

Duration Times is the official Bulletin of SAM 1788

SOCIETY OF ANTIQUE MODELLERS OF AUSTRALIA 1788 Inc.

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UPCOMING OLDTIMER EVENTS FOR 2011.

March	6	Oldtimer Duration and Texaco (HV Champs)	Muswellbrook	Basil Healy	02 4341-7292.
March	19-20	Diesel and Texaco Oldtimer Weekend	Wyong Rivers	Basil Healy	02 4341-7292.
April	21-25	SAM 1788 Championships	Canowindra	Peter J. Smith	0423 452 879.
April 30 - May 1		Veterans Gathering	Muswellbrook	Simon Bishop	02 6543-5170.
May	14-15	Belconnen MAC Oldtimer	Yass	Grant Manwaring	02 6241-1320.
June	11-13	SAM 84 Vintagents Championships	Calvert Field, Qld.	Mick Walsh	07 3849-6991.
June	18-19	New England Gas Champs	Tamworth	Peter J. Smith	0423 452 879.
July	23-24	Golden West Oldtimer Competition	Parkes	Peter J. Smith	0423 452 879.
August	20-21	FARCON Oldtimer Weekend	Cowra	Peter J. Smith	0423 452 879.
August	27-28	Oily Hand Diesel Weekend	Cowra	Andy Luckett	02 6342 3054.
October	1-2	Eastern States Gas Champs	Wangaratta	Peter J. Smith	0423 452 879.
October	22-23	Lithgow Oldtimer Weekend	Lithgow	Dave Brown	02 6355-7298.
November	19-20	Muswellbrook Oldtimer Weekend	Muswellbrook	Simon Bishop	02 6543-5170.



From the President: The M.A.A.A. Nationals was a non-event for me. Having been blocked by the closure of the New England Highway at Warwick, enquiries revealed that Dalby was still accessible from Moonie so I set out on a 240 kilometre detour only to find that the road had been closed shortly after I had made my enquiry. After spending the night at Moonie I rang the MAAQ Treasurer who informed me that the Nationals was still going to be held so I set off to retrace the previous days travel only to be stopped by flood water 20 kilometres later. At this point I met up with Terry Bond, the well known free flight flyer, and we quizzed a local resident who directed us on another 150 kilometre detour to get us back to Goondawindi. Here we had mobile phone coverage and enquiries soon told us that a number of competitors had returned home. Dalby was on Level 6 water restrictions and the caravan park where I was booked into a cabin had been flooded. At this stage I made the decision to return home.

My young protégé, Tim Wright, spent three days with me in my workshop building a Tomboy during the school holidays. He is an attentive lad who picked up the necessary skills to make quite a good job of the Tomboy. He took it home and applied his own paint scheme and returned last week to have it fuel proofed. He is itching to fly it in competition to see how he goes against the "big name" fliers. Watch out "Condo" and "Scotty"!

This will be the last Duration Times before the forthcoming Canowindra SAM Champs at Easter will be upon us. I look forward to seeing you all at the Champs and I am awaiting with interest to see all the new models. Once again we have Paul and Kim Farthing to thank for the great venue he provides for our championships and their super hospitality.

Regards, Basil Healy.



From the Secretary: Canowindra is getting closer - Don't forget that entries are required by the last mail on 11th April, 2011.

The venue for the Presentation Dinner on Sunday night has been moved to the Canowindra SES Hall which is located on corner Lockwood and Armstrong Streets, Canowindra.

The Menu has been set and will consist of two roast meats, potato, salads and greens, choice of two deserts, tea and coffee. BYO drinks.

Goulburn Geoff Shaw Memorial Oldtimer on 20th February was abandoned due to high winds. The Oldtimer Gliders did manage to fly early in the until the winds got too strong, after being blown out on Saturday afternoon. The wind caused two gliders to be damaged but both are repairable and will be on deck at Canowindra. There were three models flown for the first time and it was interesting to see the way the gliders handled the very breezy conditions.

I will be not be able to be contacted from 17th March through 4th April so if you have any enquiries please contact me outside those dates. Looking forward to a great champs and can't wait to run my new toys - see you there.

Cheers, Peter (Condo) Smith.

Free Flight at Canowindra.

From CD Peter Scott.....

Starts 8am Thursday morning, we will be flying two classes. 1st will be Vintage Power :- any model design up to December 1957. This also applies to the engines - except we will allow any 1.5cc Taipan plain bearing engines. No upsizing - or downsizing allowed. You should not exceed the motor capacity shown on plan or mentioned in construction articles. 3 flights of 3 minutes, 15 sec engine run, will get you into the fly off. Last person down wins fly off. Winner gets a free flight kit.

The other contest is free flight Tomboy. 1.5cc max if using big wing. 3cc of fuel. 3 flights, longest flight wins. Winner will receive a free flight kit.

We are hoping that Paul will help with retrieving models and if wind is okay should fly from previous site at top end of rear paddock. Any questions please phone me, (02) 9624 1262.

Hints and tips:- always check your warps and timer functions before the event. Put in some low power - short runs to check your model is on trim, the faster the model flies the greater chance of the trim being not quiet right and crashing the model.

I enclose a photo' of my 'Lil Aud', a 1953 design that is very light climbs quickly with an Elfin 1.5cc diesel. I have just refurbished it after many years use. Geoff Potter learned to fly competition free flight with it at Canowindra a few years back and didn't start the timer. It was a small speck in the sky when the motor stopped. Using the onboard tracker we found it in a field about 5 miles away - so , if you haven't got a tracker don't forget to start the timer!



**WYONG RIVER M.A.C.
3rd Oldtimer Weekend
19-20 March, 2011.**

Program

Saturday 19th

- 9am - R/C Tomboy
- 10am - 2cc Oldtimer
- 12 noon - Lunch
- 1pm - Burford Event

Sunday 20th

- 9am - R/C Tomboy
- 10am - 1/2 A Texaco
- 12 noon - Lunch
- 1pm - Texaco

Note: Due to the close proximity of a residential area, vintage spark ignition engines used in Texaco must be fitted with a muffler

**For further information
Contact: Basil Healy
02 4341-7292**

Alan Brown Memorial Old Timer Competition - Orange - 5th & 6th February, 2011.

From Stewart West, President OMAC Inc.

OMAC Inc's annual Alan Brown Memorial Old Timer Competition has come and gone for another year. With a horizontal wind sock all day and wind gusts to about 40 km/h on Saturday the competition was literally blown away - for the second successive year!

However, the weather did ease sufficiently on Sunday to enable the Texaco event to be contested. Congratulations to winner David "Browny" Brown, 2nd placed Stephen "Whitey" White and 3rd placed Peter "Condo" Smith.

Unfortunately about one half of the potential competitors elected not to return on Sunday thus resulting in abandonment of the remaining Gordon Burford, Duration and 1/2 A Texaco events.

About 20 visitors and members enjoyed a good meal and camaraderie at the dinner at the Robin Hood Hotel on Saturday night.

Texaco Results:

Dave BROWN	1938 Flamingo	O&R 60	1200	1006	Basil HEALY	75% Dallaire	ASP 32 4/	1200
Steve WHITE	1938 Bomber	OS 61 4/	1200	911	Jim RAE	Krupp	Enya 46 4/	1200
Peter J. SMITH	1938 Bomber	Foster 99	1200	872	John DIDUSZKO	1938 Bomber 105%	TT 54 4/	899
Peter SCOTT	1936 Super Buccaneer	Foster 99	1200	664				

MUSWELLBROOK DISTRICT MODEL AERO SPORTS

WOULD LIKE TO INVITE YOU TO

THE VETERANS GATHERING 2011

WHEN: 30th April and 1st of May 2011 (This is the weekend before Mother's Day).

WHERE: MITCHEL HILL FLYING FIELD, MUSWELLBROOK.

Hi All,

Hope this find you all well. We are off and running with the countdown to the Vets 2011. Last year was a great turn out and good to catch up with you all.

This year will be a bit different again. There will be no letter going out this year so please tell as many people as you can know about the dates. eg: for those how don't have email.

We are still discussing some ideas around a dinner at the field like in the earlier days and some night flying so put your thinking caps on and let me know what you would like to see or do, send an email or a call me.

Camping is available at the field and a hot shower just down the road at the local caravan park for a couple of dollars.

Registration will be a nominal fee (TBA) and you will receive a badge, this may be done in advance by completing and returning the attached registration form, or register on the day. NO-ONE will be permitted to fly unless registered. Pilots MUST provide proof of affiliation/insurance prior to flying. All flyers will be issued with a numbered badge on the weekend which is to be worn when flying. (This will save you being challenged every time you fly!)

For all up to date information on the weekend: <http://www.mdmas.com.au>

All registrations can be sent to: M.D.M.A.S., PO Box 6, MUSWELLBROOK. 2333. NSW.

Or: Email: coolhobbies@bigpond.com For any other info please contact me on my mobile: 0429 453 286

Regards, Simon Bishop. Vice President. MDMAS

From Dave Brown

Bit of a laugh, to start with, attached picture is taken of Little John and I at Muswellbrook, the photographer (Whitey) sort of thought, with a bit of licence, you could adapt for your cartoon series, in Duration Times, Balloon Captions are a plenty.

Latest news is that Whitey and I are leaving for Dalby tomorrow, Geoff Potter was turned around with floods waters on Monday, at Warwick, and he stayed a couple of days at Scone.

Peter Scott (and Gail) turned around at Tamworth. Condo was all over Goondawindi, Moonie and Millmerrin, but couldn't get through in two days, was last heard of going through Moree on the way home...

Little John and his brother Andrew, made it to Goondawindi, couldn't get through, then got to Toowoomba by the next night, are now in Dalby repairing their travel damage.

Greg Lepp and Brian Dowie and crew, made it to Goondawindi, met up with Little John, and are now in Dalby via overnight Toowoomba. Grounds are drying out, all is a goer now, Happy New Year, More later, Browny. 30/12/2010.



R/C Old Timer Glider 2011 SAM Championships

As mentioned in the last issue of Duration Times, we were able to arrange a testing day at the Goulburn Ted Swan Field for Saturday 19 February 2011. With all the best intentions, on Saturday the wind blew at 40 mph and didn't stop. Alas no flying but we did have an enjoyable evening meal at the Goulburn Worker's Club.

Sunday morning was slightly better and we were able to do some testing of the six gliders that were present. The new models were the Thermal Sniffer by Don Southwell, the Dragon, a twin finned French model, by Peter Scott and a Fugitive built by Jim Rae. Both Don and Peter and good flights, both designs show great promise. Jim's model was slightly damaged but will be ready and tested for Canowindra at Easter.

Other models flown include Basil Healy's MF7 (Italian design), Geoff Potter's Frog Prince and the Archangel by Grant Manwaring. All models handled well in the gusty conditions and show real potential for the SAM Championships at Easter.

For anyone interested in the glider designs, both Basil Healy and myself can help with plans, Dave Brown can cut partial kits as required. Scaling of the designs is permitted, some of the big 12 foot designs, Thermalist, Thunderking, Sunspot could be scaled to 9 foot and still be competitive models.

From the interest and feedback I am hearing, several members are considering building models for this event. I am hoping for 12 entries this year and an even bigger number next year for the 30th Anniversary SAM Champs in 2012.

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Telephone: 02 6355-7298



Upper Left: Dave Brown tries a winch launch for the first time. Geoff Potter launching his Frog Prince.

Above: Don Southwell returns with Basil's MF7 after a hard launch into a thermal. Tailplane failed at the end of the joiner rods. All joiner rods in the tail and wings were bent!

Left: Pete Scott with his French design Dragon.

Right: Jim Rae prepares his Fugitive. Unfortunately it was damaged after stalling on the launch.



Centre of Gravity (CofG) for Tomboys ???

From SAMTalk.

From Van Wilson. vander_e@hotmail.com

Has anybody done any playing around with moving the C.G. on a TOMBOY? If so, are there differences in it for F/F/ and R/C???

Where are the recommended locations?

From Mark Venter. mventer@xtra.co.nz

Hi Van, our January edition of "Torque" has a breakdown of all the Tomboys in our club - interesting reading and shows the wide range of CG & incidences they rolled off the workbenches with....

(Page 12) <http://cmac.synthasite.com/resources/mags/Torque/11/Jan11.pdf>

Owner	Weight grams	ounces	CG %	Decalage	WingLoading oz/sq ft
Ashley Glubb (electric)	220	7.76	46	2	5.1
John Ensoll (Mills .75)	330	11.64	47	4	7.7
Arthur Kotoul (Mills .75)	342	12.06	43	4	7.9
Bryan Coulter (MPJet)	345	12.17	39	3.25	8
Gary Burrows (Mills .75)	358	12.63	52	2	8.3
Mark Venter (Mills .75)	379	13.37	46	3.5	8.8
Stewart Morse (Mills .75)	380	13.40	48.7	4	8.9
Bruce Bonner (Mills .75)	385	13.58	42	5	8.9
Averages (discarding highest & lowest)	356	12.5	45.5	3.5	8.4

From Bruce Carroll. brucecarroll@sympatico.ca

Hello Van, this is a question I have always had since reading the multitude of squabbles between the R/C and F/F factions of our wonderful hobby. The question being, "What difference does it make whether a model is F/F or R/C"? As I see it, a model should fly with the same qualities whether it be one or the other. If a model isn't capable of flying on it's own without R/C control, then it should not be in the air. I feel that R/C control of a model is only to bring it back to the place of launch or as close as possible so that us "old farts" don't have miles of chasing to do.

From Van Wilson. vander_e@hotmail.com

TRUE, *in theory*. BUT!!! An R/c plane needs additional stability to be able to manoeuvre while a F/F model can be balanced on a knife edge of stalling to maximize it's glide, without interference from somebody on the ground talking via radio signals, to it's attitude flippers. IE: If an R/C model had it's C.G. at the rear most point as is common on a F/F and the 'supposed' pilot added some interfering rudder input, the model would likely stall and spin. (I think). Where-as, a F/F model may be able to accept a more rearward C.G. for both the lighter plane weight (No radio stuff onboard) and the lack of expected interference from the ground bound guy that tossed it into the air.

From Reece Otts. olereo@gmail.com

Hi Bruce, Well, perhaps... but a lot of stunt (acrobatic) aircraft might disappear if such a rule were made (and if the rule could or would be enforced). Personally, I prefer free flight not ever having an R/C I could fly. Well, the Ugly Stick would fly, but distance and availability from a desirable flying field has kept my models earthbound.

From Bruce Carroll. brucecarroll@sympatico.ca

Maybe I should have made my thoughts a little clearer regarding the model flying on it's own without R/C. I was not referring to the Pattern type of aircraft or Ugly Sticks and the like. I was referring to the true SAM type of models, if you know what I mean.

From Mark Venter. mventer@xtra.co.nz

My two Tomboys, one RC & the other FF are setup exactly the same CG and both fly the same, no differences.

From Van Wilson. vander_e@hotmail.com

Mark, now that is very interesting. I see only one TOMBOY listed in the chart for you. Therefore I guess that both

of yours are at 46% back from the leading edge of your wing. I also suspect that you have the latitude to move your f/f models C.G. back a bit to maximize its performance. I've noted and studied the chart just prior to saving it in my TOMBOY file. THANX!

From AL Lidberg. aalmps@aol.com

My Free Flight Tomboy balances exactly 2" back from the front of the round cockpit former:

~ Indian Mills .75/.045

~ without the wing

~ no fuel

~ about 1/2" of fuse stuck in the snuffer

~ wheels are 2" dia narrow foamies as sold for little rc models

I haven't particularly thought about the CG on any of my Tomboys. It's the 3rd one I've built [#1 was lost at SAM Champs Muncie 2006 when it placed 2nd, #2 was given away to my control line & engine guru - it flew fine but I didn't like the orange hot rod paint that came from a can labelled 'scarlet'. Don't know if the 2" is optimum but it placed 4th at SAM Champs 2007, and won Tomboy at 2009 SAM Champs.



David Owen's Tomboy on floats.

From Van Wilson. vander_e@hotmail.com

Thanx Al. Now, to the shop to figure out the percentage and compare that to Mark's 46% and also to figure out where mine is. Then to attempt to see if it changes with and without the wing on it.

From Mark Venter. mventer@xtra.co.nz

Van, From the list, if you discard the highest & lowest configurations and average the rest, then it comes out to 45.3% I have seen all the models fly and there is not overly much difference between the two limits other than you could possibly contribute to pilot variances. There is also the differences in weight and wing incidences...

These Tomboys on the chart are only RC but mine is setup identical to my FF one. I fly the FF Tomboy it in our precision events and very difficult to set the DT as it is a real floater if there is any kind of lift around.

From Mike Myers. mikemyersgln@charter.net

Van for what it's worth, I've always started by getting the CG on the spar. It's a remarkably tolerant design so long as the decalage is correct. Out of the dozen or so I've built, I only had one that didn't fly tolerably from the get go. The problem on that one was the fuselage was sprung a bit (which is why I now laminate my Tomboy longerons) and there wasn't enough positive incidence in the wing as a result. It was a bear to trim, but I finally got it done.

From Roy Bourke. roybourke@yahoo.com

If the decalage (longitudinal dihedral) of the FF and RC versions are the same, there shouldn't be a significant difference in the optimum position of the CofG. The CofG can be set anywhere within a window, depending on whether you want a slow glide on the point of stall (to maximize lifting area) or a more stable faster flat glide.

But decalage on a Old-Timer-type FF ship is often set fairly high on the original plans, and CofG set forward (usually at the forward spar), to give lots of stability in pitch (recovers from a dive fairly quickly). But this configuration produces quite a bit of drag, and is not as efficient as it could be.

With RC, such a high degree of stability in pitch is not needed since the aircraft has elevator control. So a more efficient (less draggy) configuration can be obtained by lowering the decalage, and moving the CofG back to the point where a flat glide can be obtained with the elevator in neutral. (This often means the amount of nose ballast can be reduced.)

For RC I set decalage at about +1 degree, set the CofG a bit forward to start with (usually at about 30% of chord for a cabin ship), fly and glide the aircraft using the RC elevator trim function to obtain a flat glide, then observe the amount of elevator up-trim that was set in. Then I start moving the CofG back and glide again, repeating the procedure until the aircraft is gliding flat with neutral trim.

(In high-performance sailplanes, the decalage is usually set so low that the aircraft will not pull itself out of a dive without some up-elevator control input.)

FOR WHAT IT'S WORTH.

From Jim Hainan

JIMSAM40@aol.com

If you fly a very large model in Texaco such as a Dallaire, etc. and wish to use a Brown Jr. this is the tank I would recommend. Or something like it.

The standard Brown tank only holds about 26 cc of fuel. With a tank set up like this you can get your full allocation of fuel. Remember Brown Jr. Texaco and Classic Texaco don't have a limit, just 4 cc per lb.

Fly with spark slightly retarded and use some kind of restrictor in the intake. Experiment with the amount of restriction you need. The restriction also helps to keep the Brown drawing fuel.

As many of you know, the Brown sometimes doesn't want to run the full allotment of time or fuel. It is my experience that it is caused largely because as the engine gets so hot it goes lean. The restrictor will act as a choke somewhat and keep the engine drawing enough fuel all the way up preventing the engine from going to lean.

From Mike Myers

mikemyersgln@charter.net

Avon Skin So Soft is good for getting CA off your skin. It's an oily sort of skin lotion/skin conditioner for women. Back in the day when I used a lot of CA glue, and would/could go for long building sessions, I'd have the junk caked on my hands.

A bathroom basin full of warm water, and a bunch of Skin So Soft on my hands worked wonders for getting the old CA off. It works by getting oil between your skin and the CA. It takes a while, but I'd rather do that than spray nitromethane (which I think is the active ingredient in most CA "de-bonders") on my skin. Since most wives would not like being "pawed" by scaly hands covered with crusted CA --Skin So Soft is pretty much mandatory after a long building session..

The world has changed a bit and it's hard to find an "Avon Lady" these days--but I think Avon does have a web site that you can order from. I don't use it much these days--because I don't use much CA glue.

From Mark Johnson

markandkathyjohnson@sbcglobal.

Believe it or not, Avon Skin So Soft makes a good mosquito repellent too! I wonder if Avon knows about this.

From Ned Nevals

nedne@comcast.net

I waited because I thought someone would surely give out this method of fitting cap strips to ribs, which has been published several model mags over the past few years.....

The easiest method is to cut the cap strips to length and spread aliphatic glue on the cap strips and then same glue on the rib surface (edge?) and allow to dry separately.

Place the cap strip in place holding one end with your finger and then use a monokote heat iron to seal the strips to the ribs. The glues activate from the heat and stick down right now! You could also use Contact cement on both the cap strips and the ribs, allowing them to dry and then attaching the cap strips manually (using this method does not require heat and the second that the dry contact cement comes into contact with the other dried cement-IT STICKS HARD-so due care must be taken when positioning the parts-usually a sheet of paper separating the parts and withdrawn carefully is utilized). I personally prefer the aliphatic resin glue and heating iron method myself.

From Dave Harding

davejean1@comcast.net

Occlusion of the adjacent sky works particularly well on a sunny day. Attached is the picture of my solution to fol-



lowing a model under such conditions.

The viewing device is a pair of toilet roll cardboard tubes painted flat black inside and attached to a headband from a magnifying viewer. I used it to win the 1/2A Electric Texaco event at the AMA Electric Nats a few years ago. It was a really small model and hard to see.

The problem with such a device is if you lose sight of it by moving away it is almost impossible to regain it.

Which leads me to another related story. At the 2008 Muncie Champs a flying buddy was taking his last Electric Texaco flight with his Pacer C. It was waaaaaay high and still climbing. His timer, Mike Myers, said, "Dick, you made the top time now bring it back."

Well Dick was having difficulty bringing it down but no problem, despite some wind it was still right overhead. But the wind blew off his hat and a helpful watcher picked it up and put it on Dick's head, obscuring the model so that Dick lost it.

No problem Laying flat on the ground I had it clearly in my binoculars, but Dick couldn't hear my steering commands so I called for him to come closer. The same friendly helper guided Dick over to me; you guessed it, right into my field of view. I lost it too and neither of us nor our buddies were able to recover it. A half an hour later someone drove up with the model. It had landed four miles away..... Off the Field to score a zero.

From Mike Myers

mikemyersgln@charter.net

Dave Harding mentioned a pair of toilet paper rolls painted flat back inside, and mounted on a magnifying glass headband. Those things do work, although you're in deep yogurt if you lose sight of your model.

I first heard about the toilet paper roll tube trick from Sal Taibi back in the mid 80's. It works fine for timing a high flying FF model. Best of all it doesn't cost very much. And it's even cheaper if you use just one tube! On very hot and bright days at Taft in the old Memorial and Labor Day contests, you'd see three or four "tube telescopes" in use.

From Jim Rae

jsrae@netspeed.com.au

The goodie bag at the Dalby Nats contained a stopwatch. Including the one I got at the Nats I now own four stopwatches. I checked them all against each other, in four minutes three of them were the same and the Nats watch was reading less than $3\frac{1}{2}$ minutes!

So be careful. Using that watch to time a Texaco max, when it said ten minutes you would have been flying for almost $11\frac{1}{2}$ minutes. Before you use your Nats watch I suggest you check it against something reliable.

Since checked some other watches from the Nats Goodies Bag and they were OK.

Wind Gauge with Compass for iPhone

Hi, my name is Brian Koluder and I am a software developer. I have created an iPhone application that I think will be very helpful to your RC aircraft club members. It is a wind gauge that uses the phones GPS to show actual wind direction and speed from NOAA.

Regardless of where you are or which way you are facing, the gauge will show you which direction the wind is coming from and at what strength.

The application is only .99 cents and I think it would be well worth it to know the current wind conditions when flying those expensive aircraft.

Here is a link with screen shots and more info on the application:

<http://itunes.apple.com/app/codestork/id407770307?mt=8>

Thank you, Brian Koluder.



From Sergio Montes.

montes@inet.net.au

During the 1930's and early 1940's there were several Brown Jr clones produced in Italy. They were produced in small numbers and with very small departures from the original Bill Brown design. The first drawing is of Arve Mozzarini's version, which was conceived for an interesting aeronautical project: that of powering scale models of military aircraft to test their spin characteristics.

This was of course without

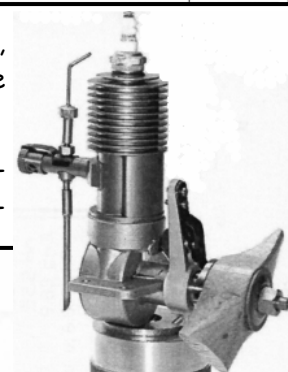
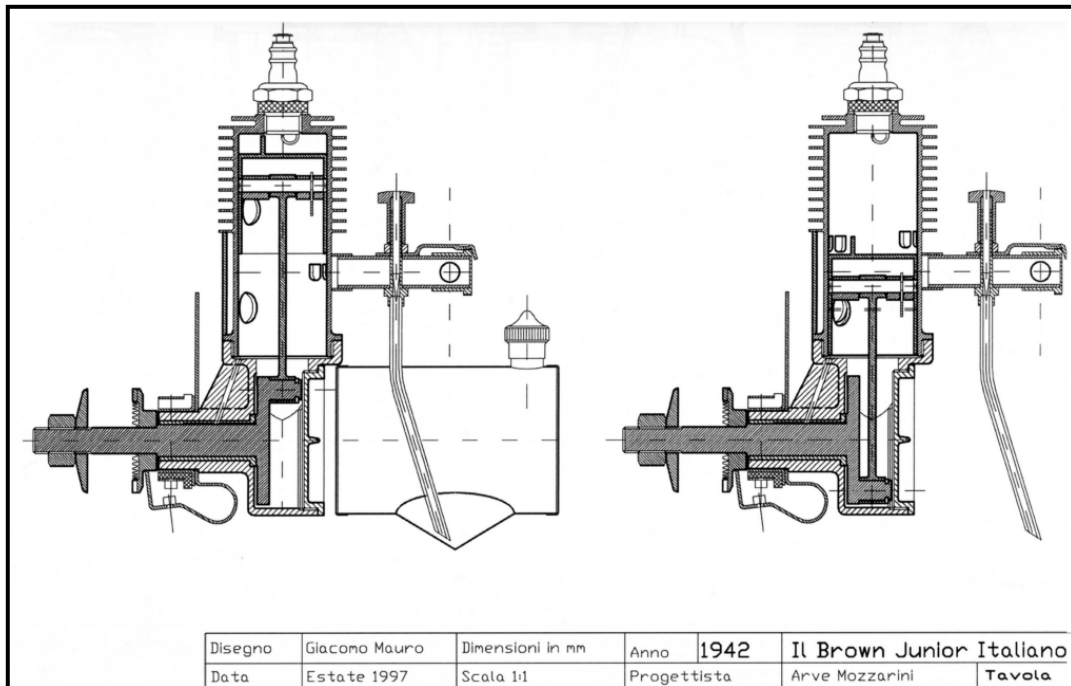
R/C. A timer in the model triggered the spin. Tank design is considerably more sophisticated, also it can be noticed that the spark plug thread is much bigger than in the original, as the Champion plugs were not available in wartime Italy, and Italian Aviomima plugs were used.

The drawing was done by Giacomo Mauro, the author of the great treatise on Italian self-made Engines, and is quite valuable for a current thread on Brown engines to assess the correct piston position.

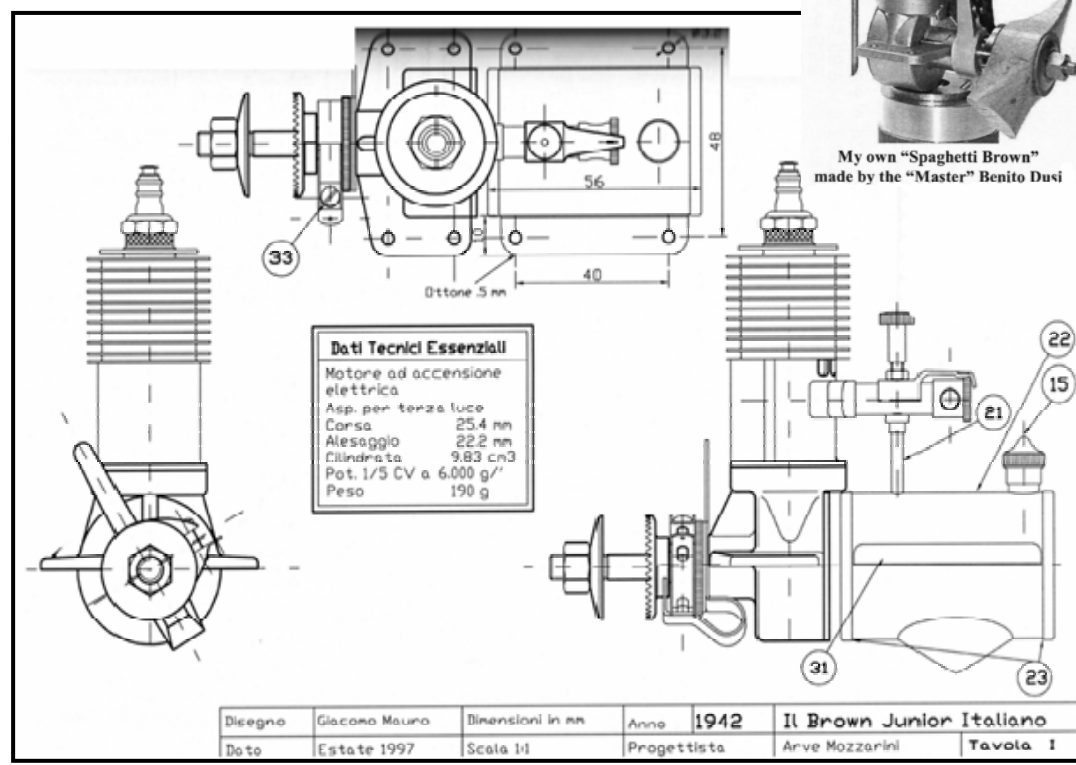
As pointed out before, the baffle should be closer to the intake port, although the engine will run with the baffle in the incorrect position.

I have a good Brown that was greatly improved by re-setting the piston on its correct position.

Here are two more drawings of the Mozzarini "Spaghetti Brown", as drawn by Giacomo Mauro. There is another Italian clone of the Brown, the G.N. 1, developed by Jaures Garofali, later the designer of the great Super-tigre engines. Perhaps Bruno Chiaranti or Nick Bruschi, if



My own "Spaghetti Brown" made by the "Master" Benito Dusi



Dati Tecnici Essenziali
 Motore ad accensione elettrica
 Asp. per terza luce
 Corsa 25.4 mm
 Alesaggio 22.2 mm
 Cilindrata 9.83 cm³
 Pot. 1/5 CV a 6.000 g/min
 Peso 190 g

they read these lines, would be able to amplify the information on the Italian Brown engines. In this regard Mozzarini mentioned that his timer assembly (engine shown below) is improved with respect to the original, and that he added extra cooling fins as he noted a tendency to overheat in his original Brown Junior.

Mauro had a replica built for him, which is shown in the photo inset on the figure below. The timer assembly in that engine appears quite different from that of the drawing.

The impact of the Brown seem to have been very widespread as A. Uralskii in Russia also produced a copy of the Brown in 1938, again with minor differences with respect to the original, plans for which were published in the Italian magazine L'Aquilone in that year. Perhaps it was this publication the source of interest in Bill Brown's engine in Italy.



FOR SALE ~ 75% Dallaire \$130.00

Wing in very good condition ~ 80" wingspan
Fuselage in good condition with a small amount of
hangar rash on left side.

Covered in ProFilm and weighs 36 oz.

Comes with plan.

Motor & servos not included.



ACE R/C Pro Series Super Smart Charger for Nicads \$50.00

Has battery conditioning
& fast charge
to eliminate memory
Up to 2000 ma
RX capacity
12V input
& comes with universal
battery lead.

Contact Chris Chalker on 02-48214455

Electric Old Timer

From Lou Amadio.

Fly more competition events with one model - Part 2

Part 1 in DT167 looked at competing in Texaco and Height Limited OT by simply changing the battery. It is also possible to set up an Electric OT model for:

Height Limited OT / Duration, or Texaco / Duration (Must be antique design to compete in both Duration and Texaco)

When I set up my Lanzo Bomber for HLOT I used a 3 cell battery to gain the extra performance. For Duration it makes sense to explore adding yet another cell, ie 4S pack, leaving everything else the same. Ecalc predicts a big performance boost and a power loading of 250 watts/lb. Calculated climb rate is 18 m/sec, good enough to be competitive in Duration.

Considerations: When swapping packs with different cell counts, you need an auto sensing ESC. Using 4 cells requires an ESC with a robust BEC. Most ESCs have a linear voltage regulator so check the specs. The best ones have an integral switchmode BEC.

You can also install an external UBEC to power the Rx. A convenient place to power the UBEC is via the battery balance lead. Simply connect to the first and last wire to pick up the full battery voltage. Most UBECs will operate from 2 to 4 cells. Don't forget to disconnect the red power lead on the ESC plug that goes to the Rx.

At the time of writing, I have not tested the Duration setup with the height limiter installed. However, both Gary Andrews and Peter Henderson have reported some success, providing you do not want to climb beyond 200m under power.

Summary for my model: Texaco setup - 2S 850 mAh battery (current = 18A, power loading = 65 w/lb)

HLOT setup - 3S 1200 mAh battery (current = 28A, power loading = 140 w/lb)

Duration setup - 4S 1200 mAh battery (current = 40A, power loading = 250 w/lb)

All achieved by just changing the battery. A 10 x 5 APCE prop is common to all three setups. Careful choice of ESC is required to ensure it can operate on 2 to 4 cells and safely power the Rx/servos.

For EOT Competition Rules see: http://www.aefa.dreamhosters.com/files/Electric_Old_Timer_Rules_2011.pdf

For Height Limiters, contact Greg Potter (South Australia) on:

gpotter@opalibusiness.com.au or visit his website at: www.glidergear.com.au

From Steve Boucher sbboucher@verizon.net

I have no problem putting my name, address and phone number on models that are fabric covered. I just make decals and apply them onto the fabric. Decals do not stick to plastic, of course, but if you type your information on a piece of white paper you can press it to the inside of your transparent ultracote, and play a heat gun or iron to the outside and you have a fuel-proof ID.

Horatio Phillips and Cambered Wing Design

Horatio Phillips advanced the discipline of applied aerodynamics with his wind tunnel experiments in the early 1880s. These experiments quantitatively demonstrated George Cayley's theories relating to cambered airfoils - that cambered airfoils produce more lift than flat airfoils. Phillips used the results of his experiments to build three flying machines that, although they had only limited success, applied his theory of lifting surfaces.

Phillips used the results obtained in his wind tunnel experiments to design a series of cambered airfoils based on the shapes of birds' wings. He called these the "Phillips entry," or "blades for deflecting air." They had greater curvature on the top than on the bottom and were called "double-surface airfoils." In 1884, he obtained a patent for eight of these airfoil sections, which were of various widths and curvatures. The theory of lift that these wings demonstrated was based on the variation in camber between the upper and lower surfaces of the wing. If the curvature of the upper surface of a wing was greater than that of its under surface, according to this concept, the air would flow over the upper surface at a greater velocity and produce lower pressures than on the underside. Hence an upward force—lift—would be generated as the higher pressure under the surface sought to become equal with the lower-pressure air above the surface.



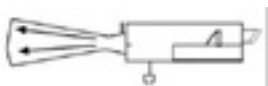
Horatio Phillips patented his cambered-airfoil shape in 1891. Hiram Maxim, another aviation inventor, published Horatio Phillips' wing in his publication titled "Natural".



Phillips' 1904 multi-plane had 20 lifting elements. It flew about 50 feet.



Phillips' 1907 multi-plane was a larger version of his 1893 plane. It flew about 500 feet.



Horatio Phillips' wind tunnel. He used to design a series of cambered airfoils based on the shapes of birds' wings

In 1891, Phillips filed a patent for another cambered wing section. In this patent, he described how the section reacted in the airstream. He stated that when the airstream moved over the curved upper surface of the airfoil, the air pressure would decrease. Therefore, the lifting action of the airfoil was due to a combination of the lower pressure exerted on the upper surface and the higher pressure exerted on the lower surface. By creating a double-surface airfoil with less camber on the lower surface than on the upper surface, the air pressure would be higher underneath and lower on the upper surface. This would create more lift. He concluded that force would be greater above, in the form of negative pressure than below, which was applied in the form of positive pressure.

Phillips' designs demonstrated the first truly modern airfoils. His findings were widely disseminated, and thereafter all serious flying-machine developers used cambered airfoils.

Using the knowledge he had acquired, Phillips in 1893 produced a flying machine that resembled an open venetian blind on wheels. Sources differ in their description of the flying machine, but its wings consisted of 50 slats, between 19 feet (5.8 meters) and 22 feet (6.7 meters) long by 1.5 inches (3.8 centimetres) wide that were mounted two inches (five centimetres) apart. The apparatus measured 9.5 feet (3 meters) high and rested on a long wooden frame 25 feet (7.6 meters) long. A coal-fired 6-horsepower (4.5-kilowatt) engine turned a single twin-bladed pusher propeller at a rate of 400 revolutions per minute. The entire machine weighed between 350 and 385 pounds (159 and 175 kilograms) and rested on a tricycle undercarriage. It was tethered on a circular track with a 628-foot (191-meter) circumference where it moved at some 40 miles per hour (64 kilometres per hour). The two back wheels, which supported most of the weight, rose from the track for a distance of 150 to 250 feet (46 to 76 meters).

His 1904 multi-plane was another application of the theory of lifting surfaces. Again, the wings looked very much like the slats of a venetian blind. This apparatus had 20 lifting elements. Its tail unit was in the shape of a cross and was supported by a three-wheeled undercarriage. The engine, built by Phillips himself, was a four-cylinder water-cooled in-line engine that produced 22 horsepower (16.4 kilowatts) and powered a wooden tractor propeller. It was 13 feet 9 inches (4.2 meters) long, 10 feet (3.1 meters) high, weighed 600 pounds (272 kilograms), and could move at 34 miles per hour (55 kilometres per hour). Its frame was made of spruce, ash, and steel tubing and was covered with a calico fabric. The multi-plane was tried out at Streatham, England, and managed a short "hop" of about 50 feet (15 meters).

Phillips' final effort at flight came in 1907. This aircraft was a larger version of his 1893 plane. This machine had four venetian-blind-wings in tandem and was powered by a 22-horsepower (16.4-kilowatt) engine that turned a tractor propeller. This plane flew some 500 feet (152 meters). It was the first powered flight in England. Although he did not continue building planes, he had clearly demonstrated that flying machines should always have cambered wings.

Judy Rumerman

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- Gibbs-Smith, Charles H. *A History of Flying*. New York: Frederick A. Praeger, 1954.
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My early R/C experience.

From David Owen

I started in 1961 with an Aero Flyte Invader powered by an Enya 09 glow. The Tx was a second-hand ground-based HMV-Wright set made in New Zealand. This had a long antenna composed of several sections of aluminium tubing. Dry-cell batteries were used, one large 1.5V and two 67½ volt batteries in series to give 135V. The Tx was keyed with a hand-held microswitch, which old Cec Holmes had liberated from the local electricity authority. With Cec's help, I built the Rx from a design published in Aeromodeller, winding all the coils myself. The rudder in this first model used a rubber-driven, ED 2-pawl actuator. There were many flights and many crashes.

Then I built another Invader and powered it with one of the new Cameron 15 Glows, a great little engine which sold for \$3.95 in 1961. This is the model in the attached image. It is still up in the workshop! The red Dymo sticker says 'Anderson Spitfire!' What was I thinking of?

(In later years, Ray Brown and I would use an Anderson in a 9' Aeronca. The radio was a single-channel OS Pixie!)

This new model was flown with one of the early Advance Silvertone hand-held Tx's and a matching Rx.

I have included images of the Silvertone rig and my own home-built Rx. Also an photo of the radio installation sheet, which resides in a balsa pocket in the fuse.

There was quite a lot of local interest in radio in those days and at least a dozen blokes would turn up on Sunday morning. We flew at a field near Unanderra and another down near Warilla. All flights were hand launched.

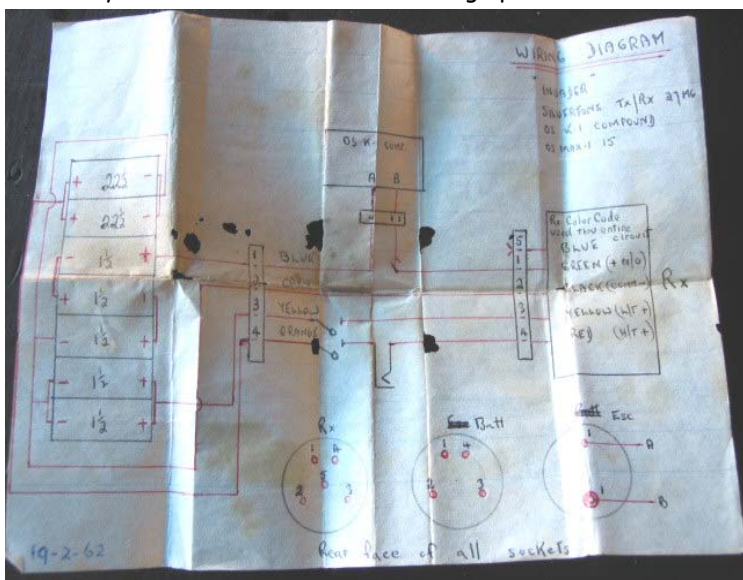
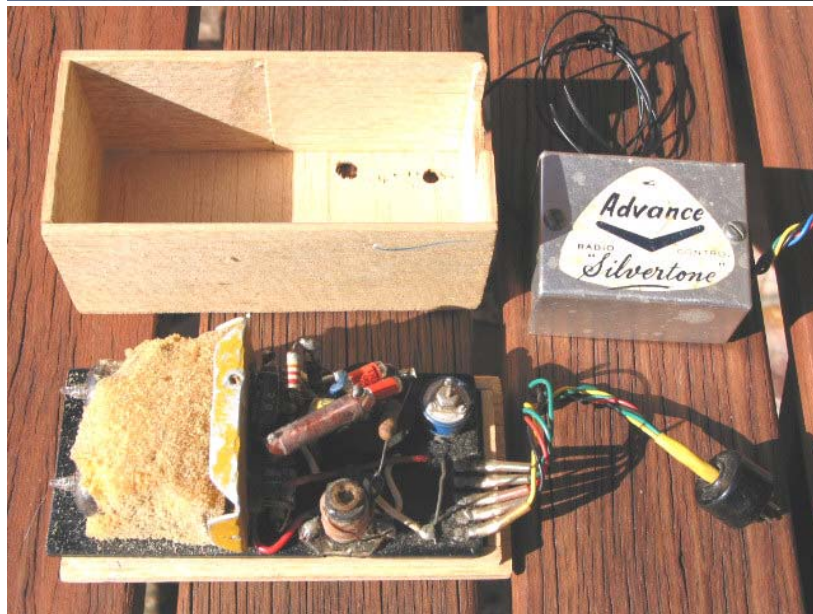
These were single-channel, super-regen radios on 27 Mhz and what with the time taken to tune them and the fact that only one could be in the air at the time (unless you were on 40MHz), you didn't get too many flights in a day.

Typical conversation on the flight line would go: "Have you got it?" "Yeah, yeah.....NO. I've lost it!" And we would leave whatever we were doing and start off after the errant model in the cars.

I lost my Invader once and a woman rang up about two weeks later. She said she had forgotten to ring sooner. She and her husband were sitting on the back verandah when the Invader glided to a smooth landing on the back lawn. She insisted showing me where it landed and I was horrified to see that the back verandah was completely enclosed in glass!

Despite the simplicity of it all compared to R/C flying these days, it was a lot of fun and there was a great sense of achievement in a successful flight.

David Owen
South Coast MFC. Illawarra MFC. Illawarra MAC.



The Great Control Line Gathering 2011

From William Deal

The much anticipated control line day was held in perfect weather at the Mangalore property of Elaine & Tony Gray on Saturday 22nd January. The clock was turned back too many years to remember as many of the modellers in attendance flew control line together in the 1950's! With 16 control line models on show all was ready for some serious fun. As Tony gave the grass circle a final trim the sheep soon found the quiet end of the paddock when the diesel & glow engines fired up.



Merv & Owen Cameron produced a brace of models including Owen's brand new mini Ramrod powered by a Taipan 2.5 glow. The very nicely finished Ramrod ended up bouncing off the turf after an ill timed loop with the motor off song. On inspection Owen exclaimed "they still sell glue don't they!" Jason George surprised everyone by flying the Sabre Trainer first time after receiving only "do this" instructions from Owen. George Gray was thrilled to fly some laps with his Aero Flyte trainer and unlike his grandfather Tony, didn't try a vertical landing. John Moody put in some nice flights with his Blue Pants model and also presented all modellers present with a commemorative "Control Line Gathering" sticker. Many thanks John.

Faye & Bill Hellinger, together with Kerry & George Carnie, made the trip down and found out what the "good old days" were all about. Former control line modeller Peter Wisby heard of the event on the grapevine and was a welcome visitor. At one stage George & Merv ventured into Tony's big shed and there were grave fears that they may never be seen again, however they finally turned up.

Regular "round & round" modellers Dave Christian & Peter Allen had many flights on the day treating us to slick manoeuvres with their well sorted models. Tony Gray flew his newly built and very neat Aerobat powered by a Taipan 2.5 diesel. Fuel starvation problems led to an inglorious landing of the vertical variety which ended the day for the Aerobat. Fortunately no major damage sustained. Geoff Leverton, Gavin Hallam, Ron & Peter McGuinness all arrived a little later in the day with models and all had successful flights. Gavin's little Rascal model powered by a Philtech diesel was flown by Peter Allen who was heard muttering, "I know why they called it the Rascal". Geoff flew a model with a drop off undercart originally from an old control line speed model. Geoff flew the fast little model showing he could "still do it". Greg Hall & John Jounbloed also enjoyed day and flew some "wireless" models. With the control line models only taking up half a sphere there was plenty of room for JJ's electric glider & Greg's wild wing.

The flying session was paused for a magnificent BBQ lunch beside the pool. Sincere thanks to Elaine, Tony and family for providing such a lovely lunch and hosting such an entertaining and memorable day.

Another Control Line day is proposed for autumn on 16th April, 2011.



Group Photo:

Back Row:
Jason George
Merv Cameron,
David Christian,
Peter Allan,
Tony Gray.

Front Row:
John Moody &
Owen Cameron

Unfortunately
the late arrivals
missed the
group photo.



Merv & Owen Cameron (father & son) Phantom - OS 15



David Christain & Gavin Hallam fire up the Rascal - Philtech 1.5

THE GOON

From Mike Myers.
mikemyersgln@charter.net

Designer Fred Lehmborg was an interesting guy. I think he had something of a career as a naval architect. He worked with Sal Taibi at Langley in the early part of WW II (when modelers got "drafted" or recruited to work at Langley). [Didn't keep you out of the draft entirely. By late 44 or early 45, Sal was wearing a uniform in Europe.]

He told me that he designed the Goon with the help of his high school physics teacher--a maiden lady of some age. Fred was designing a "cheater" airplane to beat the rules. A lot of 13 or 14 year olds might be tempted to do that, and the rivalry between San Antonio modelers and Austin modelers was pretty ferocious.

Fred reasoned that the local contest rules focused on wing area for setting up competition classes. What if he designed an airplane with a very big lifting tail? Tail area didn't count under the rules.

Fred approached his physics teacher for some help in designing the airplane. According to Fred's story to me, the teacher told him she didn't know anything about designing airplanes, but she did know physics. If Fred learned moments and levers in the class, she would help him. So Fred learned moments and levers--and she helped design an airplane with a lifting stab equal to 60% of the wing area.

With a short coupled fuselage, the CG is usually an inch or two behind the TE of the wing. That's how maiden lady school teachers motivated kids to learn in 1938. Wish we had more teachers like her--but then she'd need more students like Fred.

The AMA bio mentions Fred's model "*Leaping Lena*". I've got the kit for it. Fred told me that half the young RC modelers in Ventura County learned to fly RC on his Leaping Lena powered by a Veco .19. I'll have to get around to building Leaping Lena some day.



Mike Myers with his contest winning Goons of years gone by.



~~ THE BACK PAGE ~~

"Ever since the Lanzo Bomber was approved as an Antique, this particular design has dominated the competition to the point where this writer has felt compelled to suggest we either handicap this design or put up a special event for it."

". . . if you don't fly a Lanzo Bomber, you might as well stay home. This model is a fine design, but it is so overdone that we could almost dispense with the flight times and conduct an engine test on the ground to determine the winner."

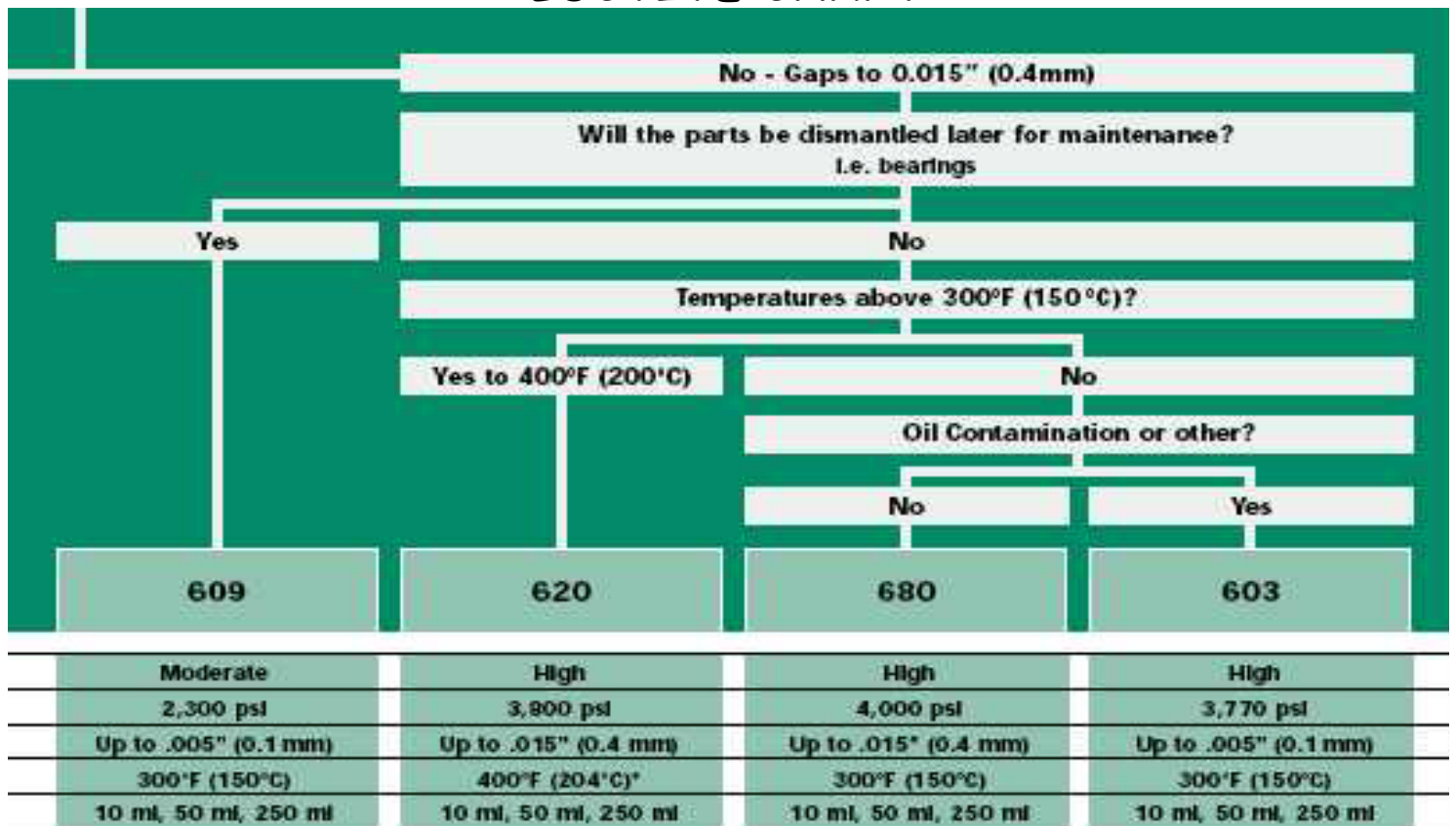
"We need more flyers with the skill and imagination of Eut Tileston."

What's unusual about these comments? They were made 20 years ago, *Model Builder*, April 1990. The first was by John Pond, and the other two were by Jim Horner.

I fly rubber free flight, so I don't have a dog in this fight. But I do find it amusing that it's been going on for 20 years!

Grant Carson. wmgcarson@sbcglobal.net

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