

Model Aeroplane Club

Founded in 1946 by Ray Malmström

July 2015

Edited by Bryan Gostlow Distributed by Tony Harper

Competing in the Nats

to judge or not to judge Gordon Hannah writes



Our esteemed editor was taking an interest in the judging areaWhat the indoor national championships last month andshoeavesdropped on myself and Brian Stitchbury doing our thing onthethe Electric / CO2 section. As a consequence he pressed me intonecjotting something down for our newsletter – possibly as anachenlightenment for those who have had a go or even for thosepha

There is a saying that 'Those who can, do, and those who cannot, teach' – you could replace 'teach' with 'judge', because there is certainly an element of truth in it, in my case anyway. Once upon a time I did aspire to greater things – I think my best placing was a 3rd in open rubber, but that was quite a while ago and as in all things standards have risen. So, why do it? One answer is I like admiring the sheer standard of the modeller's art, and another is that it is nice to put something back into our hobby, and it really only takes up that day. Also there seems to be a lack of volunteers.

who aspire to entering in future.

Caproni Ca-97 by Robert Payas - Brian Stitchbury taking a critical look

What qualifies one to be a judge? I don't really know, you should ask those who appoint the judges that one. I suspect they need modellers who at least have had a go, are not necessarily complete experts, but recognise what can be achieved and can be objective in their judgements, and not be phased by 'big names'. Fortunately in the indoor scene we don't seem to have any prima donnas who may take umbrage at any marking down of their 'immaculate' model. I suspect the R/C scale fraternity may be a bit different as their models are a whole dimension different in more ways than one. I just told Andy Sephton I was available and as a result I have now judged at 3 separate championships – peanut / pistachio twice and electric / CO2 this last time.

What do you have to do as a judge. Give yourself as much time as possible to do the job. It takes at least 20 minutes to judge a model. The different classes have separate requirements and you need to take a slightly different approach. But in principle you start with a mental attitude of full marks and then mark models down for errors. What at first glance is a beautiful model may get lower marks for inaccurate markings, missing details, small errors in the outlines etc. Whereas a fairly simple model may be spot on. Try to have a preliminary look around all the entries before starting and then pick one which at first glance is likely to be in the middle of the field. After marking this you can then look at other models in detail and mark them as better or worse. You can also go back and re-assess any model which has been judged earlier.

There is a complexity element which will help the complicated model and the way this is applied does vary between the classes. There are 'K' factors which are applied to the marks you originally apply (out of 10). For example the marks given for scale accuracy carry a much higher mark up than colour accuracy. This isn't altogether surprising as colour accuracy for an extinct pre-war light plane is almost impossible to verify.

A competitor's view

John Valiant writes

6.8.2 Documentation

The minimum documentation is to be one of the following:

(a) A general arrangement drawing of at least 2 inches wing span, plus one photograph or printed reproduction of the full sized aircraft. If the photograph or printed reproduction is not in colour, then an Authentic written colour description must be included.

or

(b) A coloured 3-view (e.g. 'Profile' publication) to a minimum of 1/144 scale.



All my documentation for the DoFlug was found on the internet and I displayed them together on an A3 sheet mounted on a Foamex board for judging.



From the competitors angle - read the rule book ! Check where you may fall down before you start building and gather all your information together. Judges are told to go by photographic evidence as against drawings if there is a conflict. It is quite clear in the rules as to what has to be presented to the judges for them to do their job. Sadly Peter Smart's fabulous Lancaster had zero marks for his markings as he couldn't produce photographic evidence of the actual aircraft he had modelled – the lettering was that of a crew member who was an acquaintance of Peter.

Finally, please remember the judges are not perfect, a bit like test match umpires !

Gordon Hannah

The pictures, left, shows many of the templates that are created for colour scheme and panel lines plus a colour test to match the documentation as closely as possible. The 3 view copies are used to cut out shapes for air-ducts, undercarriage, ailerons, fin and elevators etc.

Other good sources for colour 3 views have come from plastic kit magazines which I look through in W H Smiths. Unfortunately about 99% are just side views which I am sure would go against me with the judges. Also not sure if you have to supply a picture of the actual aircraft or one which would be in a different colour scheme but the same type. In the rules it just mentions photograph.

In previous years I have asked for the score sheet back to see how the model has been marked but they're not always willing to return them. On one occasion looking down the score sheet I did have returned and noticed that I had not been given 9 marks for a low wing aircraft which made a great difference to the final result (8th to 2nd place).

John Valiant

FROG's Pioneer

Alan Hunter tracks down a review

In the May newsletter we covered a rare FROG Pioneer that had come up for sale on eBay - *but how did it fly?*



Turning the pages of *SAMS Speaks* a report by modeller George Stringwell revealed that Bud Morgan sold at least one Frog Pioneer kit!

"Your piece on the Frog Pioneer in the last "Speaks" pushed the appropriate memory buttons. Back in my misspent youth (early in 1956 in fact), my brother-in-law Eric and I were keen if inexperienced operators of free-flight sport power models. We were attracted by the idea of the "all metal" aeroplane, reasoning such a model might be better able to resist the considerable wear and tear to which our creations always seemed to be subject for some reason(!). As we already had a Frog 150, we raked up the necessary 59/6d (a not inconsiderable sum then) and duly purchased one from Bud Morgan.

As senior member of the syndicate (i.e. he had provided most of the money) Eric got to build the model, a process which he found interesting but not arduous. Covering, though, was another matter, as getting the tissue to adhere to the minimum crosssection metal components was not easy. However, a tolerably

A different world

cuttings from the Great War

When you stood up to shoot, all of you from the knees up was exposed to the elements. There was no belt to hold you. Only your grip on the gun and the sides of the nacelle stood between you and eternity. Toward the front of the nacelle was a hollow steel rod with a swivel mount to which the gun was anchored. This gun covered a huge field of fire forward. Between the observer and the pilot a second gun was mounted, for firing over the F.E.2b's upper wing to protect the aircraft from rear attack ... Adjusting and shooting this gun required that you stand right up out of the nacelle with your feet on the nacelle coaming. You had nothing to worry about except being blown out of the aircraft by the blast of air or tossed out bodily if the pilot made a wrong move. There were no parachutes and no belts. No wonder they needed observers. decent job was eventually completed by dint of doping the framework and sticking the tissue down wet with full strength dope. It was not easy!

You are right to assume that it was overpowered with the 150. It was also HEAVY - we did not weigh our models in those days, but it was certainly considerably heavier than our 150 powered KK Outlaw, which was bigger at 50 inches span. Worse still, lacking any kind of a "D" box the flying surfaces were alarmingly flexible. Also, as the motor was mounted (inverted) on a very thin alloy plate clipped into the rest of the structure and supported by moulded plastic cowlings, the vibration level when the engine was running was alarming. The fuselage even distorted and flexed when flick-starting the motor, and, with the inverted engine, a vapour lock would have been disastrous.

Looking back, I also suspect that there was not enough dihedral.

So there you have it - heavily loaded, over powered, floppy wings, flexible motor mount, inadequate dihedral. Do I have to answer the question "how did it fly?". I won't go as far as to say that Frog's prototype could not have flown successfully in highly skilled hands. But I do know that our version never looked remotely likely to commit aviation! We were using bits of alloy culled from the remains for years afterwards!

There was nothing wrong with the basic layout of the model (apart from the suspect dihedral) and it was attractive enough in a slightly chunky sort of way, a version with a conventional balsa airframe and appropriately powered by, say, a Mills 0.75, would, I am sure be a pleasant looking and performing sportster. But, as originally presented, it was an expensive lemon, and I seem to recall that it was one on the market for a very short time. The tooling and development have been very costly; I don't know how many people parted with their 59/6d, but word soon gets around and I doubt that Frog made any profit out of it. Certainly our experience ensured that no-one else in our circle invested!"



The arrangement as described by **Frederick Libby** an American ace who served as an F.E.2b observer in 1916

IVCMAC newsletter goes global

Richard Staines writes

Attached are a couple of old photos of John Borrill. One is clearly a Dixielander and AM25, a good combination at the time. The other, slightly later, is a Dave Posner Dream Weaver, one of the nicest looking power models of it's day. Again, designed for 2.5cc (Oliver etc.) but John had an ETA 29 5cc glow motor installed. This was the British racing 5cc motor of the day and John's model was one to watch ... very fast! I am testing my memory but would date both to the late 50's early 60's





John was a member of the Boston and District MAC when I joined circa 1954 and became one of my mentors along with 'Chalkie' White, Sid Marshall and Brian Smith before taking his family to Australia in 1966.

He flew free flight and RC gliders in Australia and now flies RC electric gliders, electric and I.C. scale and sports models, gracing, on occasions the Aussie pages in Q&EFI

Recently John has discovered that he can read the newsletter online [ivcmac.co.uk] and is catching up fast.



Somehow, news of the parachute test leaked out and this gave the lads just the chance they needed to make their preparations ...

The parachute test

'Terry'

a scale model with a difference . . or two

It was one of those, "What shall I build next? conversations and, from nowhere, I suggested, "a Pterodactyl". Later I followed this up with an *interweb* search and found: pteroworks.com



Before you could say, "dinosaur" Richard had sent off for the 52" Marston Pterodactyl and was soon secretly building - project codename: Terry



You'll have heard of the infamous Lockheed "Skunk Works"* well, Richard has his own but won't reveal where it is. It certainly looks like it could be a bit smelly.



In well under 143 days *Terry* was ready to go and Richard was double checking - did the head move to the right with right rudder?



There comes a point when the only thing left to do is literally let go . . just a quick check there were no cats around to distract the lad.



Once in the air Terry flew, looped and slow rolled like he'd evolved to fly that way.



Safely back down and a proud parent pauses with fledgling for a photograph.

Richard adds

I don't intend to give a stick part A to part B tale of Terry's gestation as the full building instructions are readable on the website. What I will try to relate is the fun of building such a different structure which has many complex curves and shapes. The wing changes thickness and section all the way along and sheeting has to be applied in several sections with different grain directions to accommodate the compound contours. The sheet has to be well soaked and 'teased' in the fingers to make it more pliable before fixing with a plethora of pins, clamps and clothes pegs. The motors, wiring, ESCs, receiver, aileron servos and wiring loom all have to be installed in the wing before sheeting is completed and then the best instruction that I have read anywhere "sand until pretty".

His fuselage (truly body in this case) is built in the hand and here I deviated from the design by making his head pivot with rudder inputs. The tail feathers and the interlocking mounting of them is ingenious and cleverly thought out (as is his whole structure) with tail servos placed in the rear of the body leaving room for the battery as far forward as possible. He is covered in lightweight transparent Oracover, being prehistoric green on the upper surfaces and yellow underneath. Covering itself was an interesting exercise due again to the quite complex shapes and the very many pieces required.

His equipment (if he will forgive me for being so candid) comprises:- x2 PPO 2827-1350 motors with 6 x 5 propellers, each motor having it's own 20 amp ESC (all from 4-Max) which produce a total of 200+ watts at 17 amps from a 3s 2200 40c LiPo. The total weight is some 28 ounces giving a wing loading of 12.4 oz/sq foot resulting in a power to weight ratio of 117 watts/lb nicely in excess of the 100 watts/lb guide figure for sparkling performance for an electric model.

Well, how would he fledge very nicely thank you (so far) but I think some fine tweaking is required to the rudder settings for the V-tail. He is smooth, steady but quick and aerobatic if needs be and I am sure he will thermal nicely when summer finally arrives. Looking forward to finding out how the true avian population will react to him. To summarise: this has been a most interesting build that had never been on 'the do list' but once seen was 'one to do' with no second thoughts. As a youngster, I found many of Ray's designs were just like that but I can't help but wonder what he would think of Terry.

*Lockheed's Skunk Works

The Air Tactical Service Command of the Army Air Force met with Lockheed Aircraft Corporation to express its need for a jet fighter. A rapidly growing German jet threat gave Lockheed an opportunity to develop an airframe around the most powerful jet engine that the allied forces had access to, the British Goblin. The formal contract for the XP-80 did not arrive at Lockheed until October 16, 1943; some four months after work had already begun. This would prove to be a common practice within the Skunk Works. Many times a customer would come to the Skunk Works with a request and on a handshake the project would begin, no contracts in place, no official submittal process. Kelly Johnson and his Skunk Works team designed and built the XP-80 in only 143 days, seven less than was required.

old school model aeroplane factory

Derek Foxwell kits

Most modellers have a fondness for old designs but often the kits are no longer available or the cuts parts were so poor that most of the wood went into the bin. Fortunately there's a modern solution and laser cutting is capable of great precision and repeatability. Provided the wood selection is good, a modern laser cut kit is probably superior to most originals. Derek Foxwell offers around twenty from his 'old school model aeroplane factory' which can be found on eBay - the name says it all!



30" Vintage Coquette

Some are 'short kits' meaning you'll have all the cutwood but may need to find some stripwood or sheeting.



30" Chatterbox



George Aldrich's 36 1/2" Peacemaker

Comic Cuts

the RFC merges with the RNAS

On the 1st of April 1917 the RAF was formed from the Royal Flying Corps and the Royal Naval Air Service. There were to be 32 weeks more fighting before the Great War ended and *Regular Communiqués* describing air operations over the Western Front were circulated - often referred to as, 'Comic Cuts' by modest airmen.

Communiqué No.19 *covering the 5 - 11 of August 1918* In this week alone 177 enemy aircraft were shot down and 90 driven out of control - just 4 more were brought down by AA 9 balloons were brought down and 242 tons of bombs were dropped - 5,862 photographs were taken 93 'of our machines are missing'

Lt McKay, 201 Sqn [Sopwith Camels], while firing at enemy infantry, was shot down by four Fokker biplanes 300 yds behind the enemy's lines. He made a dash for one of our Tanks and got into it, but on learning that it was about to go into action got out again and escaped to our lines under heavy machine gun fire. Aug 9th 1918



Communiqué No. 31 covering the 28 of Oct to 3 of Nov Major Barker, who was on a refresher course from England with 201 Sqn, while on patrol on a Sopwith Snipe, attacked an E.A. two-seater at 21,000 feet over the Foret de Mormal, and the E.A. broke up in the air. He was then fired at from below and wounded by a Fokker biplane, and fell into a spin, from which he pulled out in the middle of a formation of 15 Fokkers, two of which he attacked indecisively. He then got on the tail of a third, which he shot down in flames from a range of 10 yards. He was again wounded and fainted; on recovering, he regained control of his machine and was attacked by a large formation of E.A., one of which he shot down in flames from close range. He was then hit in the left elbow, which was shattered, and he again fainted, his machine falling to 12,000 feet before he recovered. Another large formation of E.A. then attacked him and, noticing heavy smoke coming from his machine, he believed it to be on fire, so tried to ram a Fokker. He opened fire on it from close range, and the E.A. fell in flames. Maj Barker then dived to within a few thousand feet of the ground, but found his retreat cut off by eight E.A., at which he fired a few bursts and succeeded in shaking them off, returning to our lines at a few feet from the ground, where he finally crashed near our balloons. During the latter part of this combat Maj Barker was without the use of both his legs and one arm, and brought his machine back with the thumb switch. Oct 27th 1918

Sopwith Snipe

Seen at the Indoor Scale Nats

Sunday 19th April in Walsall



Hansa-Brandenburg W.20 designed to be stored and launched from a submarine



Mike Langford's Edge 540 - all printed tissue





Chris's Gee Bee X Sportster

Garry's FWTa 152



Mike Hadland's Bucker Jungmann



Mike Hadland's Stampe SV.4

Last word on the FROG Pioneer

lifted from "Frog Model Aircraft: Complete History of the Flying Aircraft and the Plastic Kits"

1955 shows IMA at last coming up with something startling. The subject is the 38" wingspan all-metal clip-together flying construction kit called the FROG Pioneer. The idea for this was brought to IMA by an outside inventor who had made a small model which was underpowered and would barely fly. It had, nevertheless, the possibility of development and the end product would be, in effect, a flying Meccano set which anyone without experience could expect to assemble easily. Only a small percentage of balsa kits ever became successfully airborne. Buffery designed the Pioneer using the patented principles and made it larger than the original sample in order to take the 150 diesel.

Reviewing the Pioneer in the July 1955 issue of *Model Aircraft*, R. H. Warring, the distinguished model aeronaut, devoted 4½



Robert Payas's Fokker F. IX

Five events:

Open Rubber, CO_2 /Electric, Peanut Scale, Pistachio Scale Glider and Kit Scale

John Valiant has passed me a pdf of the full results sheet which will go out with this newsletter.

If you'd like to know more about any of these models - there's only so much space in a newsletter - then you might like to look up Mike Stuart's FF Scale pages:

http://www.ffscale.co.uk/

pages to it and commented that it ".. could be the start of a new era in model airframe construction . . ". Alas, how wrong everyone was. The Pioneer did not succeed, partly because its weight was too much, partly because of the price (59/6 compared with 30/- for the larger FROG 45) and partly because the public seemed to prefer the more traditional materials. In this connection a note was included with Pioneers saying "WARNING Some of the extruded sections in this kit contain an element of magnesium and on no account should they be put in contact with a naked flame otherwise they will ignite". The Pioneer only ever appeared in the 1955 literature and is now a great rarity. Had it succeeded, the special clips and sections IMA had developed would have come in useful for many other models in the manner of Meccano parts and provided flying models for that great army of potential enthusiasts who lack the confidence, energy and skill to assemble a balsa kit.

Wing Cdr Taylor and his weasel

A few issues back the newsletter included a photo of a sea eagle who chose to join, temporarily, the *highlandrcglidingclub* - aka 'Oh not another hill to climb highland gliding club' Well these aren't fair weather fliers and probably just as well . .



Gordon Taylor and Bran - thanks Adrian

Paolo Severin

Raymond Fella drew my attention to this modeller who builds and kits large models. Nothing remarkable about that until you look at the quality and ambition.



As you see, he's welding up fuselage frames from stainless tubing from 3 - 9mm od with wall thickness from 0.25mm (0.01") upwards.



Aeronca C3

Other models include: Fokker E.1 Eindeker, Piper J3 Cub, Grasshopper, Bucker Jungmeister, Bleriot, and Baby Ace The Fieseler Storch is a work of art!

To be honest, I could fill the pages of the newsletter with photos of these beautiful models/kits, but have a look for yourself:

Tony has the Dope

A number of us have bought dope from John and Pauline of *Flitehook* whilst at Old Warden. Tony Neal understands that the future of this arrangement is uncertain. He has offered to look into buying dope from suppliers in industrial quantities and making it available to IVCMAC members. He needs to gauge how much interest there would be, so if you might be *'in'* then let him know (or email me and I'll forward it to Tony - Ed).

Just for fun



You might like to try and puzzle out what's going on here - remember though, no prizes, it's just for fun.

Linke-Hofmann R.ii

It seems the Linke-Hoffman R.i wasn't a success - something to do with that tricky business of interpreting wind-tunnel data and that chap Reynolds. So the designers came up with a cunning plan (*Bummeln im Windkanal*): build a *bigger* version of a well-proved and efficient single-engine biplane.



So what's remarkable about that? Well, looking more closely, the wheel is 5' and the prop 23'. That's not just one engine but four linked to a common prop shaft.

RR Eagle and Kestrel

I was reading about how RR came to design the Eagle and subsequently the Kestrel when jumping out of the page was, *Lignum-Vitae* which they were using as bearing material in the water pump. Some pre-war composite? - well wood actually. Who would have thought. Very dense and the material of choice for over 100 years, it sinks in water - I know, I've done the experiment!

to scale



http://www.paoloseverin.it/index.html

Electric FF

E36 Electric

(a) Model specification

Maximum projected wing span	
Minimum total weight (ready to fly)	120 g (4.24 oz)
Maximum cells permitted Lithiun	n - 2 cells; Nickel - 6 cells
Any type of motor, gearbox and prop is permitted.	

No timed moving surfaces, apart from dethermalisers, are permitted.

(b) Contests shall be run as follows:

Only 2 models in any one contest are permitted. BMFA Free Flight Rules Effective January 2015 22

2 minute maximum [or less as per rule 3.11.1 (c)]

2 flights to be made with a 15 second motor run. If the maximum is reduced (due to prevailing conditions) the motor run will be 10 seconds.

A 3rd flight to be made with a 10 second motor run. If the maximum is reduced (due to prevailing conditions) the motor run will still be 10 seconds. If all 3 flights score maximums a fly-off will be made with a 5 second motor run (as per rule 3.1.4.3). All motor run timing will be as 3.7.4e (BMFA Electric)

When E36 models are flown in Combined Electric contests the motor run will be 15 seconds for all flights including any fly-off



E-36 might be regarded as an entry level FF competition and there's nothing which isn't familiar to the average club modeller - not that we have any *average* modellers at IVCMAC. Conventional built up wings and tail you'll need to find a small, fast out runner, ESC, 2S LiPo, folding prop and timer.

Mike Woodhouse can supply a short kit complete with plan for a DON DELOCH SUPER PEARL 202E. E36 contest proven design from. Don - pictured above

You can read all about E-36 at: http://www.pearlfreeflight.com/Home_Page.html

Timing: you'll need to control both the motor run and also the DT. Take a look at Texas Timers for the fancy stuff: http://www.texastimers.com/





Some people opt for a radio DT system - you can see the DT servo in the photo above. So there you have it: none of this *buying* your model from eastern Europe before you can compete, it's uncomplicated and very possibly fun.

There's every chance that Chris will tell us a bit more in the September newsletter.

Just one question - where to fly?

F2B or not F2B

A personal view of the NMAS (Nuneaton) Stunt competition, Saturday 2nd. May 2015.

Entrants: Glen Alison, John Benzing, Roy Cherry, Brian Turner (IVC), John Copsey (IVC).

Thanks to the CD: Roy Parker, and Judge: John Bonner.

Decisions, decisions! First of all, is it worth going at all with such a dodgy weather forecast, and if so what are we going to enter. The choices are F2B (FAI standard C/L Stunt Schedule), Class II Stunt (easier than F2B) or Vintage (Schedule for models designed prior to 1952 or 1957 depending on comp). The weather, having decided to stay mostly dry, meant that I would go, and chance the wind strength. So off we trundled with a choice of 2 full fuselage 60 size Stunters and a 1957 Vintage model (just in case).

On arrival it was obvious that there wasn't a huge turnout, in fact only 4 other brave souls looked like actually attaching lines to anything, but there were several other people jumping up and down to keep warm and drinking tea (not at the same time).

The fact that the other 4 intrepid pilots were arguably 4 of the best flyers in the country (including our own Brian Turner) meant that my decision was obvious, It was F2B or nothing. I decided it was a long way to go for nothing, so an F2B baptism of fire it would have to be.

And so to the flying. Because the entries were low, there was time for practice/warm up flights and most flyers had done theirs, I felt pressured to not keep people waiting and pressure means things can go wrong, so they did. The Super Tigre 60 in my 'Strega 'wouldn't start in the cold wind so goodbye warm up flight.

My very first competitive F2B round was upon me and this was flown with my reserve model, an Alan Brickhaus designed 'Legacy' with Stalker 66 (11 c.c.) up front. A nasty blustery turbulent breeze was blowing which always makes life interesting, but we seemed to be managing reasonably well. An early engine cut brought proceedings to a gliding halt after the Horizontal Square Eights, but we survived and scored 399 points. The other 4 contestants had posted lowish (for them) scores of around 850 points. Round 2 proceeded in similar fashion to the first, although I had managed to get the 'Strega' running so I flew that. This time we completed the full F2B Schedule and after landing we had the spectacle of 4 of Britain's C/L Stunt Royalty giving me a standing ovation! This, I assure you, was due to their astonishment at my survival and not because of any particular skill. Still it was nice (535.4 points scored).

Round 3 (argh, there's a round 3?) was similar to the other 2, except that Roy Cherry had an early Motor cut at about 1/3 distance so only scored 102.6 points. Cheekily, this meant I wasn't last in that round. I also improved my scores with a better engine speed and scored 561.8 despite missing 2 manoeuvres. So endeth the first lesson, and the lesson is 'preparation and practice are the are key to success'. Roll on Old Warden.



Scores	Rounds 1, 2 and 3			Best 2	Position	
Brian Turner	871.9	865.3	888.6	1767.7	1	
Glen Alison	883.5	840.3	869.2	1752.7	2	
John Benzing	837.6	888.2	854.3	1742.5	3	
Roy Cherry	839.3	805.7	102.6	1645.0	4	
John Copsey	399.0	535.4	561.8	1097.2	5	
John Consey	May 2015					

Leaving no stone unturned . .

de Havilland's Comet . . the glider variant!

The shape of the nose, including the windscreen, of the Comet was a detail that should be tried out in practice, if possible, to check the effect of rain at the low speeds of approaching to land, also to learn whether the windows, in relation to the pilots, gave a satisfactory view. It so happened that the fuselage diameter of the war-veteran glider, the wooden Airspeed Horsa, hero of Arnhem and other battles, was the same as that of the rear frame of the Comet nose. A mock-up of the proposed Comet cockpit was therefore fitted on to a glider, which, with Cunningham in the left-hand seat, was then unceremoniously towed about the sky in 1946-7 winter in search of elusive rainstorms.



Free Flight Forum

thanks to Mick Staples

Mick has handed over copies of Free Flight Forum - no I didn't know there was such a publication either - from 2004 to 2014 When this newsletter is circulated I hope to attach the index of articles. Too long to include here, but this is what it looks like:

2007 An Indoor Initiation by F1D Taking the Tension Out of Winding - or Does It? Combined Glider - A Truly Inclusive Class ? Rule Changes for UK Free Flight for 2007 A Fish-Bone Press for Your D-Box Open Rubber Rules for 2007 The 50 Gram Open Rubber Mode Gurney Flaps on Free Flight Models Oven Baked Propeller Construction Practical Rubber Testing Rubber Motor Testing for Indoor Duration Models Outboard Horizontal Stabiliser Configuration for Model Aircraft BMFA Rubber Models with a 50 Gram Rubber Allowance Variable Pitch Propellers for Indoor Models The Effect of Stabiliser Sections on Towline Glider Handling

Mark Benns/Nick Aikman Mike Evatt Stuart Darmon BMFA FF Technical Committe Martin Dilly Ron Pollard George Seyfang Dave Greaves Mike Woodhouse Clive King George Seyfang PhilBall Bob Bailey Martin Gregorie

If, when you've looked at the index to articles, there's something you'd like to follow up, then please let me know.

Plasticized dope

Adding to the picture - see May's newsletter - you should add Castor oil to nitrate dope and TCP to butyrate dope. Mike Woodhouse stocks TCP.

Add ten drops of castor oil per ounce of dope - 25g



Footnote

A comment or two from the editor

Just last month I paid my first visit to the FF nats . . of course I wish I'd gone years ago. Not only did I get to see superb models such as this one flown by Andrew Hewitt but had a chance to ask about all manner of building techniques which might,





one day, be applied to my very own DH9a - the one I began building having been inspired by Eric Coates and his FF Scale column in the Aero Modeller . . that would be in the early '70s Fate had a surprise for me because at the noisy end of Mike Smith's 'Elephant' - a model that won him the Eddie Riding Trophy - wasn't just *any* Mills 1.3 but Eric's own . .



Eric's Mills 1.3

Too much mention of full-size or the Great War? - then let me know because unless you do I'll just carry on putting together the newsletter I'd want to be reading!

If you've contributed to this issue of the newsletter in any way, thank you.