



Points of Interest:

- 2014 Oldtimer Events Calendar.
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**Season's Greetings
to all Members and Friends
from SAM 1788 Australia**

WORTH NOTING: 2014 USA SAM Champs

From Dave Harding, <davejean1@comcast.net>, Champs Manager - "I can confirm the dates of Sunday 14th through Friday 19th September 2014 for the event at the AMA site in Muncie."



**Hunter Valley Championships
1st and 2nd March, 2014.
MUSWELLBROOK**



R/C Oldtimer Competition Events

Saturday: * 10am Start - Oldtimer Glider then Nostalgia.

Sunday: * 9am Start - Tomboy 30 Minute Scramble, 1/2A Texaco then Texaco.

BBQ both days for breakfast and lunch - Drinks, Tea & Coffee available all day.
Check the web site for entry fees, rules and other information regarding this great weekend

www.mdmas.org.au

For further information contact:

Phil Thiethener 0417 725 981 Email: president@mdmas.org.au
Grant Manwaring 02 6241-1320 Email: grantandmary7@gmail.com



ORANGE MODEL AIRCRAFT CLUB Inc.

INVITES YOU TO ATTEND AND COMPETE FOR THE

ALAN BROWN

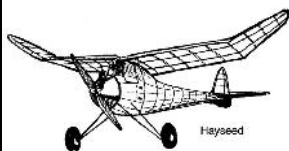
Perpetual Memorial Texaco Shield

On the Weekend

1st and 2nd FEBRUARY, 2014.

At the

ORANGE MAC FLYING FIELD at BORENORE



Saturday 1st - Commencing at 10am - Gordon Burford Event
Commencing at 1.30pm - Oldtimer Duration

Sunday 2nd - Commencing at 9.30am - 1/2A Texaco then Texaco

(All events will be flown to 2013 MAAA Rules)

For Information contact: Dave Brown - Telephone 02 6355-7298

Duration Times is the official Bulletin of SAM 1788

SOCIETY OF ANTIQUE MODELLERS OF AUSTRALIA 1788 Inc.

President:	Peter Scott	44 Ravel Street, Seven Hills. NSW. 2147.	02 9624-1262.
Vice President:	Jim Rae	40 Garden Circle, Merimbula. NSW. 2348.	02 6495-3530.
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Newsletter:	Ian Avery	17 Kalang Road, Kiama. NSW. 2533.	02 4232-1093.

Committee Members: Basil Healy, Ian Connell.

Email for Duration Times - iwa@iinet.net.au

Oldtimer Events for 2014.

February	1 - 2	Alan Brown Memorial Shield	Orange	Dave Brown	02 6355 7298
March	1 - 2	Hunter Valley Championships	Muswellbrook	Grant Manwaring	02 6241 1320
April	17 - 21	SAM 1788 Championships	Canowindra	Grant Manwaring	02 6241 1320
May	3 - 4	Veterans Gathering	Muswellbrook	Phil Thiethener	0417 725 981
May	17 - 18	Wyong Old Timer Weekend	Wyong	Bob Marshall	02 4363 2818
June	7 - 8	Vintagents Old Timer Meeting	Gratton Field	Dave Paton	0732 455 991
June	14 - 15	New England Gas Champs	Tamworth	Basil Healy	02 4341 7292
July	19 - 20	Golden West Old Timer	Parkes	Peter Smith	0423 452 879
August	(TBA)	Oily Hand Weekend	Cowra	Andy Luckett	02 6342 3054
Sept	13 - 14	Coota Cup	Cootamundra	Grant Manwaring	02 6241 1320
October	4 - 5	Eastern States Gas Champs	Wangaratta	Grant Manwaring	02 6241 1320
Nov	15 - 16	Belconnen / Yass Old Timer	Yass	Grant Manwaring	02 6241 1320

Note: Wyong, Wangaratta and Yass/Belconnen Old Timer events will include Electric Oldtimer Events.



From the President:

Season's Greetings to all and I hope that the New Year finds you a wealth of health and opportunities to fly your models.

The Parkes weekend was really good, weather wasn't always perfect thanks to a brief thunderstorm, which delayed proceedings enough to make it difficult to fly all events.

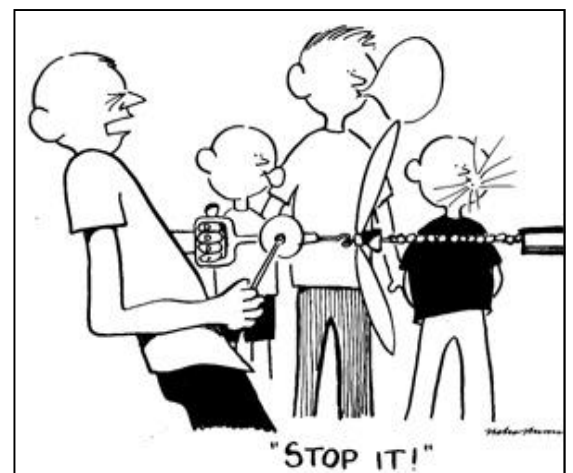
We could have flown Duration on Sunday afternoon but there was a distinct lack of enthusiasm. I think most people had run out of energy, I certainly had!

The Parkes club were marvellous on the catering side. Fabulous steak sandwiches on Saturday with casseroles, curries, rice and lasagna on Sunday taking catering to new heights.

The down side of the event was a flier putting his hand into a propeller!! I'm told ten stitches were administered as punishment. I've said it before and I'll say it again now - a touch of white or yellow paint on the propeller tips shows you the arc of the propeller. Even if you sneer at this, the day you are not thinking about it is when it will catch you out - if the arc is visible your brain will automatically note this fact and avoid the bloodshed. I know, I've sat in the hospital and had eight stitches administered. Tornado at one stage had white tips on their props, but stopped doing it. Maybe everyone perceived they were not 'macho' enough.

Well, I hope to see you at the Nats. Thanks to all who helped all year, with a big 'Thank you' to Ian, our Editor, for a job very well done. I'm sure that he would appreciate more input from members. Thank you to all of you who turned up and flew at the contests. Not only does it make the committee members job worthwhile, it makes the events fun.

Peter Scott.



Canowindra updates. From Peter Scott

The Tomboy event is now a Cabin/Sports Model (designed before 1960) Scramble. 3 minute max, min flight 30secs Everyone has enjoyed these scrambles so far.

Cabin/Sport Model Scramble Rules.

- Model:** Any cabin, or semi scale sport model designed before 1960. e.g. Tomboy, Cardinal etc.
- Motor:** Any up to 1.5cc engine or replica thereof produced before 1960. (.6cc MPJets diesel engines also permitted)
- Flight line:** Models to be launched from flight line into wind. Must land behind flight line and not closer than 15ft to flight line - safety line to be marked. If any part of model crosses safety line when landing - zero flight score.
- The model may land anywhere else behind this line.
- Transmitters must remain on flight line whilst model is retrieved.
- The model must have the motor stopped BEFORE returning the model to the flight line.
- The motor must be hand started, no electric fingers.
- Minimum flight to count is 30 secs.
- Maximum flight is 3 minutes (180 secs)
- All flight times to be recorded.
- Most time in the air, over the allotted time, wins. (The length of the contest will be announced on the day)
- No runners allowed. Retrieve the model yourself.
- Time Keeper:** Please arrange yourself a time keeper beforehand. Score cards will be provided.
- Scoring will be written down in minutes and seconds only.

This really is a standard Free Flight scramble, but as models are R.C. it should be more fun.

Free Flight Event at Canowindra.

The Free Flight contest at Canowindra will be, as usual, on the first morning - early. Rules as per MAAA vintage power BUT we have a modification to make it easier - you may use a 2.4 radio to turn off the motor and operate the DT, which must be a tilt tail. All must be a one way operation. So, if your model is heading for the ground with the motor flat-out and you're quick enough, you can stop the engine and/or DT it, thus saving the model. Also the DT function will be helpful in trimming or if the model is rapidly disappearing down wind in a straight line. It will save a long retrieval. You will also be saved the trouble of finding a clockwork timer, wondering whether it will work this time etc etc. The very light servos, batteries and receivers now available make all this feasible. Here are a couple of pictures showing how I did my free flight model.



Results - Golden West Oldtimer - Parkes 16-17 November, 2013

Gordon Burford Event

Peter	SCOTT	Jaided Maid	BB	900	560
Peter J.	SMITH	Spoofem	PB	900	340
Peter R.	SMITH	Ollie	PB	900	325
Jim	RAE	Amazoom	PB	900	
Grant	MANWARING	Lil Diamond	PB	877	
Alan	BRADY	Spacer	BB	816	
Peter van de Waterbeemd		Stomper	PB	465	
Basil	HEALY	Dixielander	PB	167	
Bob	MARSHALL	Atomiser	PB	114	

'38 Antique

Dave	BROWN	Flamingo	O&R 60	1800
Peter	SCOTT	RC1	Whirlwind 60	1718
Peter J.	SMITH	Standby	Madewell 49	1694
Jim	RAE	Rambler	ED Hunter 3.46	1453
Peter Van de Waterbeemd		Scram	GB 5cc	1429
Alan	BRADY	Comodore	Madewell 49	1167
Basil	HEALY	RC1	Sparey 5cc d	1105
Grant	MANWARING	RC1	Burford 5cc d	862
Bob	MARSHALL	Quaker Flash	ED Hunter	L/O

Tomboy Scramble

Peter van de Waterbeemd	1386
Peter R.	SMITH 1378
Peter	SCOTT 1295
Peter J.	SMITH 1204
Alan	BRADY 1105
Basil	HEALY 1101
Bob	MARSHALL 1094
Jonathon	WHALAN 943
Jim	RAE 517

1/2A Texaco

Darren	LYNFORD	Playboy	1260	1189
John	BRADBURN	Lil Diamond	1260	1044
Jim	RAE	Pine Needle	1260	1022
Basil	HEALY	Atomiser	1260	358
Peter R.	SMITH	Valkyre	1260	
Peter van de Waterbeemd		Lil Diamond	1245	
Peter	SCOTT	Lil Diamond	1226	
Craig	THORNTON	Playboy	1180	
Bob	MARSHALL	Little Diamond	709	
Grant	MANWARING	Lil Diamond	440	
Peter J.	SMITH	Lil Diamond	DNF	

Texaco

Darren	LYNFORD	Lanzo Bomber	ASP 52 4/	1800
Dave	BROWN	Flamingo	O&R 60	1773
Peter	SCOTT	RC1	Burford 5cc d	1755
Grant	MANWARING	RC1	Burford 5cc d	1703
Craig	THORNTON	Lanzo Bomber	OS 60 4/	1690
John	BRADBURN	Bomber 85%	OS 40 4/	1677
Steve	WHITE	Bomber	OS 40 4/	1621
Jim	RAE	75% Dallaire	ASP 30 4/	1613
Peter van de Waterbeemd		Bomber	OS 60 4/	1445
Peter R.	SMITH	Valkyrie	OS 60 4/	L/O
Peter J.	SMITH	Bomber	OS 60 4/	L/O
Alan	BRADY	Bomber	OS 60 4/	DNF

The Golden West Oldtimer - Parkes Report from Peter (Condo) Smith.

The Golden West OT comp was held at the Parkes Miniature Aero Club flying field on the weekend of 16th 17th November.

There was a good roll up. Weather was kind up to lunch time on both days. Small showers and wind delayed '38 Antique which resulted in the postponement of Duration till late Sunday but was then cancelled.

First thing Sunday was the Tomboy 3 minute Scramble, which I thought went well as I was able to land close enough so as not have to hobble too far to get my model. The difference between the winners and losers is a good set of legs.

Two flyers joined different clubs on the weekend. Alan Brady was unfortunately elevated to the "Finger in prop Club" [well his hand and thumb]. Fairly high up the list actually as I heard 11 stitches.

Darren Lynford. 1/2A and Texaco went well, with Texaco a bit trying in the wind and patchy lift.

These two events were won by Darren Lynford. An up and coming OT flyer. Due to his good form on the weekend he is here by ELEVATED to the honourable "To be Watched List".

So that Darren knows what this means I will explain.

- You never have to worry about a time keeper in future, as every time you fly there be lots of watches on you!
- Every time you find a thermal it will be good luck, not sheer skill!
- If you out-climb everyone it will not be because your engine goes well, but some other reason!
- Everyone will now offer useless advice!
- Everyone will want to know your secrets.
- You will hear your name whispered a lot, i.e. Darren is taking off so we will also; Darren is in lift - fly over and pinch his lift; Darren is in sink - let him have it by himself; Darren landed out - followed by a big sighs of relief.

Well done on the two wins, you simply out-flew everyone, congratulations - especially the Texaco win.

I would like to make mention here and compliment all of the Parkes Club Members responsible for the following:

1 - great field, 2 - the excellent amenities block, 3 - the catering staff, led by John Watson.

The food on Saturday was excellent and everyone hoed in [see attached pics]. Sunday we were told was Stew for lunch, well lunch came and there were seven dishes to choose from - all for \$5 [that's not each either]. If your plate didn't hold enough you were told to return and fill it up, no charge. Certainly the best lunch I have had on any field I have flown at in thirty years of OT flying. So to John and the fellow club members THANK YOU ONE AND ALL !

Also available all weekend was tea and coffee and free slice which we all helped ourselves to.

The event will be on again in 2014 - on the 3rd weekend in JULY - 19th and 20th - Same events as 2013.



Left: Les Symonds and his wife Chris - part of the great Parkes Catering Crew.

Right: Parkes Secretary and catering crew leader John Watson.



Above: The Parkes Club crew, led by John Watson, who provided "the best catered Oldtimer event on record", and the fliers partaking of the delicious fare. **Below:** The '38 Antique flight line with the Clubhouse behind. Parkes Texaco crew, Darrren Lynford, discussing tactics.



Below Left: Gordon Burford Event flight line with Condo's high-aspect wing in the foreground. **Below Right:** 1/2 A Texaco flight line.



1/2 A Texaco Fly-Off

R/C Old Timer Glider From Grant Manwaring Photos from Norm Blom.

The Old Timer Glider Test Days have been run for this year, a bit of a mixed bag of weather conditions hampered the Central Coast effort and in South Australia three attempts were blown out with high winds. At Lake George conditions were ideal with light winds and good lift. Over in the west SAM270 chapter ran their first Old Timer Glider competition.

Thanks to all who flew in these days and to those who coordinated the local venues and put these days together. From where we started with gliders few years ago the efforts have been worthwhile with good participation at Canowindra and the performances improving all the time. Maybe six way fly off at the 2014 SAM1788 Champs.

Central Coast Venue from Basil Healy:

Conditions were overcast with a steady southerly of about 4 to 5 metres per second. Peter Scott's Gamma Gull is now handling the winch launch much better since he has added another tow hook about an inch further forward but is still not happy in windy conditions.

Bob Marshall was having problems with a big trim change being required between the launch and the glide with his Frog Prince. This was eventually traced to the wing being set at too higher an angle of incidence. Slowly responding digital trims did not help this problem resulting in the loss of a good deal of height before the model settled into the glide.

Ian Connell did not get his Floater out of the car. I tried a couple of hand tows with my little one metre M 39 but a slight warp in the right wing made the launch a bit tricky and the glide required a lot of down trim to counter the wind resulting in shorter than normal flights. This is definitely a light weather model but lots of fun to fly.

I then flew my Nibbio which handled the wind nicely to record a six minute flight to mumbblings from Peter Scott that the only way to beat it in a competition would be to stand on it and break the wing!

A shower of rain then intervened but when it cleared it was obvious that there was another one following so we packed up and left the field and drove into the next shower which was quite heavy. Regards, Basil.

South Australia Venue from Dave Markwell:

We have not had much luck with glider, or much else for that matter. Our August glider comp was blown out. As was the November 17th competition at Willunga. The December 1st competition at Constellation was called off due to gale force winds, and they went to Willunga today (beautiful) to fly the gliders. Apparently they had gear problems and gave up, and may reschedule. I have been unwell for a couple of weeks so have not been involved. Sorry for no good news. Regards... Dave.

Western Australia taken from SAM270 Windsock Newsletter:

In the west SAM270 chapter ran their first Old Timer Glider Competition on 20 October 2013. They had a fleet of five gliders on hand and some are destined for Canowindra in 2014. Weather conditions with light winds and the gliders launched using a bungee. They now have a winch to practice with for next year.

They like the Lulu design in the west, two at 150% built by Gary Dickens and a 200% version by Rod McDonald. Ian Dixon flew the Leprechaun we saw at Canowindra in 2012. Greg McLure flew a very nice looking Arestes, an English design that shows promise. Results from four rounds are as follows:

1 Gary Dickens	Lulu 150%	826	4 George Car	Lulu 150%	490
2 Greg McLure	Arestes	812	5 Ian Dixon	Leprechaun	193
3 Rod McDonald	Lulu 200%	745			

Lake George from Grant Manwaring:

This was held on 30th November 2013, windy to start but improved as the day progressed. Four flyers fronted up for what was to prove excellent gliding conditions. The Lake George site is an ideal venue for gliding.

After a couple of trimming flights we were able to fly four rounds to the current rules. Don Southwell, John Quigley and myself each achieved max flights in good conditions. Geoff Malone was also along flying the Archangel. In good conditions these gliders are capable of really good flights, as we also saw at the Coota Cup event.

Thanks to the Lake George Soaring League for allowing the use of this great site, a very enjoyable day for all.

Results after four rounds are as follows:

1 Grant Manwaring	Thermalist	1046	3 Don Southwell	Thermal Raider	792
2 John Quigley	DG42	936	4 Geoff Malone	Archangel	525

Contact Details:

Grant Manwaring	Basil Healy	Dave Brown - Model Draughting Services
7 Arthaldo Court	4 Casuarina Close	2 Carey Street
Nicholls ACT 2913	Umina NSW 2257	Wallerawang NSW 2645
Email: grantandmary7@gmail.com	Email: basnpat@tac.com.au	Email: daveb@ix.net.au
Telephone: 02 6241-1320	Telephone: 02 4341-7292	Telephone: 02 6355-7298

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SALE**



The Archangel glider being launched at the Lake George Test Day. Geoff Malone at the controls, Don Southwell and Grant Manwaring assisting, John Quigley in the background.



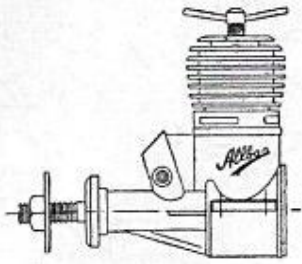
Glider flyers at Lake George, John Quigley DG42, Geoff Malone Archangel, Don Southwell, Thermal Raider and Grant Manwaring with the Themalist. The Lake George site is a great site for gliding activities.

Mildred, the church gossip, and self-appointed monitor of the church's morals, kept sticking her nose into other people's business. Several members did not approve of her extra-curricular activities, but feared her enough to maintain their silence. She made a mistake, however, when she accused Frank, a new member, of being an alcoholic after she saw his old pickup parked in front of the town's only bar one afternoon. She emphatically told Frank (and several others) that everyone seeing it there would know what he was doing!

Frank, a man of few words, stared at her for a moment, turned and walked away. He didn't explain, defend, or deny. He said nothing. Later that evening, Frank quietly parked his pickup in front of Mildred's house, walked home and left it there all night.

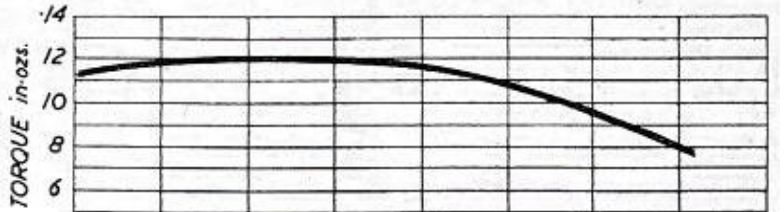
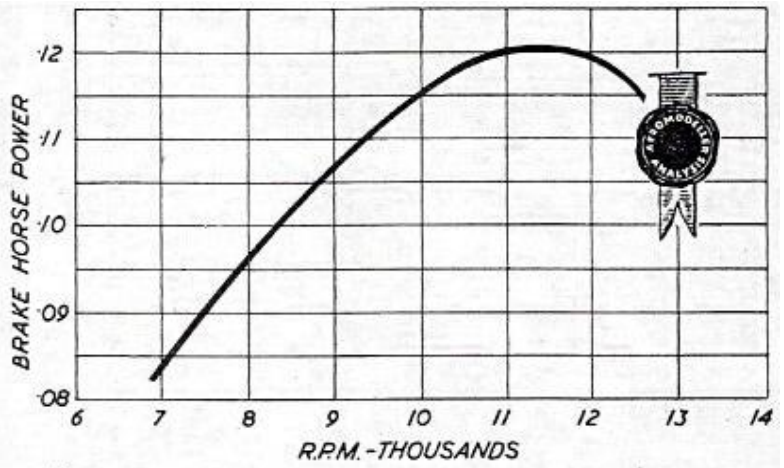
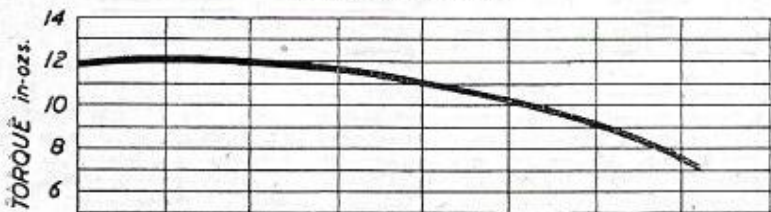
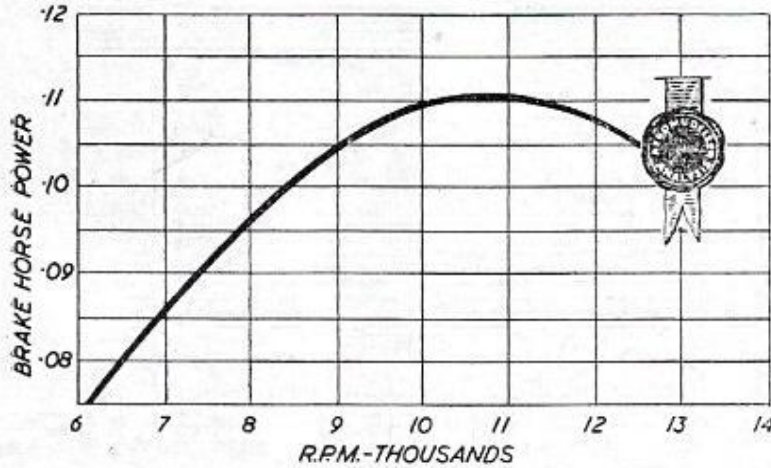
ENGINE ANALYSIS (Revised)

ALLBON "JAVELIN"



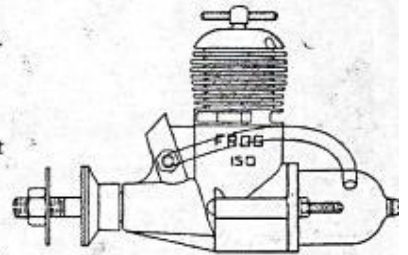
Specification
 Displacement: 1.49 c.c.
 (.0909 cu. in.)
 Bore: .525 in.
 Stroke: .420 in.
 Weight: 3 oz.
 Max. B.H.P.: .121 at
 11,000 r.p.m.
 Power rating: .081
 B.H.P. per c.c.
Previous Test:
 January, 1953

Test engine was run in with care, giving smooth, sustained torque well beyond 10,000 r.p.m. Probably represents higher than average figures. Older Javelins, or those badly treated, tend to give an indifferent performance. The Mark II model represents a definite improvement over the original production, which had an output of .07 B.H.P./C.C.



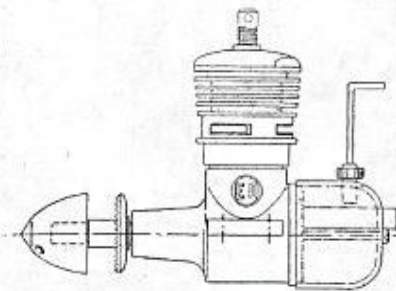
FROG "150"

Specification
 Displacement: 1.48 c.c.
 (.0903 cu. in.)
 Bore: .50 in.
 Stroke: .46 in.
 Weight: 3 1/4 oz.
 Max. B.H.P.: .111 at
 10,800 r.p.m.
 Power rating: .075
 B.H.P. per c.c.
Previous Test:
 September, 1951



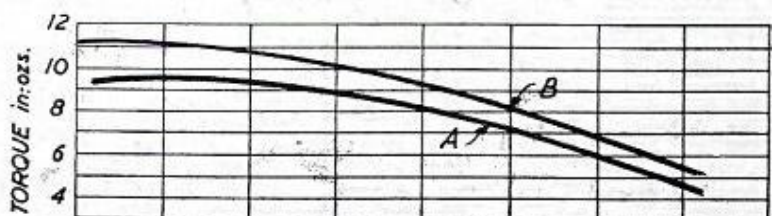
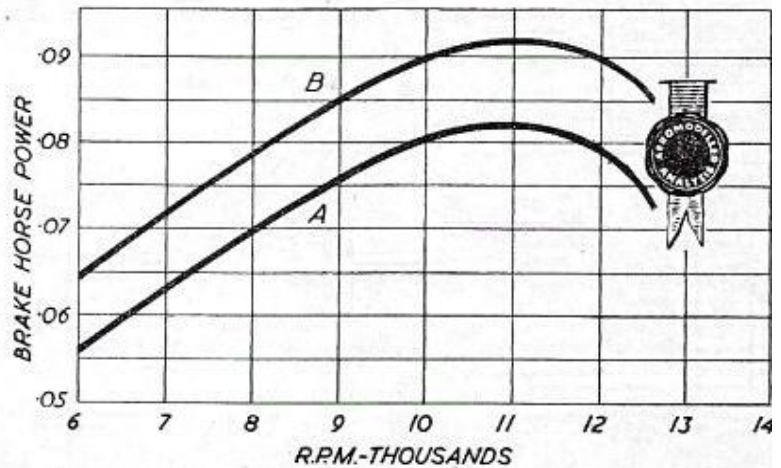
New engine tested which, despite initial motoring to loosen up and normal break-in period, still showed high spots. Upper end of performance curve suffers as a result. Run in carefully for maximum performance, where a peak B.H.P. of .12 should be attainable with a good specimen.

E.D. "HORNET"



Specification
 Displacement: 1.452 c.c.
 (.0885 cu. in.)
 Bore: .531 in.
 Stroke: .400 in.
 Weight: 3 1/4 ounces
 Max. B.H.P.: .092 at
 11,200 r.p.m.
 Power rating: .063
 B.H.P. per c.c.
Previous Test:
 February, 1953

E.D. Hornets appear to show considerable variation in performance between apparently identical production models. Prolonged running-in would undoubtedly benefit the "stiffer" specimens. Feature of the performance curve is good torque developed at low speeds. Curves A and B both for new motors with similar running time.



Locate that lost model by . . .

Compass retrieving

suggests J. G. WALDRON

THE IMPORTANCE of the successful retrieving of a contest model certainly needs no enlargement. Any modeller with contest aspirations will soon find that flying the model successfully is only half the battle.

Now a model can go a long way in four minutes on a windy day, and that assumes one is not allowing that little extra d/t fuse to cover the risk of erratic burning. In poor visibility the model is often going O.O.S. after the first two or three minutes, and there are often obstacles to be encountered, boundary fences to be crossed, and even woods and streams to be by-passed. All those divert one's attention and make it extremely difficult to keep the model's line of flight in wind accurately. Most of us use "rule of thumb" methods for lining up the course of a model such as by taking a line between any convenient landmarks such as trees and buildings, but these methods are not always feasible especially in flat meadow country, or where there are belts of trees which restrict vision.

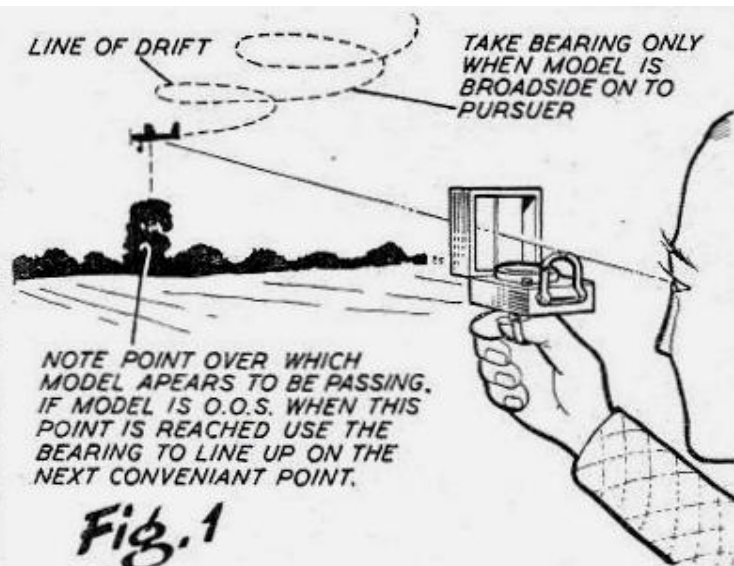
The answer to all this heartburn is quite straightforward and is simply to use a pocket marching compass.

Over the past season the writer and other members of the Henley club have used this simple method of keeping a model's course in mind, and have to date retrieved many models with its assistance.

For instance, at this year's Nationals Dave Painter retrieved his glider using a compass, while the writer located a club member's power model after the owner himself had given up and come back. In this case a bearing had been taken as the model went out of sight from the take-off point. At Northern Heights Gala, the writer retrieved his glider quite successfully after an unlimited fly-off, while by following a compass bearing taken immediately after a timer and fuse failure, Tony Cooke found his power job a night later, three miles away from the club flying ground.

The cost of a marching compass need not be great, it must have sights, a stop to lock the needle, and preferably a mirror or prism to read the bearing; it must also be compact enough to fit in the pocket.

If on open ground and taking a bearing on a disappearing model, it is important to note the spot on the nearest line of trees or hedgerows over which the model appears to be passing, if the model is O.O.S. by the time this point is reached; this will enable one to take a bearing forward from that point, and if it is a prominent tree one can take back-bearings on it later to check the direction of search (see Fig. 2). Better still, take the bearing—from that spot, or any convenient fixed object, or tree which is in line—it is no good just taking a bearing from the middle of an empty field, and naturally it is important to be on the course of the model yourself. Another point to watch is that any bearings are taken only when the model is broadside



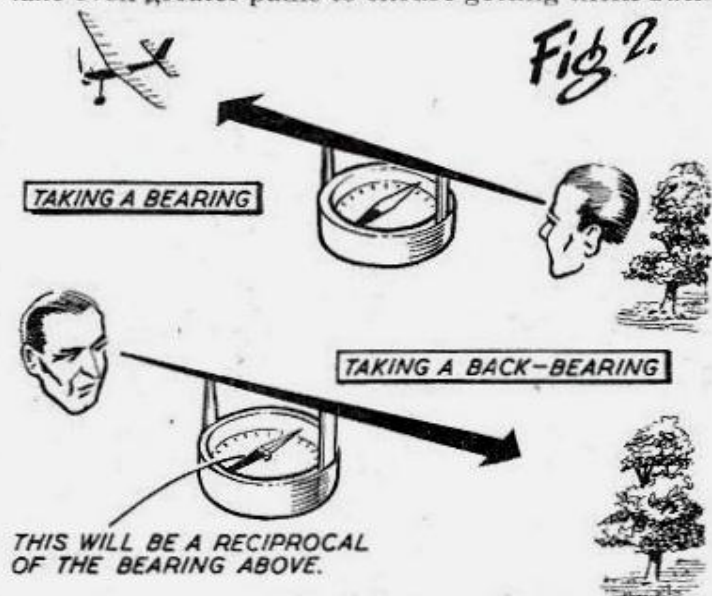
to the pursuer, a model circles fairly consistently about its true line of drift, and any bearing taken when it is facing towards or away from the pursuer will give a false direction.

One has merely to follow up the bearing, appreciating that the model is likely to lie anywhere within the radius of its flight circle from this line. It is possible to by-pass impossible obstacles such as streams and cornfields, by taking a bearing forward to a point on the other side and then travelling round to that point by the easiest route; in this way one continues across difficult country in a series of "hops," but always remaining on the path of the model. If there is a chance that the model will have landed in trees, it is often easier to locate from a distance.

A further advantage is that one can resume a search for a lost model quite accurately at a later date, should the circumstances demand it, provided the bearing and any relevant landmarks are memorised.

Having summarised this system, perhaps we have given the contest-minded types something to think about; much scepticism was expressed in Henley club when the idea was suggested originally, but it has proved itself in use, over a period of time.

We take great pains in the construction and trimming of our models, is it not rather logical to take even greater pains to ensure getting them back?



MODEL

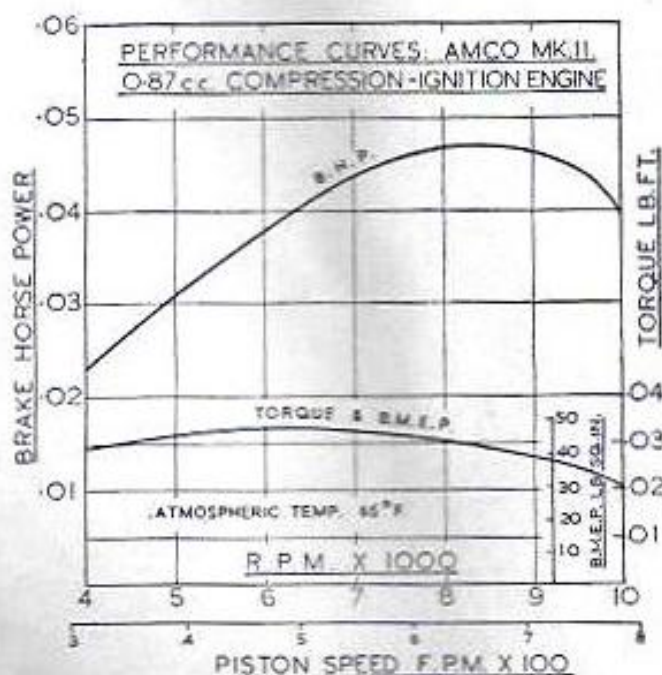
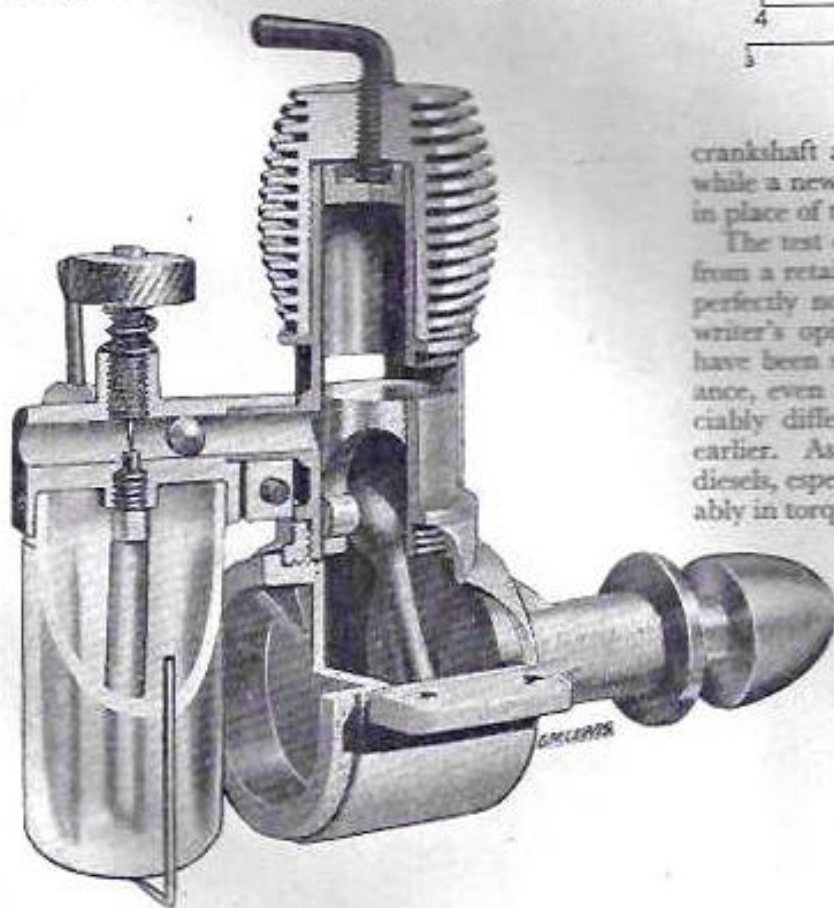
Aircraft

ENGINE TESTS

NO. 19 THE AMCO .87 Mk. II

THE original Amco was probably the first really successful small diesel of under 1 c.c. to be produced in quantity. Built by the Anchor Motor Company, of Chester, a well established firm of automobile engineers, the original Mk. I was noted for good performance, light weight, easy handling and good finish. Of moderate price, the engine was supplied complete with airscrew, combination wrench and even a capsule of fuel. Its introduction was immediately followed by a number of low-price kits from leading manufacturers.

Late in 1948, a Mk. II version was introduced and it is this model which is the subject of this month's test. Principal modifications found in the Mk. II type are in the cylinder, which now features a separate finned barrel and head threaded on to a liner, with groove type transfer passages, in place of the integral turned fins and separate transfer passage of the earlier model. A slightly heavier



crankshaft and thicker cylinder walls are also used, while a new die-cast carburettor assembly is featured in place of the built up brass assembly used formerly.

The test engine was purchased in the normal way from a retail model shop and can be considered as a perfectly normal production unit—in fact, it is the writer's opinion that this particular example may have been slightly below average, since its performance, even after two hours' running, did not appreciably differ from that of a Mk. I version tested earlier. As has been emphasised before, production diesels, especially the smaller types, do vary considerably in torque developed and thus final b.h.p. figures.

Specification

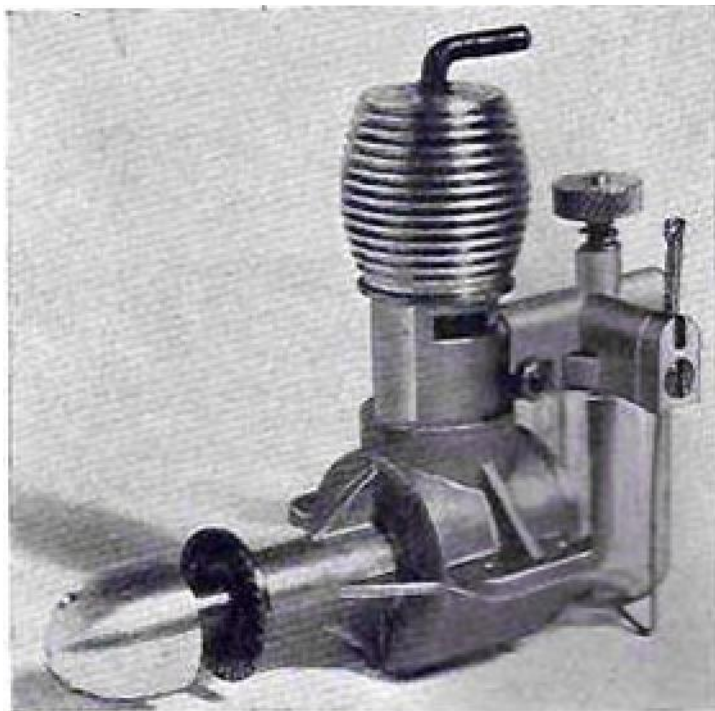
Type : Single cylinder, air-cooled three-port, two-cycle, compression-ignition. Twin exhaust ports. Flat top piston.

Swept Volume : 0.854 c.c. Bore : 0.375 in. Stroke : 0.472 in.

Compression ratio : Variable. Stroke/bore ratio : 1.26 : 1.

Weight : 2 oz.

General Structural data : Pressure



die-cast crankcase and main bearing in LAC. 112 alloy. Detachable screw-in rear cover, die cast in LAC. 112. Cylinder of S.14 steel, hardened and ground, screwed to crankcase. Separate screwed on finned barrel/head. Piston and contra-piston of S.14 material, hardened and ground. Connecting rod of S.11, tempered, unbushed eyes. Die-cast one-piece carburettor body and fuel container with built-in positive action plunger type cut out. Detachable transparent fuel container. Entire assembly clamped to intake pipe and may be rotated and locked in position for inverted or side mounted operation. Beam type mounting lugs.

Test Engine Data

Total time logged prior to test : 2 hours.

Fuel used : Mercury No. 3.

Performance

The Amco 0.87 starts very easily indeed. No priming is necessary ; one simply chokes the intake for a couple of flicks and the engine will then start easily from cold. The cylinder head and needle-valve adjustment are numbered for easy reference, although neither compression, nor carburettor adjustment, is in the least critical and the average power model enthusiast would have no difficulty in starting the Amco within a few flicks without prior knowledge of the precise settings.

Little readjustment of controls is necessary between starting from cold and attaining normal running temperature and, on the free-flight propeller supplied, a warm engine can be easily re-started with one choked flick, without touching either compression lever or needle-valves.

During the test, the Amco was run at speeds ranging from 3,000 to a little over 10,000 r.p.m. It behaved well at all speeds, running smoothly and holding even revolutions. The cut-out works well and needs a minimum of effort from the timer to operate it.

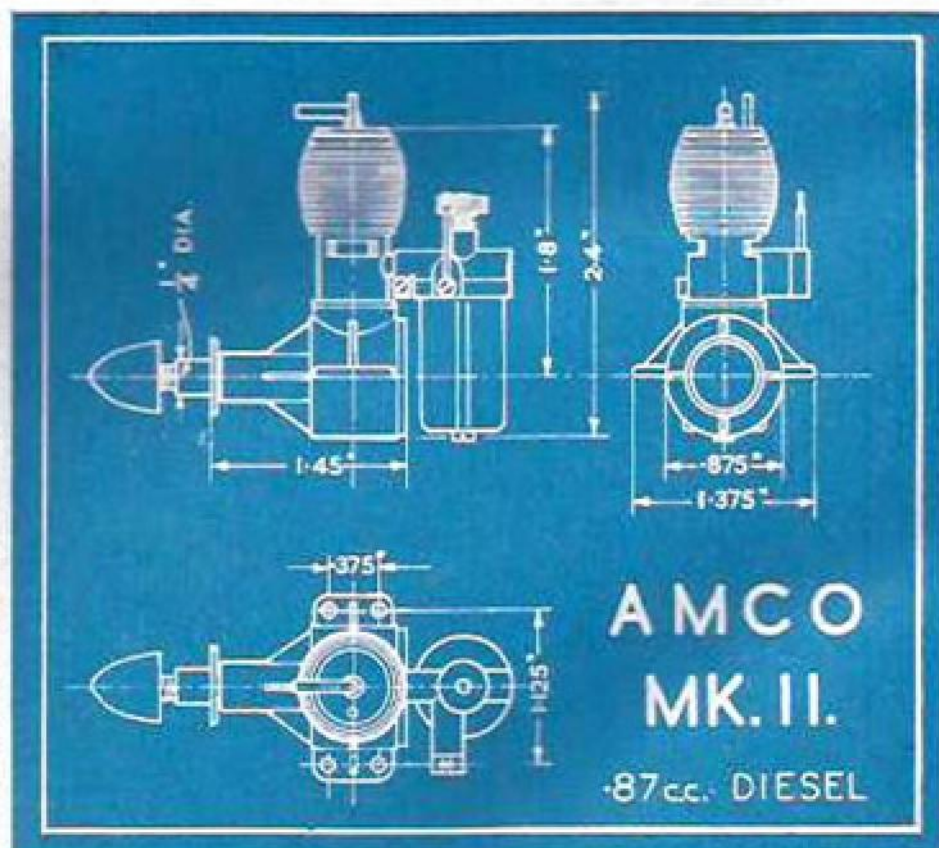
Maximum torque was found to lie at approximately 6,500 r.p.m. The decline was steady and resulted in a very flat peak to the power curve, little variation in b.h.p. being evident between 8,000 and 9,000 r.p.m. Actual output reached was 0.047 b.h.p. This compares quite closely with the figures claimed by the manufacturers for this model.

The Amco 0.87 is primarily an engine for free-flight work and, as such, is well suited to both power-duration models and scale or semi-scale types. For the former type a 4-in. pitch propeller of 7 to 8 in. diameter is favoured, the smaller diameter allowing the engine to approach its peak output and being generally suitable for small fast-climbing models, while a diameter nearer to 8 in. can be used with models of over 200 sq. in. wing area. The writer's engine has been used with success in two power duration models, one of 160 sq. in. and another of 220 sq. in. The Amco is, however, quite capable of flying a lightweight scale or semi-scale model of up to a maximum of 300 sq. in. wing area.

In general, the Amco 0.87 can be regarded as a thoroughly practical engine for general purpose or competition flying, as many contest successes show, and is also strongly recommended to the beginner acquiring his first engine.

Power/weight ratio : (As tested) 0.376 b.h.p./lb.

Power/displacement ratio : (As tested) 55 b.h.p./litre.





THIS model was designed in October, 1949, to the Nordic specification which was then being discussed. The object of the design was to produce a job capable of giving a good account of itself in any weather conditions that were likely to be encountered. It was extensively test flown over the winter months and showed itself capable of an average of just over four minutes in still air.

In the first competition for which it was entered, the 1950 Pilcher Cup, it took second place. This competition, as readers will probably remember, was flown in a gale, but in spite of this unfavourable weather the model went up straight on the towline and flew in steady circles when it came off. Unfortunately, the towline (of waxed fishing line fitted with a rubber tensioner) was not strong enough to take the model up under these conditions and it snapped on each of the three flights before the model was able to reach a reasonable altitude. It should be noted that the model was still in perfect flying order at the end of the competition, thus showing its robust construction and general airworthiness.

Fuselage

The sides are built on the plan in the usual manner, fairly hard 4 ft. wood being used for the longerons and medium for the uprights. The sides are then joined at the rear, the weight box formers added, followed by the cross-pieces. Bind and cement the towhooks to the $\frac{1}{4}$ in. square braces and fill in with $\frac{1}{8}$ in. sheet either side. Complete the remainder of the sheeting, then fit tailplane platform. The chute box is then built and glued firmly into place. Those modellers who prefer to use the tip up tail dethermaliser should, of course, omit the box.

Wings

Cut out the wing ribs by means of a ply template. Drill the holes for the dowel tubes in the centre section ribs. Thread the ribs on to the dowel tubes, complete the construction of the centre section, then glue the tubes firmly in place. Do not be tempted to omit the gussets shown on the plan, they are functional, not ornamental. Medium stock is used throughout.

Covering

The original was covered in a fairly heavy type Jap tissue obtained recently from a London model shop, but coloured Modelspan is quite suitable. The colour scheme on the original was black fuselage and fin with white wings and tailplane. Give the fuselage and wings at least three coats of good quality clear dope and follow this with a coat of clear fuel proofer if you intend flying in wet weather. When the covering of the fuselage is completed the auto rudder is fitted.

Dethermaliser

The type of dethermaliser used is left to the individual modeller. The writer considers the parachute type operated by a fuse to be best for gliders, but those modellers that prefer some other type such as a tip-up tail could, of course, use it.

The chute may be either circular or hexagonal with six shroud lines, a small celluloid spacer being fitted on to these. A 16 in. diameter chute with a 2 in. diameter hole in the centre is ideal for this model. The material used is thin silk or nylon.

Trimming

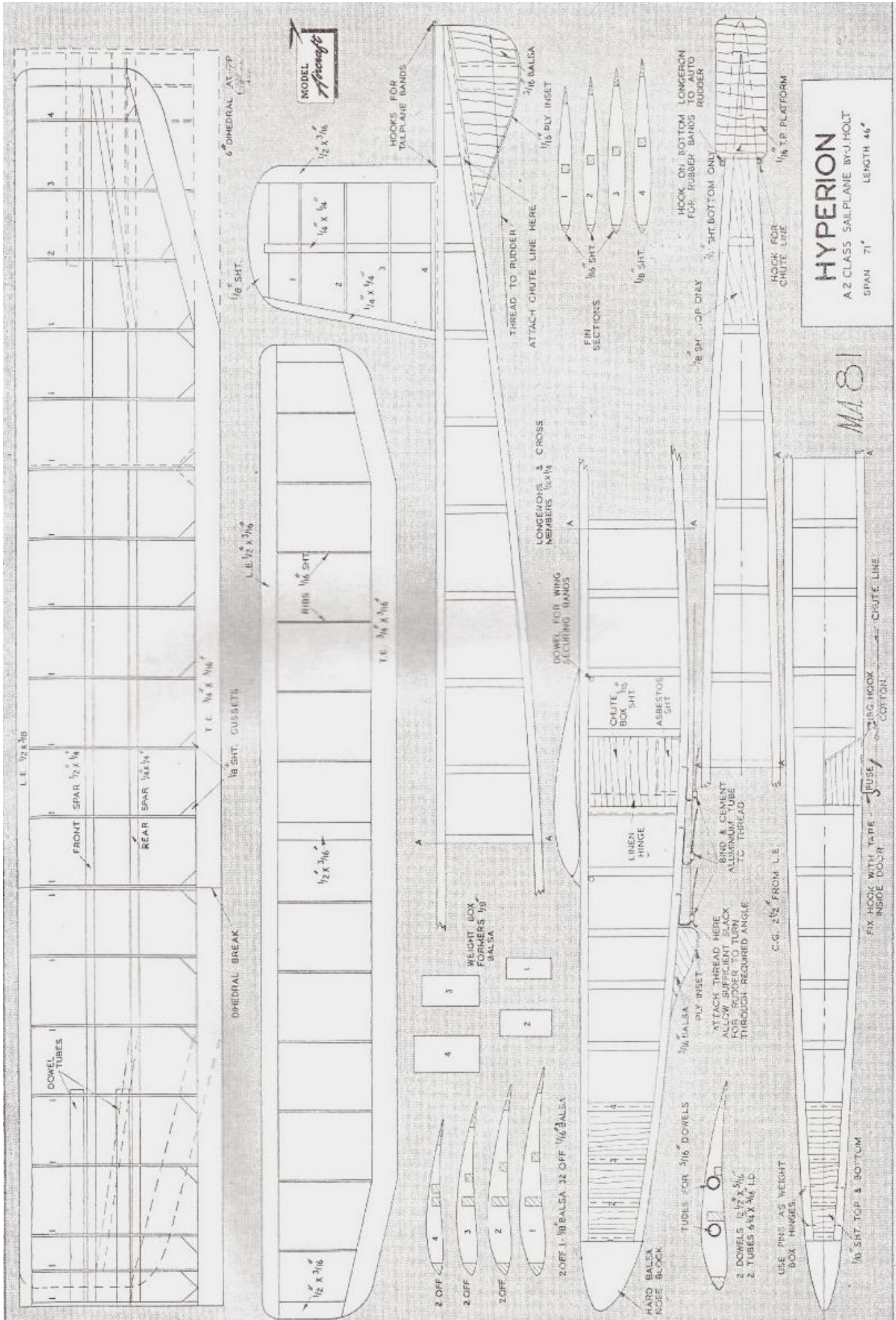
Balance the model at a point $2\frac{1}{2}$ in. from the leading edge of the wing by adding lead weight to the weight box. Check the glide with a few hand launches and adjust the amount of ballast if necessary.

Tow the model up on a short line using the middle hook. It should go up quite straight. If it turns to either side due to a warp or incorrect line up a small trim-tab should be glued to the upper fin at such an angle as to correct the turn. As soon as the model tows up straight adjust the auto rudder to give the required amount of turn on the glide, then trim for best glide.

Flying

If the model is towed up correctly it will reach the full height of the line before flying off. Best results are obtained when it is towed up fairly fast. The middle hook is usually used. In *very* calm weather it is advisable to use the rear hook, and on a *very* windy day the front hook.

Always set the dethermaliser.



FULL SIZE WORKING DRAWINGS ARE OBTAINABLE FROM YOUR LOCAL DEALER, OR BY POST FROM THE "MODEL AIRCRAFT" PLANS DEPARTMENT, 23, GREAT QUEEN ST., LONDON, W.C.2. 5s. 0d. POST FREE.

Covering with Polyspan.

From Gene Wallock velinak@sbcglobal.net

Give your framework 3 coats of dope as follows:

1. Straight dope-Let dry and sand with 400 W/D
2. 50/50 dope-Let dry and sand with 400W/C
3. 50/50 dope-don't sand

Attach the Polyspan with Acetone. Be sure the rough side of the Polyspan is inside.

Dope the Polyspan with 2 coats of 50/50. Sand the doped Polyspan lightly with 600 W/D. If you want to add color, double cover with tissue attaching to framework edges only. Water shrink tissue and dope, after drying brush on 2 coats of 50/50. If any wrinkles appear, iron them out with a Monocote iron.

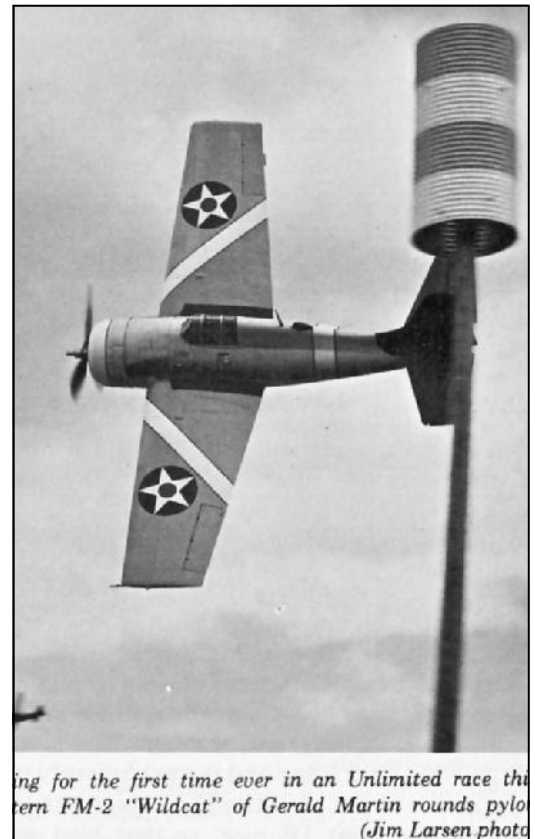
Gerald Martin.

From Sergio Montes jsmontes-1937@bigpond.com

I was looking through an old book on air racing I had in my bookshelf, (Racing Planes of 1977 by Dusty Carter) and I found the photo opposite, showing one Gerald Martin competing in the Unlimited category with a Grumman FM-2 aircraft.

Gerald did as well as could be expected from the Grumman, coaxing an average of almost 300 mph for the race, won by a P-51 at 326 mph.

I assume this Gerald Martin is our friend Gerald, of fond memory for many of us.



...ing for the first time ever in an Unlimited race the
...ern FM-2 "Wildcat" of Gerald Martin rounds pylor
(Jim Larsen photo)

Favourite Sanding Tools From Alfredo Herbon aherbon@coopenet.com.ar

It's true, a sanding device with a thin and rigid core is very useful.

From top to bottom my latest Mickey Mouse sanders:

- 1) Pieces of Pertinax with #120 grit 3M No Past sandpaper bonded to edges with contact cement. Really useful to sand bottom faces of notches.
- 2) One millimeter brass sheet with same #120 sandpaper bonded to both sides, it works great to sand notches in TE for 1.5 mm or 1/16" ribs.
- 3) A cheap Chinese putty knife grinded to a frontal rectangular shape to sand slots for plastic hinges. #120 sandpaper bonded to both sides too.



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From SAM2001 info@sam2001.it

I received today last number of Duration Times with a reference to our L'Aquilone with the M-4 plan. Thank you very much. I wish to explain that the plan was the 4th of a series of plans of the MOVO firma, owned by Gustavo Clerici. With him collaborated some aeronautical engineers, Arve Mozzarini, Ermenegildo Preti and Stelio Frati. The M of the M-4 name is for the firma name MOVO.

Some years ago we received from MOVO all the plans as a gift and now we have all the pdf files in our archive. If someone wish to have a please ask to me.

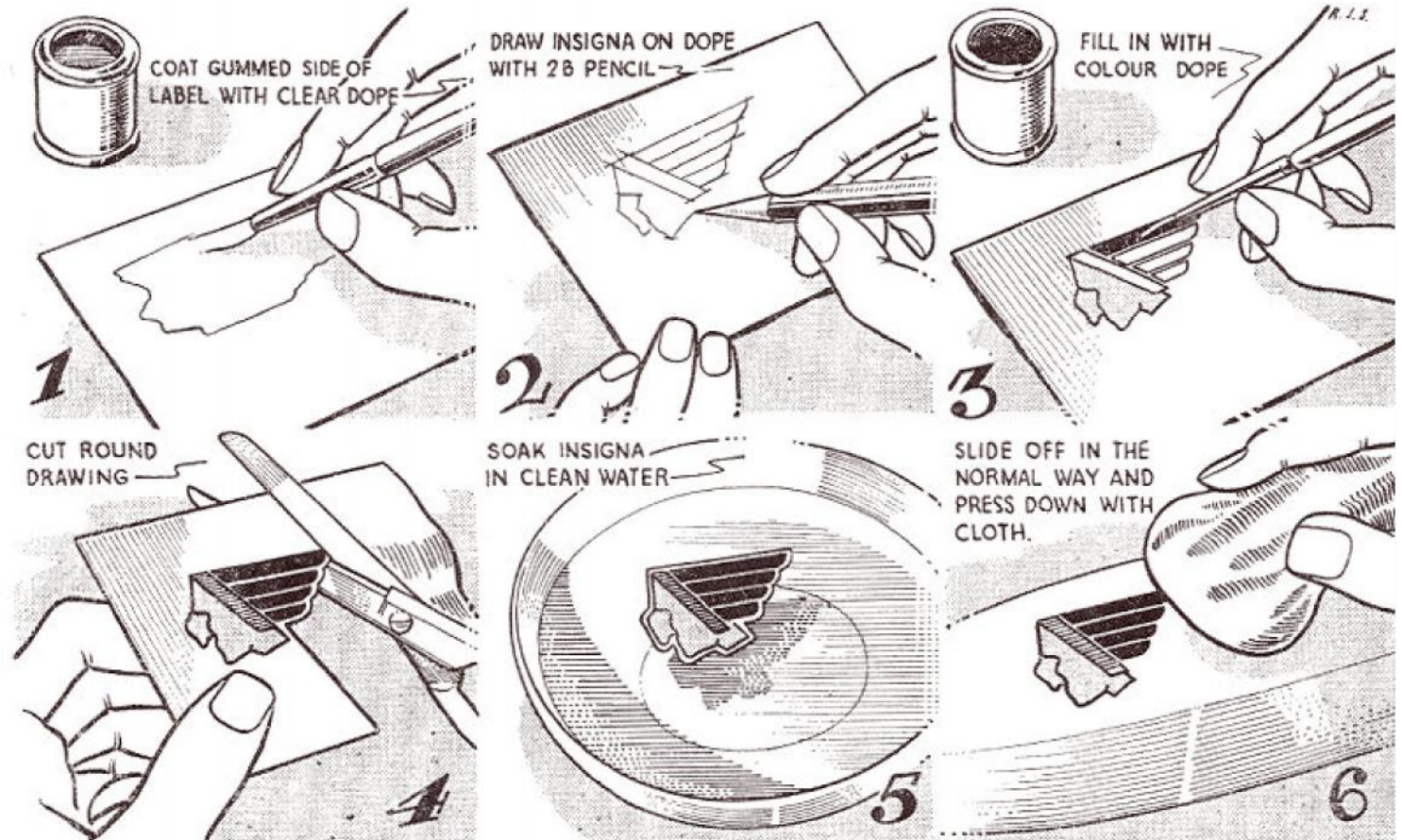
L'Aquilone is the bimonthly Bulletin of "SAM 2001 L'Aquilone" chapter, one of the two Italian chapters. The other is SAM 62.

If some friend of yours would like to receive our L'Aquilone in pdf form, please send me their e-mail addresses.

To you and all 1788 friends and a Happy New Year.

Pino Carbini.





Make your own TRANSFERS

E. J. VINE describes how you can decorate your latest model with a favourite emblem

THIS METHOD of making one's own transfers for solid models or decoration of a flying design reveals a simple solution to the many queries we receive at "AEROMODELLER" offices.

The base is a gummed parcel label (purchased from a multiple store); this is pinned to a smooth board and then given a heavy coat of plasticised clear dope on the gummed surface and allowed to dry.

The next step is to set out the marking or design required; this is best done with a 2B pencil as it requires only slight pressure.

After this, the required colours can be applied in dope (ordinary paint is not suitable) and then allowed to dry.

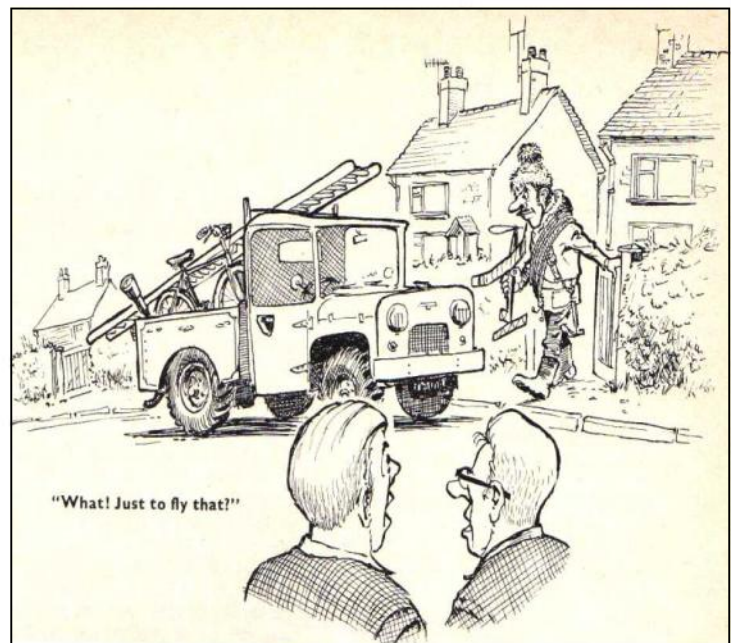
Then comes the most interesting and sometimes difficult part—remove the paper from the board and carefully cut round the design.

The design is now ready for soaking; this is best carried out in a shallow container of water, the transfer being allowed to float on the surface with the design uppermost for a few minutes; it is then advisable to leave on a board for a further few

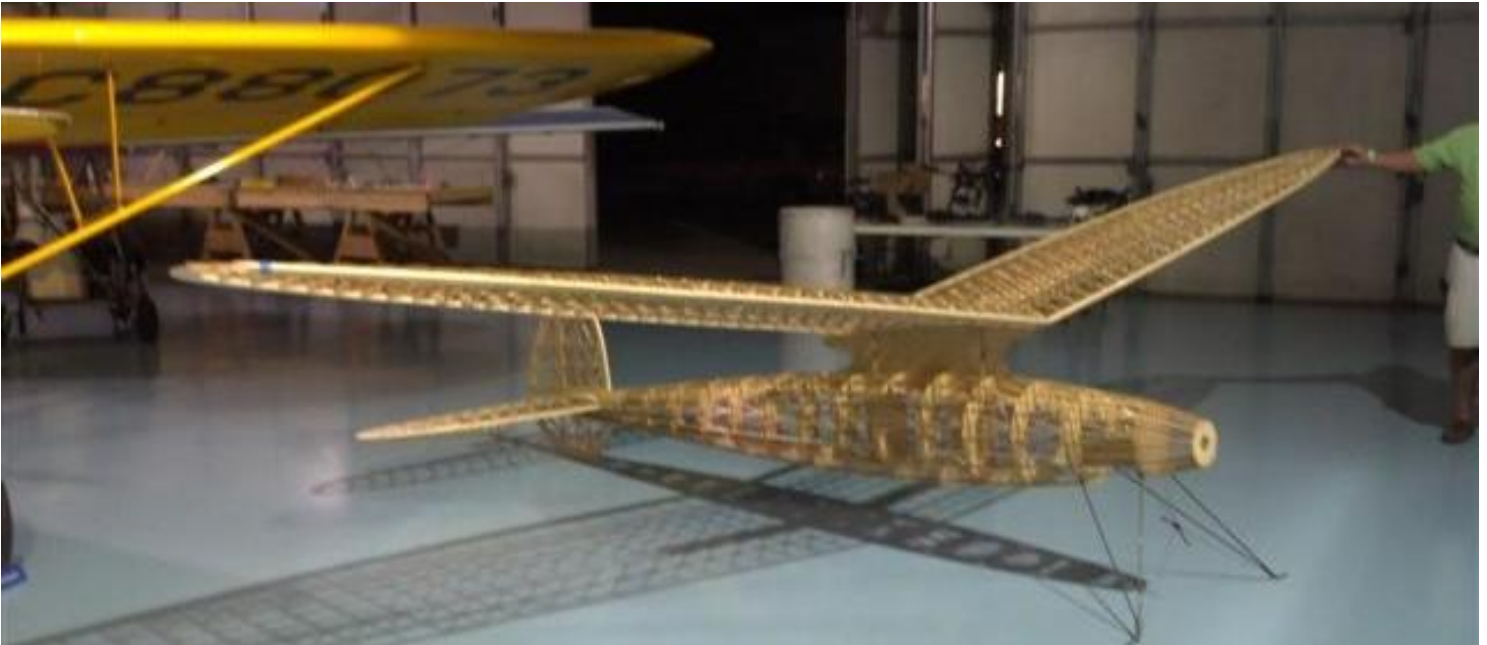
minutes to allow the water to soften the gum between the paper and the clear dope. It is now possible to slide the design off of the paper in the normal way on to the surface of the model and press gently with a clean soft cloth and leave to dry.

The reason for leaving the transfer to soak well is that otherwise the gum is liable to come away from the clear dope and remain on the paper. If this does happen, the design may peel away from the model. In this event a light rub from a moist gummed label on the model should refix it without much trouble.

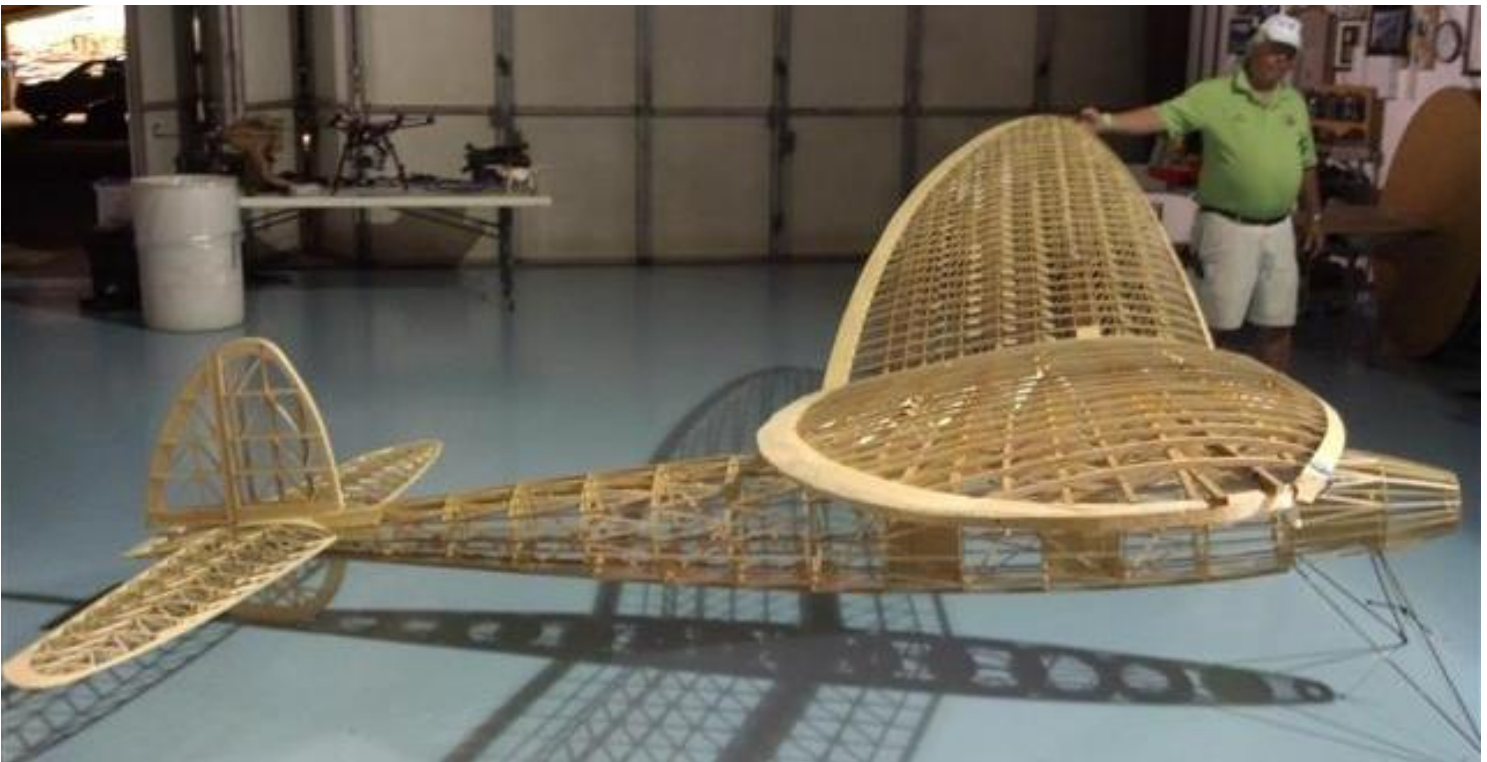
In conclusion, the old adage "If at first you don't succeed, etc." is good advice.



THE BACK PAGE



Double-size Valkyre (20ft wingspan) under construction in USA. Looks like it will be electric-powered and it should be a very impressive model.



CUT IT OUT, CLUELESS!

By Harry Stil

