failed in the Early 1900s.

By ANDREW HEINZMAN

The first electric vehicle was developed in the late 1890s, and EVs were fairly popular up until the 1920s. So what happened? New research published in *Nature* by Lund University suggests that early electric infrastructure, or a lack thereof, prevented electric cars from winning over the 20th century.



When people talk about early electric cars, they tend to criticize the vehicles for their low speed, poor performance, and high price tag. But after studying a database of over 36,000 American-made cars, Josef Taalbi and Hana Nielsen of Lund University found that these criticisms aren't entirely accurate.

"According to our estimates, electric cars were cheaper to drive in the 1920s thanks to cheap electricity." They may have cost more to purchase than combustion engine vehicles, but they didn't need expensive gasoline and required less maintenance.

Not only that, but early EVs were so lightweight that some models could travel over 50 miles on a single charge (the best could go over 100 miles). Consumer-grade EVs may have been limited to speeds of between 12 and 20 MPH, significantly slower than their gas-guzzling equivalents, but companies like Baker Electric proved that more advanced EVs could reach 60 or 100 MPH.

But in the words of Josef Taalbi, "car manufacturers chose technology based on conditions that prevailed at the beginning of the 20th century." If you were a car manufacturer in an area without a proper power grid, for example, then there would be no point in building electric cars - your customers couldn't use them!

According to Hana Nielsen, "The electricity market for households was not profitable for private electricity producers," so electric infra-

structure wasn't widespread in the early 20th century. By the time that the U.S. government made a strong commitment to electric infrastructure as part of the New Deal, "The industry had already be-

come locked into a technology choice that was difficult to change." It chose gas cars.

Several other factors led to the failure of early EVs, including advertising practices. Electric cars were usually marketed toward women, while fast and stinky gas cars were branded for adventurous men. Early EVs also had trouble on unpaved roads, a factor that (when combined with the lack of electric infrastructure), limited their long-range use and contributed to their gendered image.

Still, models designed by Josef Taalbi and Hana Nielsen show that electric vehicles could have survived the 20th century if a New Deal happened 15 years earlier. Gas cars would still have the advantage of speed and range, but the two forms of vehicle may have co-existed. Such an outcome would have significantly reduced carbon emissions and pollution during the 20th century, and of course, it would have accelerated the development of new battery technologies.



Video: <https://youtu.be/OhnjMdzGusc>

COVERING WITH POLYSPAN

from
SAM 600 Newsletter #75
 September - October 2001

Extract from SMALLnet Posting #387 by Joe Wagner - Use of PolySpan.
 <SMALLnet-list@eskimo.com>

Chris, it seems like each kind of model covering material has its own unique quirks and techniques. A couple of other SMALLsters have also asked recently about Polyspan methods, so for their benefit, here's ONE technique that WORKS. (It may not be the only one, but it's the only one I know.) Apply three coats of plain nitrate (NOT low-shrink) dope to every wood surface that will touch the covering. Sand lightly after each coat dries, just enough to remove the fuzz.

Polyspan applies like tissue, except that moisture has n't the least effect on it. That means you must position each piece of Polyspan carefully, so as to minimize slackness and excessive material "within the perimeter". Polyspan heat shrinks - but to a rather limited degree. It's best to apply the covering with that in mind, even if it means covering a wingtip with an extra piece.

I place each piece of Polyspan where I want it, then brush a 50-50 mixture of nitrate dope and "retarder" around the perimeter ONLY. I burnish down the covering and do any minor positioning adjustments that seem needed.

After each section of Polyspan is attached, I trim the outline (usually with sharp scissors) to provide nicely-even "wrap-around" material. Now comes the trick! Polyspan fibres are quite springy, and it's just about impossible to wrap the material around, say, a trailing edge, and adhere it with dope. It won't stay. Instead, with a Q-tip, brush a thin coat of Sig's "Stix-It" onto the underside of the "wraparound material" AND a corresponding area on the "mating part". Let that dry.

Now with a hot "trim iron" (the flat foot works best for me) you skmoodge the Polyspan margin around the

outline. This may take a little practice, because three things take place at the same time here.

The foot of the iron acts as a rounding-over tool via PRESSURE (not TOO much!) - and as a contour-former via its tendency to stick to the Stix-It. (This allows a certain amount of "pull" action, to make the Polyspan conform as it is brought around a curved leading edge). And the HEAT softens the Polyspan, shrinking it too as the loose edge gets "turned under" and adhered. This allows the seams to be "ironed down" almost to the point of invisibility. ...OK, once the entire model is covered, careful and progressive use of a heat gun will remove almost every wrinkle.

Dealing with Warps.

Warps can also be eliminated with careful heat application - but it's far better to avoid those in the first place.

So far as I know, EVERY type of paper or fabric covering for aircraft needs one or two BRUSHED coats of nitrate dope. This seals the surface, adheres the covering to wing ribs and fuselage stringers, and the action of the brush bristles physically forces the dope deep into the fibres (or weave) to provide maximum adhesion. (Butyrate dope's adhesion is FAR less.)

After I applied the first coat of clear nitrate to my first Polyspan-covered model, I let it dry, then lightly sanded the (expected) surface fuzz. I think I used worn 400 wet-or-dry. All seemed well, and I brushed on a second coat of nitrate. When dry that produced FUZZ GALORE. Horrid. Loathsome!!

This reminded me of a couple of earlier "miracle model coverings": Dave Brown's "Skyloft" and Midwest's "Microlon". The fuzz from these awful materials was IMMORTAL.

I was in despair until my son David came by, and provided THE SOLUTION. That was some exceedingly smooth "abrasive pads", of the sort used by plastic scale modellers. (A set of these is available from Micro-Mark, under the name of Micro-Mesh Pads.)

I couldn't see HOW such smooth-feeling (1200 and 2400-grit) "abrasives" could tame the fuzz that doped Polyspan generated. Maybe the action is a

"burnishing" one -- but IT WORKED.

I went all over my fuzzy airplane lightly with one of these pads. That made everything nice & smooth and the next coats of dope went on without a trace of fuzz re-appearing. I haven't spray-painted a model since I moved to Alabama. I've gotten to like the "brushed finish look" - and in fact I don't even fill grain any more. I mean, my models are built from wood why be ashamed of that? And as long as the overall appearance is consistent, visible wood grain under the dope doesn't look objectionable to me, nor apparently to those who view my models. And I save weight, time, aggravation, and MONEY.

When I DID spray paint, I used pressure between 25 and 35 psig. I found that reduced pressure minimized overspray, and allowed me to apply "wetter" coats. (Too much air pressure seems to make dope dry "in the air" before it gets to the model).



TRIVIA
 The World's
 First Hybrid Electric Vehicle
 Was Produced By?

| | |
|---------|---------|
| Ford | Toyota |
| Ferrari | Porsche |



ANSWER - PORSCHE

It would be easy to assume that the first electric hybrid vehicle was the Toyota Prius, introduced to the automotive market in 1997.

It was everywhere in the news, the focus of much public debate and commentary, and practically the poster child for the hybrid vehicle movement.

While it might have been the face of the very late 20th century rise of the hybrid vehicle, it was also very late to the party.

The start of the 20th century saw an equally strong interest in hybrid vehicles that is unbeknownst to most people today. The first hybrid automobile was created by Ferdinand Porsche. The vehicle was a 4WD hybridization of an electric carriage outfitted with a gasoline engine. The model was called the *Lohner-Porsche Mixte Hybrid* due to its being manufactured by Porsche's then employer, the Lohner Coach Factory. Between Porsche's early design and the late 1920s, the world saw a flurry of hybrid vehicle production.



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THE SPIRIT OF SAM

When your Duration model flies into the sun,
And it can't be seen by anyone -
when it reappears and the wing is gone -
You say, "I'll just have to build another one".
That's the Spirit of SAM.

When your 1/4A model has flown away,
The Rx switched off, all else OK.
It's gone out of sight - all you can say,
"I didn't like that model anyway".
That's the Spirit of SAM.

When you've driven to the Contest 400K,
You find accommodation's an hour away,
Then it rains and pours all through the day.
You say, "Well, the scenery was nice along the way".
That's the Spirit of SAM.

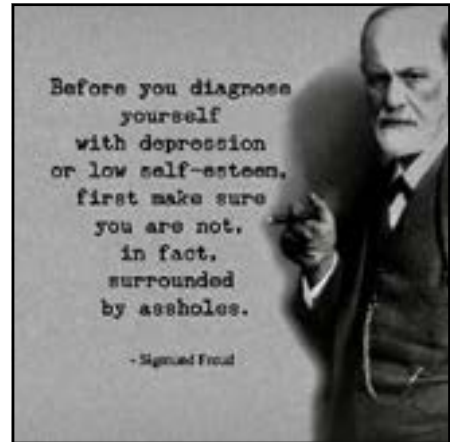
When your Trexlerrs are punctured by birds,
When your model has flown all over the skies,
'Cos your frequency's the same as some other guys,
And you laugh as you end up sadder but wise,
That's the Spirit of SAM.

When you keep coming back, year after year,
With never a trophy - you never come near,
But you meet once again all those mates you hold dear,
There's one thing for certain you'll always find clear -
And that's the Spirit of SAM.

John Abbott SAM 3077
September 1992



Asymmetrical Pusher by Henry Cole, Jr.
Air Trails - January 1947.





COX .049 QUICK MOUNT
From USA SAMSpeaks #115

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SAM SPEAKS #115

Jan. - Feb. 1994

When running multiple Cox .049's to find which exhibit the best Texaco performance, it is time-consuming to mount and dismount each engine with its four screws.

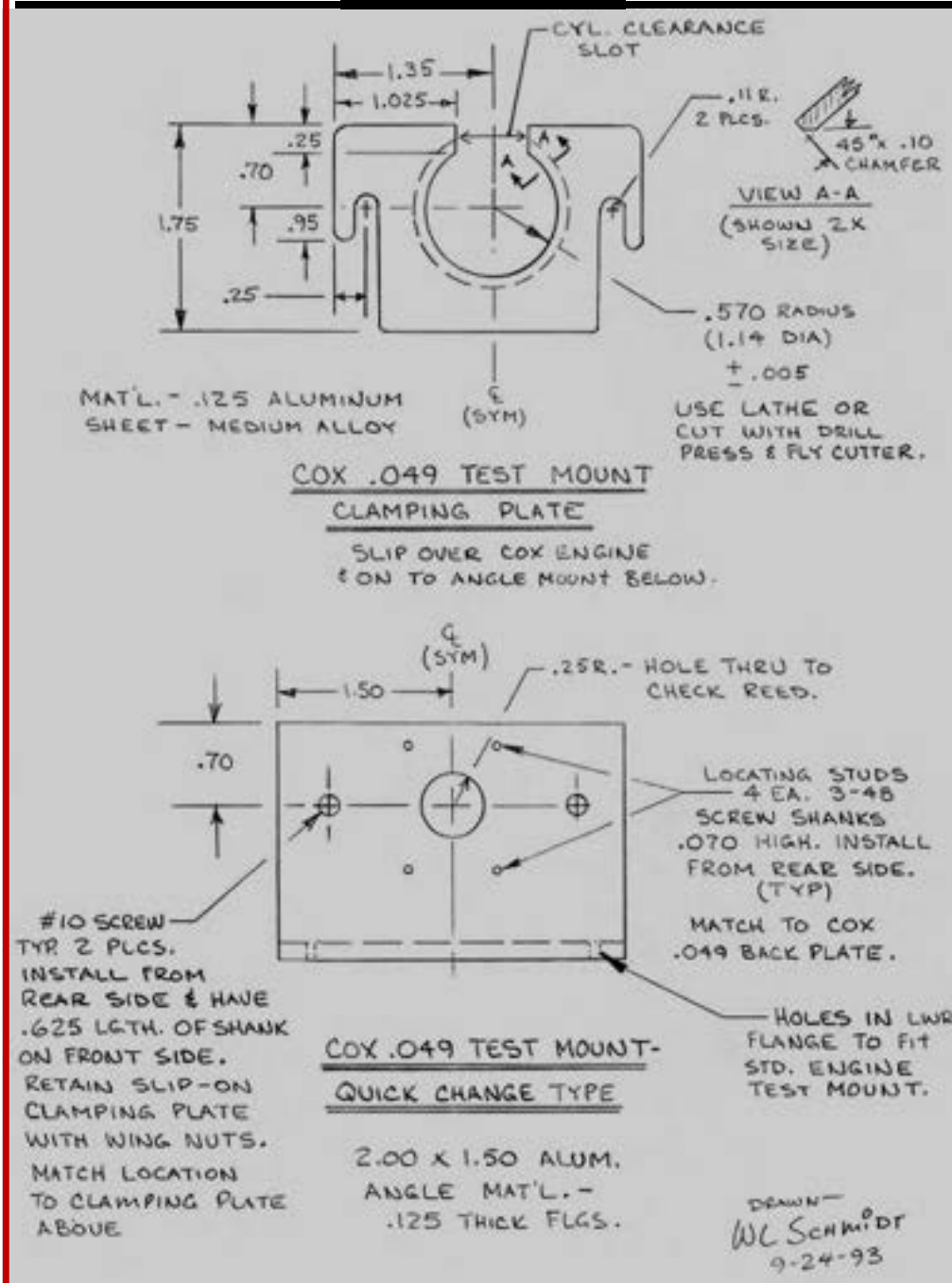
What you need is a fast and affective test mount design that allows quick mounting of the Cox .049 reed engine design.

This design does that, plus gives access to all sides of the engine and does not scratch or mar the various anodized surfaces which is important on an engine such as a "mint" Golden Bee.

A piece of 1/8" thick angle or channel is mounted in a standard commercial beam mount engine test stand. Four locating pins and two #10 threaded studs are on the face of this angle. A 1/8" thick aluminum clamping plate is then lightly slipped over the Cox engine, and then slid into place on the angle mount. You then spin the two #10 wing nuts down on the clamping plate, and the engine is ready to run. The wing nuts are left on the mount, and only loosened to change engines. This mount really makes running one's Cox engine collection an easy chore.

Fabrication sketches for this neat little "gadget" will be found in the adjacent diagram.

Credit for this contribution is due to:
Bill Schmidt, Jr.
4647 Krueger,
Wichita, KS 67220



MORE FROM "FRANKLY SPEAKING"
By Frank Zaic

Youth and Age: Like high and low ampere batteries; age needs lots of small recharges, while youth can go on one high charge for a long time.

Do not trifle the days away. They will never come back.

At his age, he deserves all the mischief he can get into.

Life is what we make it. So, if we complain, it means we did not make a good job of it.

The most often heard phrase these days: "This used to be only".

My future will be my past.





Jan. - Feb. 1994

SAM SPEAKS #115

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OLD ELECTRIC
TIMER

JIM ALABACK



In my last OT Electric column, I reported on the Losier Electric model which was published in FLYING ACES in October, 1938. In response to that item, Dave Durnford, of

SAM 35 in England, wrote to bring my attention to an earlier electric-powered model in England, which was described in a 1919 U.S. publication. The model aviation column, written by John McMahon for AERIAL AGE (New York, July 28, 1919) gives a report on an English inventor's electric model of that era. I think you will find this excerpt from the 1919 article about an early electric modeller's trials and tribulations to be interesting:

"Experimenting with models driven by electricity has never been attempted in this country to the knowledge of this writer. The only one to have experimented in this respect with any degree of satisfaction was Mr. H.R. Kerruish, an English model flyer who experimented with a model driven by an electric motor and carrying its own batteries. It weighs inclusive 9½ ounces, with an area of 3½ sq. feet. The thrust (static) given is 2 oz., which is just sufficient to fly it, leaving hardly any reserve of power. The chief dimensions are: Span 4ft. 6inches; Chord 9 inches; Overall Length 2ft 11 inches; Elevator Span 18 inches; Chord 4 inches. The Propellor 14 inches diameter and 10 inch pitch. The complete weight of the power plant is 5½ ounces, and of the model, 4 ounces. It is very lightly built, but nevertheless is quite

strong. It flies 7mph in a dead calm, but will not fly in any wind. The power plant is made up of a common trimotor specially wound and carefully lightened, driven by six small cells constructed somewhat on the lines of the Delarue silver chloride cell, but embodying alterations which are only known to Mr. Kerruish. The thrust of 2 ounces mentioned above is given off by the powerplant for a period of about one and a half minutes. He cut down the weight in every possible way, carpet thread soaked in glue for bracing instead of wire, and the planes are covered with the lightest chiffon doped with a the thinnest solution sufficient for coherency. The model has flown quite well in suitable weather, and was given its initial flight in the road opposite the inventor's house after dark, when little traffic was about, enough light to do so being afforded by the gas lamps. The model was started off in the middle of the road, and the inventor keeping up with it by running, which is possible owing to its low speed. As it has such a small reserve of power, it only rose about 4 feet high, but kept fairly consistently at that height, so that it was possible to keep going in the direction desired by lightly pushing on the front to one side or the other. On one occasion, the model was steered down the road in this manner for a distance of 152 yards, the flight then only finishing owing to a connection working loose."

In reading this 1919 article, I noted that the indicated wing area of this model was about the same as today's Astro Electric Viking. The Viking must weigh 27 ounces to meet the minimum

wing loading of 8 ounces per square foot, but I have never seen one that light. That gives some perspective to the to the 1919 Kerruish electric model weighing 9½ ounces, ready to fly!

Can any reader provide information on other successful electric models built in the pre-1943 SAM era?

Dave Durnford also sent the following photo which shows his 72" span Radio Queen model, Colonel Taplin's 1949 design.



The original of this model has been documented as flying in 1957 with electric power and radio control. Dave's model uses an Astro 40 geared motor with 20 cells of 1400 mAh.

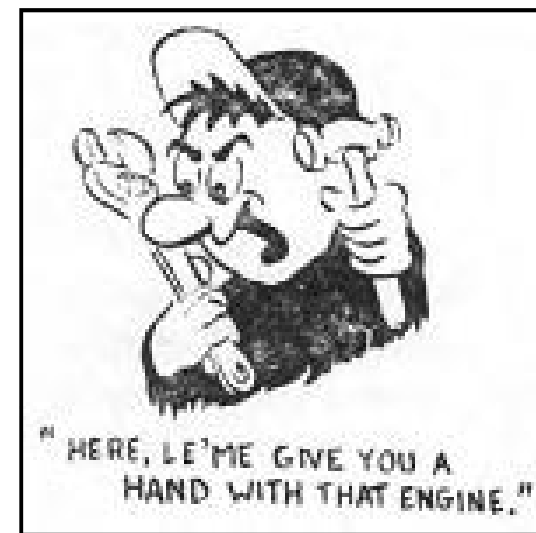
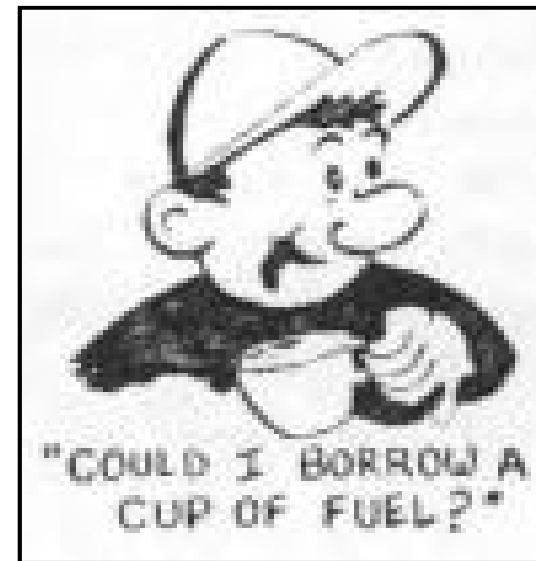
With regard to electric flying in England, Dave has this to say, "Vintage/Old Timer electrics are very popular in Britain. Of recent years, the luxury of flying spark ignition engines and the like has become something of a memory in many parts as more and more residents become "noise-sensitive". Do you abandon vintage flying because you cannot use original power plants, or adopt a pragmatic approach and fly "environmentally friendly" electrics? I know which I would (and do) choose."

With SAM members voting overwhelmingly (85% in favour) in 1993 to establish special events for O5 Electric LMR and Texaco events, I think we may be giving impetus to similar pragmatic de-

cisions in the U.S.!

Thanks to all who are sending letters, pictures and Club Newsletters. Everything is read and appreciated and contributes to this column. Send your material to:

Jim Alaback
12366 Nacido Drive
San Diego, CA 92128



REFLECTIONS: I consider myself most fortunate to have made many new friends, as well as to have renewed old ones since taking up this editorship. One of the most valued of these friendships is that of Frank Ehling, who has been gracious enough to have recorded some of those early days on audio tape. Here is one of his stories:



A BIRDIE DID IT! by Frank Ehling

As a young fellow, I heard about this contest which was being held locally and which was called: "A Boy's Day Out of Doors" sponsored by the Rotary Club.

Try as I might, I just couldn't get my twin pusher to go either high or far, as many others had. Some of the kids had compressed-air motors which were capable of long motor runs and flights. The contest was on the next day, so what was I to do?

I had a next-door neighbour who raised homing pigeons, so I asked him if I could borrow one, to which he replied yes, if I was sure no harm would come to it. I assured him that everything would be OK. I then got a shoe box, punched some holes in it, and put the pigeon inside. I then went to my shop and made a 1" model, and tied a piece of string around the nose. I then proceeded to tie the other end to the pigeon's leg, and put him back in the box.

The next day I went to the contest, which was a combination of boat, kite and model airplane events. When I arrived I could see all these models flying, so I walked up to the judges' table and asked if I could register. They took my name and said they would call me when they were ready. It was a very long wait, but finally they called my name, and I went up to the table. They then asked me what I would be entered in, boat, kite or model airplane, and I said, "Model Airplane". "Where is your model?", they asked, so I showed them the box with my little model hanging down. "You can fly whenever you're ready", they said. So...off came the box top, and out shot the startled pigeon into the blue, my 1" model coming up be-

hind.

The surprised judges didn't know what to do, so they started their stop watches.

The pigeon flew circles around the park down to where the pond was where the model boats were sailing, stopping only for a quick drink, then off he went. He circled the field once more, then home he went.

The judges were talking among themselves; they didn't know WHAT to do!

The modellers were besides themselves. The judges read the rules VERY carefully, but the rules said, "ANY POWER" could be used, which upset the compressed-air fliers no end, but they (the judges) had no choice! I was clearly THE WINNER!

I was awarded a beautiful certificate, which bore the name "FRANK V. EHLING". I'm not sure that the judges could see my 1" model, but I AM sure that they could see the pigeon!

My neighbour who owned the pigeon, after seeing my picture in the paper, never could stop bragging about his bird, and how it happened to win a model airplane contest!

Hopefully, there will be more of this material upcoming in future issues. I have asked Frank if he would add more to his tape, so that we may all "partake" of his great past.

We have a great heritage, with many great personalities, and if possible I would like to get others who were involved in those "early days" to participate in what I firmly believe could be a highlight of this publication.

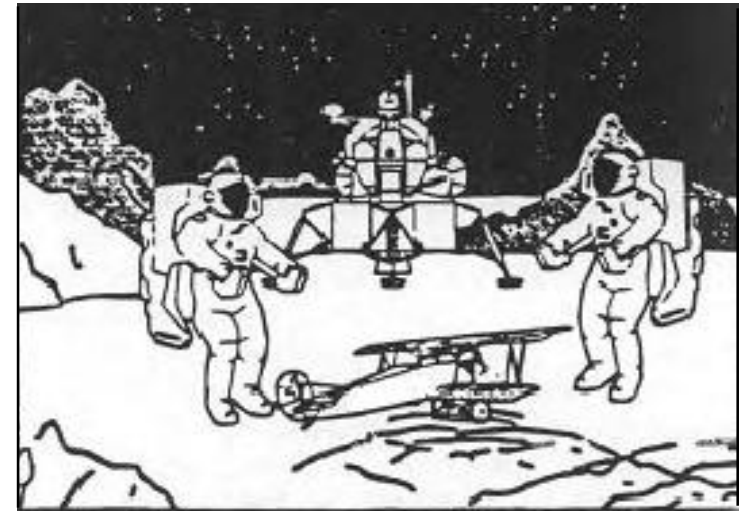
If you out there like this kind of thing, let me know who YOU would like to see "profiled" in this manner, and I will do everything I can to comply with your request/s. Many of you know WHO you are, so don't be too surprised if you are contacted for a shot at: "This Is YOUR Life".

You gotta excuse me now folks, I'm going through MY list, looking for the next "victim". By the way, I have ANOTHER Ehling "goodie" coming up in the next issue. That one's a BEAUT!

Let's go on with more "STUFF"....



An early Valkyrie is shown atop this old Austin mini-car, completely dwarfing this little vehicle.



"Sure beats the hell outta me, Hank!"



I'll bet you're waiting for some easy secret to become apparent, like the lube, the prop, the attitude, the practice, my press secretary, the members of my cabinet (led by Fudo), my toothpaste...."



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