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AERO

MODELLER



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Cover: Blue skies and sunshine – the perfect Old Warden Vintage Weekend setting for Doug McHard's magnificent Stinson-Reliant Airliner, a pre-war Megow kit design. This lightweight masterpiece caught everyone's eye with its slow, stately flights across the field. Our Vintage Weekend report begins on p 606

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HANGAR DOORS

Juniors - show now!

Right, you lot - this is a serious question. Here it comes. If the FAI sanction a Junior F/F Championships, should we or should we not take notice? Fact is, as reported in a feature on the last CIAM meeting in Paris (All the Latest, July *Aeromodeller*) the Aero Club of the Polish People's Republic have offered to host such a meeting at Leszno from 6-12th August, 1988. Classes contended will be straight F1A, F1B and F1C with no allowance for youth. Now, we can all look at this and say OK, but the Eastern Europeans will have full teams, ready to pounce, in each class. Of course they will; that's a mark of the status of aeromodelling there. Good for them. Nothing like it can ever happen in this country and if you believe it could - let's hear from you (yes, let's *really* hear from you with your argument). You could even say 'it'll be too expensive'. It probably is. A full entry, covering full board and accommodation, sightseeing and 'numerous gifts and souvenirs' will cost about US \$300. Forget it, eh?

Let's look at it again. Suppose the event, in a sudden rush of blood, had been taken on board

Seven-year old Robert Leeman managed a crafty bit of control-lining at the F/F Nats. Progress has been swift (see *Keep it up!*).



by this country. Who would represent Great Britain? Just three members per team are requested. We can think of a few likely F1A candidates under eighteen years of age (this being the 'junior' criterion), a handful of F1B participants, some of whom we would back highly; but F1C?

Let's blow the trumpet. Fashionable not to, and all that;

but forget wimpish excuses. Here's a copper-bottomed challenge. Can we find a bunch of under-eighteens who could muster competition? Or is aeromodelling in this country really for the middle-aged dabbler who couldn't care less about what happens next year as long as he can buy his goods from the local model shop, until it goes out of business? Try and prove us wrong - and we'll help all we can. And to capable youngsters who think they could succeed; forgive the tub-thumping and tell us why. If the Junior F/F Championships will ever have a British presence we have to sort it out now. Yes, now. The sooner the better.

Gone but not forgotten...

Doug Sheppard is pleased but miserable too. How can this be? you ask. Fact is, Doug brought along his new Jet-X powered MiG 15 to the Nationals, lit it up - and lost it! This trauma took place at the time of the Rubber/CO₂/Electric Scale competition on the Sunday; the mysterious thing is that several onlookers saw the model come to earth but it had apparently vanished by the time the chase party arrived. While delighted by the model's performance Doug would like it back - so if you stumbled across a wayward MiG during your own Nats walkabout, do let us know - or have we now proof of a Barkston Triangle?

Our own Vintage Weekend at Old Warden also meant some models lost. Mr S.J. Harrison of Guildford tells us that his newest model, a F/F Rambler flew beyond all expectations into one of the cornfields. Recognising the model will be easy; the orange and yellow craft has a blue-headed FOK 15 up front. There can't be many of those about now. This Rambler has no identification markings, for (like so many others at Old Warden) the wayward model was finished only the previous evening. Do call us at *Aeromodeller* if you can help.

...and models found...

After Vintage Weekend, that local enthusiast and model-finder *par excellence* Dick Hardwick made a reconnaissance of the surrounding area, concentrating particularly on the infamous Copse where many models had remained festooned at the close of play, including a yellow Simplex and Cliff Billington's Skyrrocket. Immediately recoverable was a 19in. rubber job with polyhedral and



Right: Our major C/L and Scale Nats report will, as last year, appear in the December issue to allow sufficient room for full coverage of a super meeting; but we must find space for this happy shot of Dave Clarkson and Ed Needham after their modified-Moki-powered model had gained a new Open Goodyear British record of 7:36.2. Well done, lads!

twin fins; but nameless. If the owner can describe his model more fully we can arrange its homecoming, so - again - call us at *Aeromodeller*. By the end of the week all but one of the 'treed' models had disappeared, where we know not... Nevertheless, we're aware that 'Shefford retriever' Dick Hardwick, gets several enquiries about AWOL model after each Shuttleworth 'do' so here's notice that this time he has little hope to offer...

All who know Dick will remember that he is actively concerned about safe model flying. Perhaps we can quote from the end of his letter: 'There was some very irresponsible flying going on, by a few people - I don't know how one educates them, I'm sure'.

Neither do we...

M.E. update

Don't forget the 1988 Model Engineer Exhibition at Wembley on 1st-9th January. Advance booking details and competition entry forms are now available from Argus Specialist Exhibitions Ltd at our Wolsey House address. Classes D1 to D7 cater for the aeromodeller as follows:

- D1: Non-scale flying models of all types; F/F, C/L and R/C.
- D2: Scale flying models of all types except radio.
- D3: Scale flying R/C models.
- D4-D6 are for non-flying models of various types.

Of particular interest this year is Class D7 which is for unconventional flying models - and here we quote from the Competitors' Information Handbook - which 'do not conform to the traditional fuselage design of a tractor airscrew, wing and tail surfaces on a central fuselage and which



What's on

18th October
SMAE NORTHERN AREA FAI EVENT
Venue: Driffield F1A, F1B, F1C. Contact:
Dennis Davitt. Tel: 0532 675433

24-25th October
FIRST SMAE F/F TEAM TRIALS
Venue: Barkston Heath F1A, F1B, F1C.
Contact: Phil Ball, 17 Heronswood Drive,
Spondon, Derby. Tel: 0336 665361. Entry
fee is £5 per class

1st November
EAST ANGLIAN WAKEFIELD EVENT
Venue: To be confirmed. 4oz Vintage Wake,
8oz Vintage Wake and pre-51 O/D Wake,
F1B. Contact: Chris Hawke

1st November
SMAE INDOOR SCALE MEETING
Venue: Alumwell Centre, Walsall 9am-5pm.
Competitions for all three classes with an
experimental increased weight limit of 170
grams for CO2/Electric and Open Rubber to
encourage multi-engined subjects. Lots of
trimming time during day with a kit scale
mass launch as a finale. Contact: Doug
Sheppard, 13 Luckington Road, Monks Park,
Bristol, Avon BS7 0UT. Tel: 0272 697595

7-8th November
2ND SMAE F/F TEAM TRIALS
To be confirmed. F1A, F1B, F1C. Provisional
venue: Sculthorpe. Contact: Phil Ball. Tel:
0332 665361.

15th November
FALCONS GALA
Venue: Driffield. O/R, O/P, O/G, Vintage.
Contact: John Carter. Tel: 0782 398816.

22nd November
SMAE F/F TRIALS - RESERVE DATE
Venue: Bottesford or North Luffenham, to
be confirmed. Contact: Phil Ball Tel 0322
665361

1st-9th January 1988
80TH MODEL ENGINEER EXHIBITION
Venue: Wembley New Hall and Conference
Centre. More space, more displays and (it's
up to you!) more model aeroplanes! Open
daily from 10am to 7pm except for late night
opening till 9pm on 7th January and earlier
close of play at 6pm on 9th January. For
more details see Hangar Doors in this issue
and the advertisement panel on p.656. Do
come!

Now's the time to let us have details of
your model flying event. Send all the
advance information as soon as you've
planned it. We'll do the rest. 1987 has been
a great model flying year so go for 1988!

do not otherwise qualify for the other competition classes'.

So how about it, enthusiasts for the unusual?

Time here to mention the trophies to be fought for by model flying enthusiasts at Wembley. The Aeromodeller Cup will go to the best F/F or C/L model in classes D1 and D2; the RCM&E Cup is for the best R/C model in classes D1 and D3; and the Bristol Challenge Cup, donated by the Bristol Aircraft Company will (as ever) be awarded to the best model of a Bristol Aircraft in classes D2, D3 or D4 (this including non-flying entries). There is also the ASP Plans Service Trophy for the best model in any class constructed from an MAP/ASP Plans Service design. Let's see a model aeroplane win it in '88!

For more details see the advertisement in this issue. Full support from DPR Models is expected, so there should be model flying in the Auditorium; and we look forward to energetic participation from SAM 35, the SMAE and others. Naturally, ASP will be there in force with books, mags and plans. Come along and see us at the biggest, brightest, best - and most spacious - M.E. Exhibition yet!

Dividers out - and back

We all know the attractions of Vintage. Tis no more than a microcosm of aeromodelling.

Real designs, balsa, tissue and all that, here again. It's all being going for quite a while now, and the signs are that one way to stamp individualism on a fundamentally highly-constrained discipline is to take a favourite design and go larger or smaller to suit one's own taste. Hence all sorts of miniaturisation and gigantism on show at our last Vintage Weekend; more than ever before, indeed. Great - and we'll be concentrating on this in *Aeromodeller* very soon. How to do it; who's done what; and so on. But the next thing will be the creation of models known in the R/C world as 'Own Design Vintage'. What? Come off it! Build those individual models, give 'em a name and your own, honest tag as designer without the need to hide behind a masquerade. We're ready for you; so if your real, own design is here and ready to go, let's hear about it now!

Keep it up!

Young Robert Leeman from Loughborough, seen in one of our photographs, means business in control-line circles. His Sabre-powered Shimid has been replaced by a mini-Peacemaker built as a birthday present by his 'uncle' Peter Jephcott - a name not unknown in Goodyear racing - which he was merrily looping and bunting by the time of the C/L Nationals.

Jim Woodside describes his as 'a great little lad' - fair comment, we'd say.

Wonder what he'll try next?

Just Junior Jinx

Paul Hoey, designer (or reductor) of our small-size Junior 60 presented as September's full size plan was first to point it out. Second was Peter Valentine, co-enthusiast extraordinaire for enlarged Keil Kraft designs for R/C. Quite obviously to anyone who knows the model, but perhaps less so to others, is the fact that wing rib designations were transposed while we weren't looking. To make amends once and for all; centre-section ribs are flat-bottomed; those for the main panels are undercambered. Dare we say that it might not make much

difference, apart from having to cater for the windshield and cabin area? Vintage heresy!

And for the R/C tyro

New to radio control? Looking for extra guidance? What do you need is the new RCM&E Special! Our Flying Training Course deals specifically with all aspects of learning to fly R/C. Although primarily aimed at the trainee pilot, Flight Training Course is essential reading for all modellers who assist in teaching the basics of flying.

In addition, two aeroplanes have been specifically designed to complement the publication. The Instructor is a high wind basic trainer and the Acrocat a low wing aerobatic trainer - both can use the same .30 to .40 engine.

Articles on selection of engines and radio equipment, understanding plans, almost-ready-to-fly models, trimming, how and where to join a club and where to proceed after training ensure that the Flight Training Course has information and action to appeal to most enthusiasts. It's on sale on 4th December at £1.95. Look out for it!

More fine aeromodelling press coverage. Jim Dyson and his enlarged Elf Biplane were captured by Roger Taylor's camera at Old Warden to appear on page two of the Sunday Telegraph on 16th August. We'll forgive them the hackneyed 'Magnificent men and their models' heading...



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Vintage



there is a bottomless pit of designs still being unearthed by the enthusiasts. Variety certainly is the spice of life and the new shapes do get special attention. Modellers are more and more motivated to find a design that is relatively unknown, and one can only wonder at the enthusiasm that causes so much searching for a 'rara avis' before wood is actually cut. In this respect, when speaking to builders the surprising fact emerged that many models are built specially for this occasion, and also much midnight oil had been burned in the last few days before Vintage weekend; actually a number of enthusiasts admitted that their models had been completed only on the morning of the event, in some cases were unfinished and lacked not only final details, but also essentials like landing gear!

The excellence of construction of vintage models improves from year to year and illustrates the great care (and one could add affection) that is lavished on these designs from yesteryear. Most of the vintage models seen were of what would have been referred to only a few years ago as 'exhibition standard'.

With such a festival of old time model flying it is impossible to see everything that is going on. I have found this frustrating at lesser-attended functions, but at this meeting, especially on the Sunday when the numbers were over twice that of Saturday's figure, my frustration gave way to a resignation that even if I could note and photograph all the action there would not be enough space to report it in a book-length Vintage Corner. Yet, only a few years ago (it seems like yesterday) there were some amongst us who prophesied that Vintage was a flash in the pan that could not possibly catch on!

The real McCoy

If you see vintage models doing impossible things it is a good bet that they are radio controlled! This was again apparent when one saw a number of familiar shapes in non-vintage poses. Some were driven around like normal R/C

15/16th August was sunny and warm - ideal for our Vintage Weekend at Old Warden. Over to merry reporters, starting with Alex Imrie

HAVING DECIDED to get to Old Warden really early this year in order to gain a parking place next to the wire fence, I arrived at 10:30 to find that there were already ten rows of cars extending the full width of the parking area. Some modellers had actually turned up on the Friday evening and had already been flying before the great day dawned; so it was obvious that this would be a record attendance for any Old Warden weekend function, helped one is bound to say by the unexpected change in the weather. Unbelievably, after days of wind and rain, the weather man gave us the ingredient most needed to make Vintage Weekend a success, and the sun shone as if it really meant it!

There has always been an international atmosphere at Old Warden and this year it was highlighted by strong German (SAM 85) and American contingents, with a number of Swedish modellers proudly flying their flag in the model compound) as well as enthusiasts from Belgium, Australia and Holland. Expatriots from South Africa and the Persian Gulf (and doubtless others from more obscure places) were there to swell the ranks.

Not only were there personalities from foreign parts but model designs from abroad were immediately evident since their unusual lines were strange to eyes long-accustomed to the well known British and American models usually seen. It should not be thought that all the foreign models were built by overseas visitors. One of the most beautiful power models was Il Moar 43, an Italian vision finished in the national colours of

green, red and white built by Brian Gowland of Altrincham. The description in SAM 35 Yearbook No 3 by Roberto Marzoli included a small three-view drawing with dimensions of the main components and the essentials for construction, but Brian was fortunate to work from a larger scale drawing that he had obtained from Ben Buckle. The original model was designed in 1943 by Arve Mozzarini and was Brown Junior powered. Brian used an Orwick 64 ignition engine and fashioned Il Moar 43's gracious curves mainly from spruce and used 1943 vintage plywood, covered in tissue with a Chinese silk overlay. This was quite the most outstanding model to grace the Old Warden scene for some time. Tail unit controls were unusual in that the rudder was fixed and an asymmetric elevator was used for turning. Linkages were completely hidden in this fine R/C model. Another beauty, also foreign in original was the blue and white Lledramp Flash made from a 1937 magazine article, possibly Swedish, and originally powered by a flash steam plant. The novel hinged cabin top was obviously necessary to gain access to the blowlamp and boiler; now it provides easy supervision of radio control equipment in this OS40 four-stroke powered version built by Pat Mardell.

Seeing these two models was only a foretaste of things to come. This meeting must surely rank as outstanding in that the amount of 'new' vintage designs numbered in my personal experience around fifty models. It seems that



*Leading: Brian Gowland's fine Il Moar 43, Orwick 64 powered for R/C assist was one of the stars of the meeting.
Above left: The Powerhouse is as popular*

Extravaganza

models which greatly detracts from the appeal of these old model designs. Just why the pilots don't let the models do the flying and merely steer them back to the landing area I don't know. To see high performance free flight competition models making fast low passes instead of climbing vertically into the sky where they belong is not only disappointing but shows a lack of appreciation by the handling flyers. There were, of course, some competition models without R/C. These included Claude McCollough's 56in. Toreador, described in the Ian Allan Model Aviation Series Planbook in 1949, which was finely reproduced by Derek Ridley. Finished in red nylon with black and silver striped decorations the model carried Claude's original AMA number 184 on its wings. Power was provided by a glow Frog 500. Another such model was Doug Scott's Alert, designed by Michael Latorre and described in the December 1942 Air Trails, which was powered by a Forster 29 ignition engine. Doug also had a front rotary Ohlsson 23 Banshee with him and having only recently commented in Vintage Corner about flying such models as these in the appropriate manner, it was a delight to witness this model in the air. Doug is a TriStar flight engineer with Gulf Air, but always makes sure that home leave covers Vintage Weekend. After a short trimming flight on low power, he opened up the engine. As the Banshee spiralled into the blue and drifted downwind pursued by Doug it became apparent that the model's progress was not being arrested by any timer operation. In fact in the heat of the moment he had forgotten to set it! The sight and sound of that Banshee going up in the Leon Shulman manner, was, for me, a high point of the whole weekend. The model was lost despite another search of likely fields towards Biggleswade, but help was to come from an unexpected source...

Another model that flew in the proper manner was the 1/2A glow powered Playboy flown by one of our American visitors, George Armstead. It really nipped upstairs and showed us the performance potential of this keenly competitive class of vintage model so popular in USA.

Rare and not so rare types

The German modellers, who now have their own SAM Chapter, fielded a number of unusual models. Yet to fly was the distinctive Leipziger Flügel by Friedhelm Mink, a canard fuselage sailplane with the feature of downturned wing tips that were hallmarks of the glider enthusiasts in the Leipzig area in the mid-1930s. One of the supporters of this layout designed to overcome lateral stability problems in severe gusty wind conditions was Otto Klank, the designer of this model, whose book on the subject on the advantages of this wing form is still avidly read by model enthusiasts. Additionally SAM 85 fielded Brummer, a conventional high wing cabin model designed by Wilhelm Haas and built by Wolfgang Sörgel; a number of Gnom (Germany's Ajax), one of which was Modella CO powered; while Herbert Bayer from Nurnberg had a replica of his first power model, a strut-braced low-wing monoplane that he built originally in this country in 1949 while serving a three year apprenticeship in Rochdale! Most of the German models were built in their traditional hardwood style, with plywood ribs and so on.

Quite beautiful was the red Bowden Humming Bird by Denis Heath of Dunstable. Not only did Dennis do an expert job on the model which flew delightfully, he also made the engine, a .3cc Topsy diesel himself and showed that his metal work was of the same high standard as his wood and fabric. Another fine example (finished on Saturday morning) was the blue and white KK Bandit powered by a Mills 1.3cc Mk1 by Jerry Evans of Cumbria, who had modified the design to incorporate a two-piece wing so the whole model would fit into a model box of modest proportions. Cliff Billington of Birkenhead was flying the 5ft. Gas Model designed by Don Donahue from plans in the 1937 Frank Zaic Yearbook. This was ED Mk III powered and had a unique method of mounting the small graduated transparent tank, which was hung on the exterior of the nicely moulded fibreglass cowling by means of a clip-on strap that

extended around the nose. Charlie Havis brought along his excellent Bowden Trophy Winner of 1946 designed by Alec Wilson of Hayes, a model of which Dr Forster wrote in his final Petrol Topics (November 1946) 'a beautifully made, stable flying machine'. Charlie's model, finished in green and black had the cockpit opening faired over, used streamline aluminium tube wing struts and was powered by a PAW 29 carried in a lovely hand beaten aluminium cowling.

Despite the appeal on the public address system that models should be placed in the compound for all to see, many fine models spent their time in sweltering car boots. One such was Tony Turner's HE White designed Dryad rubber driven flying boat (described in February 1946 *Aeromodeller*) which was another model finished in the early hours of 16th August. Tony recounted how many essentials are missing from plans, and in the case of Dryad, no centre of gravity position is given; nor is there information as to whether or not propellers of opposite rotation should be used to counter torque, but Tony says this is an aeromodeler's design; and it seemed a pity to cover the hull structure in tissue, thus hiding the intricate, delicate assembly of formers and stringers.

There was an abundance of tailless models which were initially displayed on the aerodrome signal area (which was marked with the yellow cross on a red ground to tell full-size pilots that the field was closed to them) in preparation for judging the Howard Boys Memorial Trophy. Many and varied were the types seen here but one in particular caught my eye; an all yellow RFLG 53 which was Bob Gosling's design that held the British HL and Towline records in 1940. This was a lovely example by John Coolen of Southgate. Simon Rogers (as was to be expected) brought a whole bundle of models. He was trimming his Astral Short Stirling, a four engined HJ Towner rubber wartime design, when I ran him to ground, but found time to confirm that his Schwinguin did



a choice as ever. Peter Scott's purrs happily as it's carried to the flight line. Centre: This smart twice-size KK Southerner by Tony Froggatt awaits



preparation - flew well. Top right: There are always interesting motors to be seen at Vintage Weekend. Gordon Williams' not quite-ready-yet nine-cylinder radial



aroused much interest. Below right: This Sizer-designed flying boat makes an impressive structure. Motor sticks mean that adequate rubber may be carried.



where it was planned to give the engine a demonstration run. In the event attempts to coax the old Brown into life met with no success and aside from a few muffled pops B290 refused to sing that characteristic song of power that is unmistakably a product of Junior Motors. This engine must have been one of the earliest of this type in this country. Others of similar vintage imported during 1934 were used by early power modellers like CE Bowden.

The John Haggart Memorial Trophy

The recent rule adopted by ASP that free flight ROGs should not be allowed at spectator attended events in the interest of public safety was brought about in the main by the difficulty that large models seemed to have in getting airborne, and in the event this was extended to include all free flight models. I was personally sorry to see this essential requirement for a precision competition banned, since it was so much a part of the game, also the ability to have a model run straight and true for take-off really sorted out the men from the boys! This restriction would seemingly prevent the holding of this competition at Old Warden; thus no preparation for it was made until a last minute decision was taken to run the event from hand launches.

Surprisingly, at short notice sixteen entries were obtained from free flight power enthusiasts out on the field. It was decided that each entrant would set his own target by the length of his first flight and aim to make another two flights of the same duration. The majority of models entered, being diesel-powered, were flown on fuel measurement and this is only an approximate method of timing at best, yet in the end the winner's model was adjusted in this way. Models fielded included a Keil Kraft Rover, Kanga Kub, Premier Lion, Ladybird Special, Keil Kraft Bandit, Miss Philadelphia, Wren, Wasp, Cloud Airmaster, Miss Farnboro', Hep Cat and Simplex; however, because of technical problems (mostly the result of crash damage from previous flights) the Kanga Kub, Hep Cat and Miss Philadelphia were scratched.

As the rounds were run off, three entrants tied for first place, with only a three-second error in their durations. A fly-off eradicated Tony Penhall (Airmaster) and Chris Goodley (Miss Farnboro') and resulted in four consistent flights of 18, 21, 17 and 18 seconds respectively by young Cliff Smith of Peakirk near

Above: Plans for this 'one-and-a-half-times' enlarged Ethereal Lady by Vic Sinclair were the result of much work at the office copier! Sunny colour scheme of white, blue and yellow suited the Weekend perfectly. Below left: Des Jones' Gladiator was another enlarged subject - a fashionable approach this year. Red, white and black beauty flew as well as it looked. Below right: Brian Hall's crisp C/L Skyfarer delighted designer Ray Malmstrom (yes, we know it's not quite Vintage...).

not use broom bristles (they are plastic nowadays anyway) but split bamboo from straight grained meat skewers obtainable in bundles from any store, a good source of select bamboo for small models.

There is insufficient space to relate more tales of all the models seen or modellers spoken to, but here are a number of names that helps to bring something of that delightful weekend back ... Grosser Winkler, Worcraft Scarab, Polliwog, Rigby Swallow, Goosey Gander, Bucks Duck, Black Bullet, Dusty VIII, Ehling GE Cabinette, Scientific Firefly, Bowden Satellite, Baby Blue Dragon, Yankee, Greenland Puss Moth, Spectre, Evans Clipper, Stanzel Tiger Shark, President, Warring's Lightweight, Frog Firefly, Mixmaster....

Historic models

Unfortunately not many participants were able to see two genuine pre-war power models that have been painstakingly restored to flying condition. The first has occupied two years of work by Alwyn Greenhalgh, the Honorary Historian of the SMAE; this was the original Blue Dragon, a machine made famous by C E Bowden who not only designed and built it, but also flew it extensively in the 1930s and created British records with it. The model was under wraps when I saw it but was later assembled and its carefully restored Atom Minor engine given a demonstration run. It is hoped that an article detailing this machine will appear in due course. The design has been well reproduced in the past by some enthusiasts in various sizes, possibly the smallest being Trevor Jones' CO, powered version. Although the outline has been pretty well captured when one considers that the original published plans and description of this machine were almost caricatures, totally accurate drawings could result if Alwyn puts the original on paper.

The other machine was the Nash Petrol Monoplane from 1937. Young Bert Nash was a member of TMAC (The Model Aircraft Club) and flying with people like AT Willis and RJ Trevithick on Wimbledon Common he must have had dreams of owing one of the petrol engines that were then coming into use for powering models. Talk about a dream come true... one day in 1936 a large Daimler car drew up next to the flying site and a Mr EN Bray gave Bert a slim wooden box measuring nine inches by six. Inside was a brand new, shiny Brown Junior Model B bearing the serial number B290. One can only imagine Bert's feelings towards this kind benefactor. I am sure that he must have pinched himself many times to see if he was still dreaming! A model was built based on the Willis Skyrover layout (originally having a wire tail unit but this later reverted to normal construction) and flown a number of times, the last occasion being near Bognor shortly before the war when the model flew out to sea returning by good luck to alight on the seashore. With the outbreak of war the machine went into the loft where it languished until the early summer of this year when its presence was discovered by Derek Bird of the Three Kings Control Line Club and permission was obtained to restore the model for Vintage Weekend. Peter Michel undertook this task and initially tried to retain the original covering, but this was not possible so after structural renovation the model was covered in wartime parachute silk, a panel of which was made available by David Baker. Not wishing to apply a present day finish, Peter found a few dusty tins of Keil Kraft silver dope with Avicraft of Bromley and applied the brushed finish to recapture the original appearance. The Brown Junior was checked over by Keith Harris who found that the motor ran well on the original electrics, and the result of these labours was brought to Old Warden



Peterborough, who flew a much-used Simplex without its landing gear. The most popular model was the reduced size Simplex from Aeromodeller plans (four entries) while the most impressive flying was done by Chris Goodley's Stentor powered Miss Farnboro' which was pipped at the post by only two seconds by the winner - well done Cliff!

Flying discipline

The practice of 'camping' anywhere on the aerodrome should not be encouraged. All bases should be in strictly defined areas; this would prevent at least unnatural obstructions, designed it would seem, to reduce even the best built model to its basic parts, quite apart from the risk to campers' life and limb.

The number of free fliers on the Sunday was surely a record for any vintage day at this meeting. Despite the large number of participants it was noticeable how the concentration of 'base camps' along the edge of the woods and aerodrome boundary fence greatly reduced the number of hits. Here modellers actually walked out onto the aerodrome before launching and a much better flying discipline prevailed than on the previous, lesser-attended day. Then modellers had taken root all over the free flight area and made little effort to keep to the proximity of the boundary hedge. Enthusiasts arose from their pre-flight preparations to hurl their creations into the air in the middle of a densely-populated area. Of course there were incidents that only luck prevented from being more serious. I was hit three times on the Saturday, once by a Stahl Skua which knocked a lens out of my spectacles...

Lack of space is not the only culprit. Better discipline must be enforced and free flight modellers of all denominations should take a little more exercise, walk out into the aerodrome before launching; the more potent your missile, and the less well trimmed it is means a longer walk. We have a lot to learn from the R/C flyers... goofers are kept off their flying area, no model boxes and associated impedimenta like aluminium chairs are there either, and their models are steerable (they claim). What chance have we got with unpredictable flight patterns operating in an obstructed space that is akin to certain parts of our countryside early in the war that were littered with obstacles like old buses, farm machinery and wooden poles to discourage enemy troop-carrying glider landings?

Retrieval par excellence

Those of you who think that the age of compassion is past - listen to this; it will, if anything can, restore your faith in your fellow man.

When, as recounted earlier, Doug Scott's Banshee flew away, he searched again for it without success. Later in the evening he related his story to Maurice Brett who was about to go up in the Jackaroo on an air test. Maurice promised to have a look in the area indicated, and when he came down was able to report that he had found the model about 100 yards into an adjoining field. Doug set off to collect while the Jackaroo took-off again and orbited over the model doing low diving passes to home Doug onto it. Doug found the model but it was not his! It was a nicely built DC diesel powered Rambler without the owner's name and address (so if you lost your Rambler, contact the Aerodrome Shop where, if you can identify it as yours, the model can be collected).

Doug was one of the band of campers who used the caravan site, and next morning he went across to the aerodrome and told the story of his missing model to the crew of a two-seat microlight about to go up on a training sortie - but on landing they had nothing to report. It was at this juncture that 'Biggles' arrived on the scene having just landed in a very-much-used microlight. This gentleman was in his mid-70s, wearing flying gear that told of long hours in the sky. Doug swears that his tattered leather flying helmet was of 1917 pattern. The newcomer listened to Doug's tale of woe, after which Doug had to think of packing up to go home. Before leaving the caravan site, which is completely

surrounded by trees and of quite small area, the occupant of the only other remaining caravan did some circuits around the site amongst the trees with his small R/C model, saying that it had always been his ambition to fly there!

Eventually Doug pulled out onto the road with his caravan on tow and his family on board. He had hardly gone 100 yards when a car passed him in the opposite direction. He thought that he recognised the shape of a Banshee tailplane in the car, so he pulled up and ran back to the aerodrome entrance in time to see his model being borne into the Aerodrome Shop. 'Biggles' (his real name is Chalkie White) had gone up after listening to Doug, had spotted the model and on return to Old Warden approached a foreign visitor and asked him to drive him down the road a little. The visitor entered into the spirit of the occasion, left his invalid wife and two children drinking tea, and drove Chalkie out to the field. It was their return that Doug had witnessed. The model was completely undamaged. Even the battery was still fully charged and the timer set at eight seconds, had not been activated. Thank goodness there are still helpful people around like those mentioned - we would like to thank them all for the parts they played in what must be one of the strangest model retrievals at Old Warden. Of course, Doug thanked Chalkie in a manner appropriate to an aged aviator who has a hungry microlight to feed, but still finds it difficult to believe that all this really happened. Truth is stranger than fiction, but for Doug there was nothing fictional about that Biggles!

Vintage Rubber: Over to Mike Kemp

Not surprisingly, the Saturday of Vintage Weekend is less crowded than the Sunday and as there are no rubber events on the timetable the day has taken on its own character with many using it for some serious flying and trimming for the following day's events.

The American visitors arrived early and quickly got down to business with a wide variety of models, some of which had been constructed whilst they were over here. The standard of construction was in most cases exceptional and Dick Thompson's 1937 Fillon Wake (APSD1218) and 1938 Cahill Clodhopper (APS D1188), the latter in the original red and yellow finish, drew many admirers. He also had another red vintage Wakefield that is unknown on these shores. It was Bob Reich's model that won the 1940 Moffet Trials Eliminations. The interesting feature of this model is that the fuselage cross section is rectangular at the nose, changing to trapezoidal at the wing mount position and then tapering to triangular at the motor peg. The model had a beautifully silver coated double-bladed folding propeller. Compatriots Mik Mikkelsen and Tom McCoy were trimming their A Frame pusher and Lanzo Duplex respectively and achieved some



Top: Activity in all directions during preparation for the Skua commemorative event. Can you spot old Vintage Corner himself? Below that: Birthday boy Ron Hill celebrated his 80th on the Sunday. His Fillon's Champ, a fine performer, made everyone stop and look. R/C gliders had their own demonstration slot - more of this anon. Third down: Superbly-finished Class A size Wrangler by Rob Millinship is Oliver Tiger powered. Fourth down: A trio by David Deadman. The OS four-stroke in the Cavalier bit him badly causing the loss of a fingertip. Ouch! Right: Cheers! Alwyn Greenhalgh fuels up the Atom Minor in the newly-restored original Bowden Blue Dragon. Metal can and funnel are a nice touch.

good flights. Other 'unknown' models flown by the visitors included 'Joe McCoy's Dietrich's Class C Convertible (1935/6) and Cassano's 1941 Championship stick model.

A new trend was also detected this year - the emergence of several double-size Earl Stahl scale models. Don Knight had his doubled Magister flying well and this was joined by Mike Hetherington's doubled Spitfire. Not to be outdone, Mik Mikkleson had brought along his enlarged Me109. It will be interesting to see whether larger rubber scale models take off (sorry!).

Mike Hetherington's Twin Gull Wakefield (APS D201) suffered an unfortunate flight. This model was designed by the late Rupert Moore and is a very unusual design employing twin pusher props and the Moore patent drive. The model was climbing away nicely when it dropped a wing and went in. Though the damage was not too severe, it could not be repaired in time for Sunday's Rupert Moore event.

There were a few biplanes flying. Among the best was Lindsey Smith's Ladybird (APS D287).

Vintage Wakes always form part of Vintage Weekend and several were being trimmed particularly for climb performance with Sunday's mass launch in mind. Ramon Albon's Zombie (D316), Voodoo and Mayfly were put through their paces and Mark Hinton (the 1987 Warwick 80z Anniversary winner) was similarly occupied with his Yankee IV. However, the 40z. winner, Fred Chapman was taking things easy, concentrating on his Senator and Obechi rubber lightweights. Wakefield Streamliners are always good to look at and this year there was a rare one to see. Gerry Johnson had decided earlier this year to build G.W.W. Harris' GH91 design. After some initial troubles he got the model airborne and some good flights resulted.

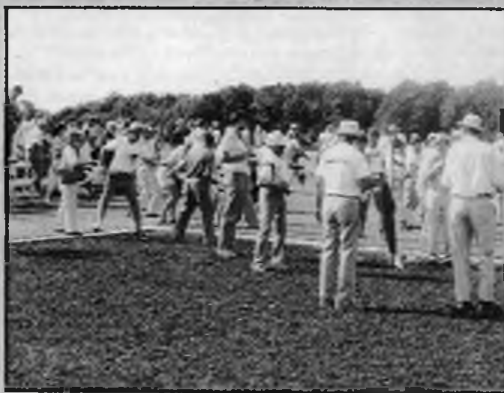
The old Keil Kraft rubber models are still very popular. Favourite was probably the Senator, many of them flying very well. Gipsie's and Competitors were also well-favoured and one could see groups of flyers with a brace of such models really enjoying themselves. George Spain, Tony Gleaves, and Fred, Tony and Jonathan Taylor for example. They also had other models such as the 1950 M.S. Midge (a low-wing sheet fuselage model that really flies) and a Veron Goblin and Bazooka (APS D348).

They are always models that fall in the immaculate category and this year was no exception. Best of all were those owned by Brian Oliver. His Puss Moth with gears in the front took pride of place.

A regular Old Warden visitor from Scotland is Sebastian Robinson. This year he brought a boxful of models, all of which were flown. I spotted Ted Evans' Clipper, Harrison's Pegasus Canard (U396), a Senator and Ed Lamb's Hi Climber. Mentioning Ted Evans reminds me that Terry Brown had both a Vantage and Jaguar flying, the former going particularly well.

Reg Parham persisted with his A Frame pusher in spite of last year's accident when the

Rambo's model! Yes - the winning model in Old Time Stunt, this Curtiss Scout flown by Tom Jolley, was designed in 1949 by one N.H. Rambo. Boater and Vintage Weekend rosette give Tom a rather more lighthearted appearance (nearly said 'less macho'!).



Vintage Wakes in various stages of readiness amidst a flurry of activity as the countdown to the Mass Launch approaches zero.



elevator caught fire! He got it flying well, ready for Sunday's Mass launch.

A sad tale to end Saturday's report - Dave Wotton decided on his return to aeromodelling to build a Dusty VIII Wake (D233). He also found some old Pirelli rubber at home which he had carefully stored and thought that Pirelli improves with age like wine. He found to his cost that it didn't and a smashed fuselage was the result. Undeterred, he means to carry on and has bought some FAI rubber...

A good number of SAM 35 rubber events were scheduled for Sunday and it was soon apparent that with the good weather and the rapidly filling car park we were going to have a good day. Due to the restricted space at O.W. events have to be run for models that have a relatively low performance such as the small kit and scale models, but there was plenty of lift around the cornfields at the western end received a good number of flyaway models; and many were lost.

There were some highlights of the fun-fly activity that are worthy of mention. To confirm that double-size models are the latest trend a double size Victoria Parker was seen. This model, originally featured in the August 1986 *Aeromodeller*, was constructed by Colin Frith. Its all-silver finish was an eye-catcher. With a 24in. diameter prop and 16 strands of 1/4 FAI rubber, it is no longer the real charmer (as Vic Smeed described it) but a real handful!

The most unorthodox Wakefield seen was Spencer Willis' Mixmaster 150, a Pusher Wakefield by Helmut Meyer of Germany. This was described in the 1950 A.M. Annual. The model was flying quite well by the end of the day but the biggest problem, Spencer informs us, is having to work out which side of the nose the packing goes if you want to give right turn. The prop was carved so that the motor could be wound in the same direction as conventional models.

The Rupert Moore Event

This event was not well supported with only two entries, both flying Jackdaws. The extension of the class to include any Rupert Moore design has not increased interest. This should not detract from the performance from Phil Siddall who managed only 1% error in this precision event, thus beating Don Knight. Something will have to be done to stimulate more entries next year. Since Vintage day seems to be bringing forth more double-size scale designs, perhaps this event could be opened up to include any rubber scale model greater than 30in. span. Rupert Moore was an ardent scale fan and I'm sure that this extension would be in the right spirit. Any other ideas?

The C.A. Rippon Trophy

This event is for Rip's delightful monoplane, the Cruiser Pup in all its variants. Three flights were allowed, the best to count.

There were nine entries. Very early on Chris Strachan (with his first flight) managed 99

seconds and from then on didn't bother with any more! Other competitors were struggling to make one minute; Mike Hetherington came nearest with 53secs.

The Achilles event

Organiser Alan Wiggs kept to last year's successful formula of promoting both senior (open) and junior classes. Four junior entries were received and a fairly close contest resulted with Mitchell Cooper just beating David Toyer.

A couple of years ago, a minute's duration was considered good in the Open class. With 25 entries and a max of 90 secs, it was not surprising to find that many got lost in the cornfields; and six maxes were recorded this year. Such is progress.

Adam Beales convincingly won, finding good air on his first and last flights.

Wakefield Mass Launch

This popular event had even more entries this year, swelled by our American visitors to a record thirty-eight in all.

The launch took place near the main car park this year and judging by the eager crowd that gathered, great things were expected. Designs varied from the popular Gipsy and Korda Wakes to a Danish Christiansen Wake flown by George Stephenson, a Landegren special geared Wake of Swedish design flown by Peter Michel and a Capon Krusader by Rex Oldridge.

There appeared to be no winding accidents and as the five minute final countdown took place, some good air arrived and at launch there was a burst of models shooting skywards. This unique sight had the spectators cheering and clapping wildly and luckily this year there were only two collisions, neither resulting in a crash. Meanwhile Chris Strachan's Yankee IV, fitted with a 16 strand motor for the occasion was zooming upwards followed by Peter Michel's return gear Landegren Special.

At the forty-second 'decision time', Chris' prop had folded and he was judged to be just higher than Pete but the Landegren was to continue upwards, the geared motor coming into its own. Chris was thus the winner of the Chobham Trophy, whilst Peter lost his model. (A couple of days later he received a phone call to say that the model had been rescued from the jaws of a combine harvester).

A-Frame Pusher Mass Launch

The mass launch was graced again this year by the presence of Danny Sheelds who acted as helper for Dave Baker and his Burnham A Frame. 940 turns were wound on each motor; and others, it was rumoured were getting 1000 turns. A group of three Americans were sharing one wonder but at the end of the five-minute countdown, all eleven competitors had managed to get their turns wound on, and all got away at



Left: In this happy group are Ron Raddon, Danny Sheelds and Jim Adams (US SAM Speaks editor). Unusual to see a Houlberg-designed Isis with American decoration. Centre: Bob Arnold and John Perry with 'original' and



'1952' version of Bob's Old Sarum stunter. Right: One of many winners - Dave Whitehouse receives the Keil Trophy from Ron Moulton.

launch. They didn't all go the same way though, some flying downwind whilst at least two went straight ahead and then turned above the car park. This year the judges were downwind to deciding that Peter Michel's Kummer had just time. All A-Frames look the same! They had to wait to see who retrieved each model before deciding that Peter Michel's Krummer had just pipped Dave's Burnham.

Danny was seen commiserating with Dave afterwards and muttering words like 'It's my fault, we should have wound on 1000 turns...' Maybe Danny will be back next year to win back his own trophy!

Earl Stahl event

Over to John Lawson:

The concept of group launches for these rubber powered scale models again proved to have considerable spectator appeal. It would be nice to think that some potential modellers are attracted to the hobby by this event. The International competitors themselves demonstrated quite vividly how well these models can fly. What may not be so apparent is the sheer technical difficulty of achieving a successful consistent trim leading to a reliable and repeatable performance.

Doc John Martin, that well-known Indoor modeller from the USA, flew a Hellcat that set new standards and turned the contest on its head. The cognoscenti commented that they had examined the Hellcat design, but rejected it as uncompetitive with its minimal wing area and huge radial engine. Doc Martin's approach was to build it like an Indoor model with 4lb wood, and trim it for power on only. It even spiralled in when the power ran out. In this form, this model is capable of other 55 seconds every flight and it consistently left the boundary of Old Warden airfield.

The Magister scourge did not arise. Its ten-second handicap may not be justified. The result listing speaks for itself but times would have been even better if a gusty wind coupled with the tree hazard had not resulted in model damage and retirements, which was a pity. It was nice to see some Curtiss Scouts competing and doing well as that design is a personal favourite.

The lesson seems to be that all Earl Stahl designs are competitive if built light enough!

Blackburn Skua special event

The notion behind this event (reports organiser Pete Spence) was the dual realisation that the plan of a 26in. rubber-powered Skua by Earl Stahl, from the June '42 MAN was available through SAM 35- and that 1987 was 50 years on from the first flight of the Skua prototype K5178.

It was thus pleasing that twenty Skuas were entered, including five from the American contingent, but the novelty of Carrier Deck take-

offs as originally scheduled was scrubbed because of the strong breeze. All models were land-launched...

Each entrant received an engraved brass/mahogany memento bearing, as did also the Plaques and Crystal awards, the 'events logo'. In addition to the above there was a combined Ladies/Junior category, but there weren't any entries!

This event was sponsored by British Aerospace, Brough to whom we send our thanks.

Gaseous goings-on

The boys from Chart held their Vintage F/FCO₂ event in the middle of the field. Of 21 entries seventeen flew. The breeze made flying a little difficult at times, but many creditable flights were witnessed. No one recorded the 1:30 max although a few flyers came very close. The biggest problem was the downwind crops which

Radio Modeller editor Alec Gee celebrated the weekend by testing this smart Veron Cardinal. Over-excitability at launch resulted in savage prop gashes (insert). Fierce, these Merlins!



made competitors ultra-cautious not to overdo things. Models that impressed during the event were Ken Bates' splendid Scram which eventually finished third after a fly-off for this position with Stuart Rose's Viking, which was equipped with a 7in. prop. But it was Paul McMahon flying a superbly trimmed Thermal Thumber (another with 7in. Peck prop) neatly finished in blue and yellow tissue, who took the honours in a very close contest. Special mention should go to Paul Harrison who finished second after hasty repairs to his Rambler's totally shattered wing after it had collided with a deckchair.

Old Time Stunt Ron Prentice reports:

This was the first competition run by new SAM 35 control-line competition secretary John Perry. All went as smoothly as well-oiled clockwork. At the appointed time the three judges, Messrs. H.J. Nicholls, Bob Arnold and Mick Taylor took their places and flying commenced.

After a ballot for the flying order, the first to fly was John Perry himself. John was flying a new model designed by one of the judges in 1950! This five-footer, powered by a Fox Eagle, was designed by Bob Arnold and is now named The Old Sarum Stunter after the airfield at which it had its flight trials in 1950. Following a good start, John flew the schedule in his usual smooth, slow style on eighty-foot lines.

Following John was Tom Jolley flying a Fox-powered Curtiss Swift, a design by NH Rambo

which was published in the May 1950 issue of Model Airplane News. Tom's first-round flight showed signs of the old flair he possessed when he won the Gold Trophy some years back, and in spite of some rusty patches, he put in an excellent performance.

Peter Michel, known mainly for his free flight rubber models, brought along a nicely made APS Calamity Jane, complete with powerful OS.35 FP which started very easily and sounded good. However, lack of practice showed in several manoeuvres and his fuel ran out before he could complete the square loops, forcing an early landing.

Brian Waterland flew his Devil Bat once again. This Laurie Glover design has proved a steady and reliable flyer. Brian flew a smooth schedule, but a touch of rustiness or perhaps nerves affected some of the pattern.

Ron Prentice decided to fly his de Bolt Stuntwagon again this year. Following a season in which it was powered by a Merco 49, Ron had re-engined it with the Merco 61. This proved to be his undoing in the first round, because remembering that it was necessary to remove 10cc of fuel from the tank to avoid an over-run last year, he did the same thing on this flight, resulting in a premature engine cut after the horizontal eights which lost him a lot of points.

SAM 35 Chairman Gordon Counsell was next to take the handle. Flying a Ringmaster, he completed the pattern but showed a definite lack of practice in most manoeuvres.

Mike Rolls who is John Perry's long time flying 'buddy' brought out his Veco Chief again this year. This well-known design by Bob Palmer is eligible for SAM contests in its original form with reflex (cuspid or Pollywog) airfoil section. Later Veco and Dumas kits are not allowed. Following a good clean start and take-off his vertical climb and dive were a bit shaky; his loops looked rather large but were nicely placed. The remainder of the schedule was well placed, the Chief seeming to fly very slowly and quietly. A very smooth landing followed a long over-run.

Next to take the circle were two Days - Dave Day was the first with the same Elfin 2.49 powered Ambassador which he flew in the SMAE Vintage event at last year's Nats. In comparison with the previous entrants this nicely finished red and black model looked very

small and fast. Dave started with some neat flying; good climbs, dives and wing-over. Unfortunately the Elfin started misfiring during the loops and then showed signs of over-compression during the inverted laps but it continued to run, actually permitting a very smooth landing, which is unusual for this type of model. The other Day, Ken of that ilk, flew a Bob Tucker Hot Rock (OS.30). He flew a steady schedule, but some patterns were rather erratic. He suffered a long over-run followed by a rather bumpy landing.

All the way from Wales, Laurie Glover flew his Devil Bug. This 410sq. inch model of unusual layout without a fin was a follow-up design to his better-known Devil Bat. A fast start was followed by a nice take-off. All his patterns were adequate, with nice vertical eights. He forgot to do the inverted laps in sequence and tacked them on the end in the hope that the judges would have pity on him. Unfortunately the fuel ran out and he landed upside down with rather a thump. Gordon Counsell was heard to remark 'I don't think he'll get many points for his landing'. Steve Blake was persuaded to take part at the last minute by Mike Rolls, who loaned him his Fox 25-powered Magician. In spite of not having flown for twelve months, and with an unfamiliar model, Steve put in an excellent schedule.

The final contestants in the first round were Pete Iliffe who flew very nicely, and Ian Horne. Ian flew an APS Crackerjack (AM25) with an allegedly drop off U/C but after the 'off', it took one-and-a-half laps for the undercart to 'do its thing'. The AM 25 sounded very good indeed, but the model did not match up to expectations. It appeared to stagger through manoeuvres and at one point nearly hit the ground, causing the spectators to gasp. Ian appeared to be having distinct problems flying the model but he didn't give up, and attempted all the schedule.

After a lunch break the second round started with the same order of flying. John Perry's model looked very impressive. There is no doubt that the large models are more imposing in the air. At the end of the schedule, we were treated to a display of 'modern' manoeuvres, which just goes to show that some of the vintage models can do it almost as well as their modern counterparts. Peter Michel's second flight was, on the whole, better than the first, but was

marred by an unfortunate nose-over on landing. Tom Jolley's second round flight was also better than the first, with very smooth and careful patterns. In his second round flight Brian Waterland performed erratically, doing some rather shaky patterns, but completed the schedule without any perceptible errors.

His lesson learned, Ron Prentice did not remove any fuel from his tank for his second flight, which was very fast, the Merco two-stroking all the time. Having completed the schedule, the Stuntwagon made a nice landing, but unfortunately broke the prop. Mike Rolls' Veco Chief did not seem quite happy in this round. It appeared to waver during the eights and turned in a generally lack-lustre performance. Dave Day's Ambassador was in the air in less than two feet but the Elfin was labouring very badly and eventually the model crashed while trying to complete the vertical eights.

Ken Day's second flight was somewhat better than the first, but was spoiled again by a bad landing. Laurie Glover appeared to be having some difficulty in starting his motor, and when eventually he did get it going, it ran very badly the whole time until finally stopping while the model was inverted. Steve Blake flew a very impressive second flight, making him a strong contender for a top place, but it was Tom Jolley's performance with his Curtiss Swift which had done more than enough to win.

Fireball Trophy

As in the two previous years Mike Beach, this time assisted by Ian Russell, chose a selection of the most authentic models from the C/L flight line and asked their owners if they would care to participate in the Fireball Trophy.

Choices were Charlie Crawley's Keil Kraft Phantom powered by a Mills 1.3, Dick Roberts' Arkansas Traveller powered by a McCoy 60, Ron Davenport's Carter-Nordec 60 powered Yoicks, Tom Hughes' Shaws Model Supplies 'Goblin' (ED MK. III Series 1), and Ron Prentice's Dennis Allen's Boxcar, which was powered by a Madewell 49 Spark ignition motor.

All were required to perform in the authentic manner. Thus the Arkansas Traveller screamed around at a very impressive speed, making a very exciting noise, the Phantom and the Goblin flew sedately round and round, and the Yoicks performed some of the stunt schedule, as should have the Boxcar. Unfortunately, on its second circuit, a loud bang came from the motor and the model glided down to land with propeller still revolving, putting Ron Prentice out of the running with a broken con rod.

At the completion of this purposely low-key event, the eventual winner was Tom Hughes, flying the Goblin, a model which I had not seen before. It is really nice to see that a competition like the Fireball Trophy can be won by such a simple trainer plane doing what it does best - just going round and round!

Lancastria Cup event

Over to Andy Brough:

Last year I said that Midge racing had come of age. How true that statement was. This annual event at Old Warden attracts a regular clientele who look forward to the largest one-class speed event of the year. A total of nineteen entries were received; an all-time record. The beautiful weather played its part with just a light breeze to provide line tension. All the entries were Midges. The idea of building reduced versions of larger class models, or other class 1 speed models has not caught on.

The proceedings started promptly at two o'clock with a photo session of models and entrants. A wise precaution as one never knows how many models will remain at the end! The rules allow for a competitor to have both his timed flights 'back to back' (to save having to return later - helpful if he has entered another event) but all chose to fly on a two-round basis.

After the line checks yours truly decided to open the proceedings with a Javelin-powered Midge. Lack of practice really showed, for the 6x9in. prop proved too much for the Javelin, 72.9mph being the result.

The first really fast speed was put up by Dave Smith, his Elfin-Midge recording a 90.8 (note: all



Left: George Armstead (left) is assisted by Dick Sherman in readying the TD.020-powered Playboy for flight. Glow leads and fuse for engine cut-out looks a complicated approach to British 'diesel' eyes. Below left: Historic stuff. Peter Michel restored this pre-war Nash Petrol Monoplane for the meeting. Brown Junior powered model last flew in 1939. Below: Trevor Jones with his CO₂ version of the famous Blue Dragon.





Top: Friedhelm Mink of SAM 85 with his distinctive Leipziger Flugel canard sailplane which was covered in original German Diplom tissue. **Next down:** Beautiful Frog 500 powered Toreador by Derek Ridley is finished as per prototype, carrying designer Claude McCulloch's identification number. **Angled photo:** Blue and white Liedramp Flash was built by Pat Mardell from a continental magazine article. The original was powered by a flash steam unit; hence the long, hinged cabin top for boiler access (and the name of the model). **Bottom:** Spencer Willis of West Byfleet with his Mixmaster, a pusher Wakefield designed by Helmut Meyer of Bremen and described in the 1950 Aeromodeller Annual.

vintage-engined speeds include the 15 per cent bonus). Mike Bennett (last year's winner) followed with 83.5 and Skitt/Clews with 81.8. Virtually the last man, Barry Wade recorded a '90 dead' after several problems earlier on, which persuaded him grudgingly to alter the compression on his Elfie. He obviously knew what he was about as shortly into the second round he recorded 100.5 which we know would be hard to beat. In the event no-one did, although credit must go to Sam Skitt and Robins Clews

Rupert Moore Memorial Event

1	Phil Siddall	Jackdaw	1% error
2	Don Knight	Jackdaw	5% error

C.A. Rippon Memorial Trophy

1	Chris Strachan	99 secs
2	Mike Hetherington	53
3	Garry Johnson	48

Achilles Competition

Junior			
1	Mitchell Cooper	95 secs	
2	David Toyer	88	
3	Alan Hardwick	74	

Open			
1	Adam Beales	230 secs	
2	Ken Cooper	209	
3	Tony Hall-Willis	195	

Chobham Trophy:

Chris Strachan Yankee IV

Danny Sheelds Trophy:

Peter Michel Kummer

Skua special event Three-flight aggregate

Senior (UK)					
1	John Pool	Barlby, Selby	141 seconds	Gold Plaque	
2	Trevor Simpson	Surbiton	122 seconds	Silver Plaque	
3	Gordon Beal	Harlington, Doncaster	113 seconds	Silver Plaque	
Overseas Visitors					
1	Joe Macay	Southfield, Michigan	130 seconds	Gold Plaque	
2	Dick Sherman	Plymouth, New Hampshire	116 seconds	Silver Plaque	
3	George Armstead	Blastonbury, Connecticut	98 seconds	Silver Plaque	
Special Awards					
	Ruth Sherman	Plymouth, New Hampshire	Engraved Crystal Goblet		
	Andy Faykun	Los Angeles, California	Engraved Crystal Tankard		
	Bob Walden	Sunbury on Thames	Engraved Crystal Tankard		
	Brian Harvey	Stanton Harcourt, Oxon	Silver Plaque		

Old-Time Stunt

		Points
1	Tom Jolley	1706
2	John Perry	1627
3	Steve Blake	1475
4	Ron Prentice	1320
5	Ken Day	1293
6	Mike Rolls	1235
6	Brian Waterland	1264
7	Mike Rolls	1235
8	Peter Illiffe	1222
9	Dave Day	1064
10	Ian Horne	963
11	Gordon Counsell	936
12	Laurie Glover	932
13	Peter Michel	787

with their genuine speed of 89.11 which was good enough only for 4th place, being the three Elfins.

Johnny Hall and myself decided at the start that as there were no other models than Midge entered, the 'Johnny Hall Cup' should go to the most deserving 'hard luck' case. In that, Brian Hunt excelled. Each of this three attempts resulted in the model developing severe twitches leading to loops and even a corkscrew roll ahead of the lines. Most of this after several good 'straight and level' laps. No reason could be found and the Midge didn't seem to suffer much damage. Ten out of ten for entertainment though. In fact Brian's model wasn't the only one to roll; earlier on Mike Downing's launch resulted in the model going inverted with the leadouts pointing outside the circle. Quick action by Mike rolled the model upright and on to record a timed flight. Should fly combat, these lads!

I must thank Babs Roberts for keeping track of all the results, recording all the entries and working out the factored speeds. Johnny Hall also helped by expertly operating the Fred-Carter-tested watch which is the official timepiece for this event (backed up with one other timer). We ran a slick event this year with 30 timed flights plus 12 attempts taking just over

Fireball Trophy

1	Tom Hughes	Cyril Shaw Goblin/ED MkII
2	Dick Roberts	Arkansas Traveller/McCoy 60
3	Ron Davenport	Yoicks, Carter Nordec 60
4	Charlie Crawley	Phantom Mills 1 3 MkI

Lancastria Cup

1	Barry Wade	Midge	100.5 mph
2	Mike Bennett	Midge	94.9
3	Dave Smith	Midge	90.8

Johnny Hall Cup

Brian Hunt Midge

Vintage Chuck Glider

1	Ted Horsey	20 secs
2	Ted Hopgood	153
3	Mark Hinton	148

Junior award: Luke Willis

John Haggart Trophy

1	Cliff Smith	Simplex	1% error
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Keilkraft Trophy

David Whitehouse Falcon

Earl Stahl Event

High-wing (seven entries)		
1	Don Knight	Rearwin
2	Mick Lester	Rearwin
3	Trevor Simpson	Vigilant

Low-wing (21 entries)		
1	Doc Martin (USA)	Helicat
2	Dick Shorman (USA)	Skua
3	Mike Hetherington	Curtiss

John Haggart Memorial Trophy

(16 entries)			
1	Cliff Smith	Simplex	1 sec error
2	Chris Goodley	Miss Farnboro	3 sec error

three hours. That's under five minutes per flight, which isn't had for any competition, let alone speed. The results are also gratifying because vintage motors took the first three places, which is just how it should be.

After the party was over...

'The best ever...' 'How do you do it?' 'The most enjoyable meeting I've attended in forty years...'

A trio of the many comments heard in praise of a splendid weekend, proving yet again that Vintage is alive and well. Special thanks to our overseas visitors; we hope you'll come again. Let's not be too complacent though; there's room for better communication between ourselves and enthusiasts; and better discipline too. For example - don't forget that Old Warden is a 'full-size' airfield and a request to clear the flying area because of aircraft movements applies to everyone. And remember that the admission fee to the airfield is the standard Shuttleworth charge to look at the museum. The flying is free!

Lots of competition news in this account, simply because lots happened; but the majority went along to fly, chat and enjoy at their own speed. Look out for a further photo-feature next month.

new World Speed Record for Russia and success in Sweden for Great Britain with an individual win and the premier Team award in R/C Sale; the Team award in C/L Aerobatics; second Team place and a new British record in C/L Speed; and third Team places in Team Race and Combat. Hot and sunny Oxelosund soon changed to typically British conditions during 21-26th July. Over to our on-the-spot reporters

SUPEL



F2A Speed:

Report by Ken Morrissey

Despite a lower entry this year we found the quality of competition was higher than ever. Seventeen fliers from eight nations took part, all with a notably friendly attitude, at this beautiful location.

Under the control of Contest Director Nils Bjork processing began on Wednesday in temperatures of 28°C. All models were of sidewinder, asymmetric style except for those fielded by Metkemeijer (Netherlands), Rietenberger (Netherlands) and Stjarnesund (Sweden) who all flew CFS-equipped variants of the Kingfisher design.

The Russian Team all used beautifully-made motors, designed and produced on an individual basis. The Hungarians used Mokis; Tanev (Bulgaria) chose his home-made five-port design, Metkemeijer chose a Nelson and Fallgren (Sweden) a modified Cox. The rest of the bunch used Rossi Mk2 and Mk3 motors

except for Peter Halman (GB) who ran his own design Irvine .15 prototype, and Dave Brewin (GB) and lone Italian entry Pallo del Bianco who chose OPS motive power. Most pipes were of the 'high volume' variety with 32mm cones, although Bimbi (one of the Hungarian trio) used a cone in excess of 33mm. Tailpipes varied in diameter from 4.1 to 5.2mm.

Thursday was for official practice, each country being allocated a 'slot' of thirty minutes. Temperatures were again around the 28°C mark. First off were the Russians. Pitzalev (291.3kmh) was followed by Kalmakov (279.5) but new team member Sergey Kostin failed to put in a run. Next up were Great Britain. Pete Halman achieved a smooth 283.7kmh but Dick McGladdery and Dave Brewin had yet to find their settings. Hungarians Mitt and Szegedi circulated at around 278kmh with the rest of the competition all under 270.

Round One had been due to start at 10am on Friday but heavy rain caused a postponement until 1pm. The temperature was slightly lower at 24°C; humidity was 72%. First up was Pitzkalev (USSR) who set the target at 291.5kmh. Josef Molt (Hungary) managed 288.5kmh with his old Moki-powered model. Our own Peter Halman screwed in the needle slightly too much for 283.2. Other notable scores in this round were from Szegedi (277.8) and Mark Steiner (Australia) who achieved 270.7. Hungary's Zoltan Bimbi

was disqualified for high flying at approximately 278kmh.

It was even cooler for Round Two (22°C, 56% humidity). Kjellberg's speed of 258.6kmh was slow and the Russian flier Kostin, who suffered fuel feed problems, was unable to put in a flight. Pete Halman went up slightly on propeller pitch and was rewarded with a splendid 283.7, thus improving on his British Record. Fastest yet was Alexander Kalmikov (USSR) with a cool 292.0, a speed shortly to be equalled by his team mate Pitzkalev. Tanev, who had failed to qualify in Round One, put his troubles behind him with 271.1kmh, and Molt improved to 290.3kmh. Szegedi was another to do better, managing 282.1 in this round. After a little coaching from Mrs Fontana, the beautiful Italian Team manager, Paulo del Bianco managed a flight of 269.9. After a Round One shaft run Dave Brewin posted 245.7kmh.

In the practice session after this round most competitors were putting in plenty of effort to gain Team A prizes; and it was here that Pete Halman turned a few heads with a fantastic 287.8kmh, a flight timed by the waiting Hungarian team.

Round Three also suffered a delayed start



R EUROCHAMPS

because of heavy rain. With a temperature of 20°C and humidity of 54% conditions were at their freshest. The Hungarians were putting pressure on Zoltan Bimbi to gain a team prize but with no luck. Flying in his awkward-looking left-handed style his attempt terminated in a crash. After many hours of refitting his Mk3 Rossi Dick McGladdery put in a splendid personal best of 267.1kmh; and Kostin found his setting with a clean 291.0 which would give him eventually third place. Pete Halman slowed to 266.9kmh, thanks to a damaged prop; but we were all in for a real lesson in perfection when Sergey Pitzkalev turned in a magic 295.1kmh with his No. 2 model for a new World Record, deservedly to loud applause from his fellow competitors. A magnificent flight Dave Brewin's 241.9kmh consolidated the second Team prize for Great Britain whilst Stjarnesund's 246.4 earned third place overall for the local boys.

Most competitors used last year's equipment but managed to find a little more horsepower. Props were around 74-75 mm diameter with pitches of between 6.2 to 6.7 inches. Motor exhaust timing was around 190°; transfers 140°. The surprise of the meeting was Pete Halman's prototype Irvine .15 and pipe. The motor was drawn up last November and only four have been built since May. A total of only ten flights, including these Championships, at speeds of 275-287kmh is a truly remarkable testament to Peter's hard work and dedication. We understand that the first one hundred units of this hand-built motor will be released for sale by Irvine Engines during the spring or summer of 1988...

Headings photos: The winners! From left to right we see the top three in F1A, F1B, F1C and F1D.

Bottom left: Italian Team coach Signora Fontana congratulates winner Sergei Piskalev on his F2A World Record. **Second-place F2A Brits** Dave Brewin, Peter Halman and Dick McGladdery. **Below left:** Serious Pete Halman fuels us Dave Brewin's model. **Below:** Typical asymmetric layout favoured by eighth-place Markstainer (Austria). **Below right:** Semi-finals F2C section as Bert Metkemeijer concentrates hard on landing.



F2A Speed

Individual results

		RD.1	RD.2	RD.3	Best Time
1	S. Pizkalev	291.5	292.0	295.1	295.1
2	A. Kalmikov	281.7	292.0	290.1	292.0
3	S. Kostin	282.1	0.0	291.0	291.0
4	J. Muli	288.5	290.3	289.2	290.3
5	S. Szegedi	277.8	282.1	285.0	285.0
6	P. Halman	283.2	283.7	266.9	283.7
7	A. Tanev	0.0	271.1	265.5	271.1
8	F. Markstainer	270.2	256.4	256.8	270.2
9	P. Del Bianco	0.0	269.9	261.6	269.9
10	R. McGladdery	265.3	252.8	267.1	267.1
11	O. Kjellberg	256.8	258.6	255.9	258.6
12	G. Fallgren	0.0	239.5	247.4	247.4
13	P. Stjarnesund	0.0	0.0	246.4	246.4
14	D. Brewin	0.0	245.7	241.9	245.7
15	R.A. Metkemeijer	231.5	203.3	243.4	243.4
16	P. Rietbergen	0.0	0.0	0.0	0.0
17	Z. Bimbi	0.0	0.0	0.0	0.0

Team Results

1	USSR
2	Great Britain
3	Sweden

F2B Stunt

Report by Rex Landon

After travelling across some most beautiful countryside we arrived at Oxelosund Airfield to find hot weather! It stayed sunny throughout practice, with light to moderate winds. The flying site was near trees, which caused turbulence when the wind came from that direction, and this continued to be a problem throughout the competition.

Probably because of the time of year and the travelling distance involved entry was lower than previous stunt competitions, with many notable flyers absent. However the quality of entry was very high so we all waited with great anticipation for flying to start in earnest. We were not to be disappointed.

On the first day of competition it was pouring with rain by the time flying started, despite a half-hour postponement until 9.30am. The wind was light, but the rain persisted throughout the morning, not helping those flyers unfortunate enough to be drawn early.

The Belgian Luc Dessauzy started proceedings and presented a tidy flight

but the judges were apparently unimpressed. Peter Van de Mortel's flight was particularly affected by the rain. His ST60 nearly stopped twice - in the vertical eights and cloverleaf - so his marks suffered accordingly.

Next to fly were the two Russians, Sergey Klychkov and Vladimir Kalennikov. Both were equipped with fully-decorated own-design stunters, each fitted with a specially built stunt .40 motor. These motors sound perfect for stunt - they are quiet, but possess plenty of power and are consistent. Both flyers looked well practised, but lacked accuracy at the intersections, the judges watching particularly for this point.

Gilbert Berringer of France must have thought this was not his competition. After losing his number one aircraft in practice when he was blinded by the sun, pulled out too low and hit the tarmac, he then had problems with his Webra 61 four-stroke which nearly stopped in inverted flight. He was lucky to be able to return to normal flight before having to abort his pattern. It was found that a duff plug, not the rain, had caused the problems.

First of the British contingent to fly was Barry Robinson with his Merco 61





Northwind. He had worked very hard in practice to get the plane correctly trimmed after late tailplane modifications before leaving England. The wind had dropped completely and his flight pattern looked good, which gave the British flyers the confidence they needed.

Bill Draper's Superhawk powered by a new Enya 40 Schneurle-ported engine then put in a good flight which looked very sharp, with good intersections.

Tony Eiffaender also looked very steady despite his nerves, the new PAW 40 Diesel sounding very nice. Tony has now worked out a new method of starting to prevent a recurrence of the confusion at last year's World Championships, when the judges were not quite sure when his flight had begun. The diesel needs a pre-flight warm-up to get the correct setting, so it is started in the 'pits', then stopped to allow a specially made insulation box to be put around the cylinder head before the plane is taken to the circle. The engine then starts first flick!

Both Phillippe Rampoux and Gerard Billon flew very fast flights. This caused lack of precision, particularly for Billon. Both planes were nicely finished, with OS45 and OS50 powerplants.

Henk de Jong of Holland put in a good flight which was to be his best of the competition, the ST60 Maya looking nice although it had been hastily repaired after a line break in practice when he was fortunate not to write-off the plane totally.

Luciano Compostella, the reigning European Champion, has completely changed model design and engine. Replacing the well-known ST46 Tango is the own-design Lamp, with straight wing and four-stroke Webra 61. Despite relatively high weight and small wing area the plane turns very sharply and an excellent flight resulted.

We all waited for Anatoly Kolesnikov, reigning World Champion. He lived up to expectations. His own-designed plane, powered by another specially-made Russian .46 engine, is finished to the highest standards. His flight, although lacking accuracy in the loops and bunts was well presented and very smooth, and it left him in the lead for the first day ahead of Compostella and de Jong. In fourth place after a competent last flight of the day on his home territory was Ove Andersson.

Second Round

This was an important day, for the best flights of Days One and Two would be taken to find the final fifteen qualifiers. Our team had flown well, and we all hoped they could keep up the pressure.

There was no rain, but the light-to-moderate wind was variable in direction and turbulence was to affect a few flyers. Bill Draper strengthened his position with another very good flight. Tony Eiffaender again put in a fine performance, but lost landing points with an over-run. Barry Robinson flew a tidy, powerful schedule to improve his score. All three flyers had done enough to qualify the final rounds. A tremendous effort; indeed, our best for some years.

At last Gilbert Beringer got his four-stroke running sweetly, and his score would give him enough to qualify. Both Ake Nystrom of Sweden and Pawel Dziuba (Poland) did better on the second day and managed to qualify, although Nystrom had to call an attempt after the OS40 FSR failed to start first time.

Kolesnikov, Compostella and de Jong were still ahead of the rest of the field, despite lower scores but they had done enough. The stage was set for the final day...

Final Rounds: Third Day

Flying was to start an hour earlier. Each flyer had to fly twice (the order redrawn for the second flights) and the highest qualifying score was to be added to the best final round score to give final placings.

It was all very close, with flying of the highest order throughout. The weather was cool and dull but with no rain. The wind was again variable and light to moderate although strengthening gradually throughout the day. If we could keep up the standard, the British could get one of the team prizes...

Henk de Jong was first to fly, at 8am when most of us would still rather have been in bed. Nevertheless he flew another good pattern. Gilbert Beringer, his wife Veronique with him at start-up and then in the middle of the circle, flew a steady flight, the engine sounding very nice. He really has four-stroke technology sorted out, managing to start on the first flick every time, and flying with a model especially designed for the engine.

Andersson put in another sharp, accurate flight, handling the bumpy conditions well; then as Barry Robinson took off, the wind dropped to allow him to put in another good flight. Bill Draper looked rather nervous, although still scoring well, but Tony Eiffaender again lost landing points with another over-run.

Compostella at first had to call an attempt when the Webra 61 four-stroke would not start, but eventually put in another good score.

Kalesnikov, although still scoring well did not fly at his best, but looked smooth nevertheless. Nencioni of Italy warrants a special mention. Despite having only one eye he flies smoothly - and as the scores reveal, he is remarkably consistent.

After a downpour at lunchtime the circle was very wet for the final, deciding round. Henk de



Top left: Deep, upright cowl and tri-blade prop signify Luciano Compostella's winning four-stroke approach to F2B. Close finish, though! Top right: Thirteenth in F2B was Kalennikov (USSR) with this odd-canopied sleekster, seen in front-end close-up above. Tell us - what happened to jet-style stunts?

Jong flew well to secure third overall position. The three British members all flew extremely good patterns Barry Robinson recording highest score. Tony Eiffaender finally got in a full flight inside the time and his final score increased accordingly. Bill Draper was much more positive in this round.

Andersson's final flight was enough to ensure fourth place; but final honours were to be fought between Kolesnikov and Compostella. They were within a point of each other and the title was for the taking.

Compostella flew first. His manoeuvres were

F2B Aerobatics

Individual Results

			Round 1	Round 2	Round 3	Round 4	Best two
1	L. Compostella	Webra 61 4-stroke Italy	2997	2958	2876	2932	5929
2	A. Kolesnikov	Russian 46 Stunt USSR	2998	2868	2918	2931	5929
3	H. De Jong	ST 60 Netherlands	2951	2841	2718	2858	5809
4	O. Andersson	ST 46 Sweden	2920	2796	2816	2888	5808
5	C.W. Draper	Enya 40 GB	2919	2895	2791	2839	5758
6	P. Rampoux	OS 45 ABC France	2931	2846	2717	2764	5695
7	A. Eiffaender	PAW 40 Diesel GB	2851	2711	2700	2841	5692
8	B. Robinson	Merco 61 GB	2762	2821	2798	2858	5679
9	G. Billon	OS 50 France	2846	2788	2733	2801	5647
10	G. Beringer	Webra 61 4-stroke France	519	2866	2677	2647	5543
11	P. Zawada	ST 60 Poland	2809	2705	2804	2685	5494
12	A. Mancioni	ST 46 Italy	2734	2305	2744	2745	5479
13	V. Kalennikov	Russian 40 Stunt USSR	2729	2604	2594	2682	5411
14	P. Dziuba	ST 46 Poland	2678	2753	2648	2643	5401
15	A. Nystrom	ST 46 Sweden	2634	2734	2655	2571	5389
16	C. Orsini	ST 46 Italy	2722	2646	0	0	2722
17	Dr. G. Egervary	ST 46 W. Germany	2498	2687	0	0	2687
18	T. Tronina	ST 60 Poland	2681	2639	0	0	2681
19	F. Wenczel	Own design 46 Austria	2659	2629	0	0	2659
20	S. Klychkov	Russian 40 Stunt USSR	2642	2637	0	0	2642
21	G. Marinov	HP 40 Bulgaria	2582	2286	0	0	2582
22	J. Kelev	HP 40 Bulgaria	2228	2580	0	0	2580
23	S. Montev	HP 40 Bulgaria	2193	2459	0	0	2459
24	L. Dessaucau	ST 60 Belgium	2220	2437	0	0	2437
25	P. Van De Mortel	ST 60 Netherlands	1699	2414	0	0	2414
26	W. Gromann	OS 45 W. Germany	2336	2389	0	0	2389
27	W. Magg	ST 46 W. Germany	2226	2070	0	0	2226
28	E. Linne	Fox 35 Sweden	1928	1808	0	0	1928

Team Results

1	Great Britain	17119
2	France	16885
3	Italy	16776
4	USSR	16619
5	Poland	16140
6	Sweden	14933
7	Bulgaria	14428
8	W. Germany	14206
9	Netherlands	9922
10	Austria	5288
11	Belgium	4652

of consistently good shape but Kolesnikov, who finished the round, flew to equal standard and scored well in the difficult manoeuvres.

Amazingly, both finished with the same total, Compostella's last flight just pipping Kolesnikov by one point. No-one could remember a dead-heat happening before, and the rule book apparently contained nothing to cater for this. The dilemma was put to the FAI jury, who decided that the best back-up flight would count. Thus Compostella was European F2B champion.

Bill Draper finished in a very worthy fifth place, with Tony Eiffaender seventh, and Barry Robinson eighth.

The icing on a very good contest cake was that Bill and Barry secured team prize for Great Britain. Fantastic. It was well deserved. All three acquitted themselves admirably in high class competition. They were a real team in its truest sense. The French were runners-up, with Italy third.

The whole competition was flown as it should be, in a very friendly atmosphere, with no dissent. The Swedes deserve the highest praise for the smooth running of all events.

The judges generally marked strictly, but were fair and consistent. They look most all for accuracy, which may have cast Kolesnikov the title, for his loops and bunts were not the most accurate, whereas Compostella's, although slightly out of shape, were always accurately positioned.

Generally lap times were in the range 5.1 to 5.4 seconds/lap and this seemed to be about right for the conditions. The French flew quicker, 4.7-4.9, and this may have downgraded them slightly as some accuracy must have been lost.

The Continentals seem to fly a smaller, more compact pattern with very sharp corners than is normally flown in Great Britain, but sometimes they lose accuracy and their score is diminished.

F2C Team Race

Report by Derek Heaton

Team race this year had its lowest entry ever with just twenty-eight teams but it was still a very competitive event that ran smoothly thanks to the efficiency of the organisers.

As usual, F2C happenings started the day before the racing itself with official practice and processing. Generally there were no problems although the tank-measuring team occasionally had to make several attempts at verifying that capacities were below the 7cc limit, such is the complexity of some of today's multi-function systems.

Official practice at the race circle has become something of a tactical exercise with several of the fancied teams not taking their turn, preferring instead the anonymity of the practice site, or just running their reserve models to familiarise themselves with the race circles. Notable exceptions were the three Russian teams who quickly stated their intentions, Onufrienko/Bourtsev taking just two tankfuls to find 34 laps at 17.5 sec/10 laps and Zhirov/Shevchenko taking all of three tanks to achieve 34 laps at 18.3 secs/10 laps. Zhirov then tried his reserve model which achieved an identical time!

Other notable sessions came from the Italian teams, who practiced a three-up racing style at 'Sub 19.0/10 laps' airspeed, and those perennial competitors the Metkemeijer brothers who were running their FMV engine at 27 lap range for 18.5/10 laps.

Information filtering back from the practice area throughout the day suggested that the British team were all reasonably happy. Delor/Surugue of France were going particularly well with 43-lap range at 18.4/10 laps but with an affinity for spitting the prop off in flight because of the left-hand thread on the crankshaft. Sladdin/Gardiner had the misfortune to break a line on their quickest model but the engine survived the ensuing flyaway.

There was a distinct change in the weather for Round One. It was at least 8°C cooler but as the racing had been put back until 1.00pm the teams had plenty of time to recheck their settings from

the hot, sunny conditions of the practice day.

Heat 1 showed that the Russians Shatalov/Mazniak had maintained their practice form, achieving an excellent run to record 3:27.8 followed by Gustavsson/Harne whose considerably slower airspeed meant a time of 3:49.2, with Peter Brendel suffering from setting problems and four pitstops to record 4:06.

The second heat again featured an excellent result for the Russians, Zhirov/Shevchenko just beating their team mates with a cleanly-flown 3:27.4 leaving the Austrian pair of Fischer/Straniak on 3:44.8 and Brozek/Jastrzebski, the only Polish team, to trail in at 4:17.3.

Heat 3 turned into a two-up race after the non-arrival of Kolev/Jotor, the third Dutch team. The Bulgarian team's maladies of a cold engine and bad pitstops meant the slowest time of the contest at 5:44.9 but the Swedish team of Andersson/Ahling lacked the airspeed to take advantage and could manage only 3:58.8.

Heat 4 was a good race by all three competitors with the tall German pilot Marschall (3:41) causing minor problems for the other two pilots, Magli of Italy who finished in 3:43.1 and Steve Smith who suffered a missed catch at their first pitstop. Although Colin retrieved the model quickly their time of 3:41.8 was to prove just too slow for a semi-final place. Heat 5 gave the Metkemeijer brothers an excellent three-stop 3:34.5 against the British team of Whorton/Salisbury who put in a competent 3:42.8 in their first-ever European Champs race. The third team, Dessau/Dessau of Belgium made an unexpected third stop at 96 laps to finish on 4:02.6.

The sixth heat effectively clinched the team prize for the Soviet fliers. Onufrienko/Bourtsev recorded 3:26.9, the fastest time of the first round. The other fliers were being constantly overtaken by Bourtsev so they had to move

around the pilots' circle a lot, probably slowing their final race times as a result. Hristov/Hristov (Bulgaria) recorded 3:58.5 with Fry/Thorpe (Great Britain) just behind with 4:05.7 after an unplanned fourth pitstop at 96 laps.

More troubles were evident in heat seven with the Bulgarians Papov/Bodurkov (3:52.8) starting with a cold engine whilst the Visser/Buys team suffered when the pitman stuck his finger into the prop at their first pitstop, this slowing their time to 3:53.9; whilst the French team of Delor/Surugue had a perfect run with excellent pitwork by Roland whose very fast 'catch, fill, flick and roll away' style was rewarded by a fine 3:31.7.

Heat 8: and the last chance for a good British time with the fast pair of Sladdin/Gardiner taking on Rasmussen/Geschwendtner (Denmark) and Samuelson/Axtelius (Sweden). Both the other teams had bad settings to finish in 4:16.7 and 4:44.7 respectively. Martin Sladdin got away relatively slowly but had three good stops, but he was finding it difficult to keep his engine on song behind the big Danish pilot and he had to settle for a disappointing 3:48.6.

Heat 10 saw two teams take full advantage of their 'permitted' two warnings to record placed in the top 9. The race was won by the Italians Voghera/Menozzi, who glided past 100 laps in 3:36.1, followed by Thorhauge/Rasmussen (Denmark) in 3:39.4, leaving the sole Finnish entry Nore/Fogerstrom to record 4:07.2.

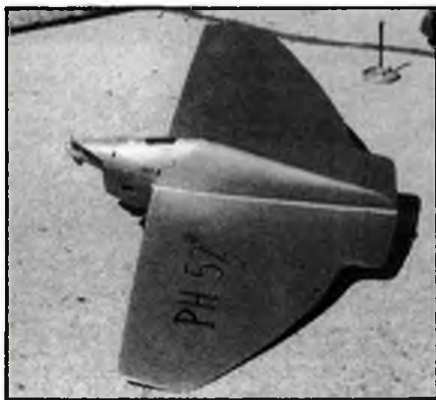
The final heat was another two-up affair with Pennisi/Zana (Italy) taking advantage of the free space to record 3:33.4 whilst the Austrians Nitsche/Kuhnegger showed ample airspeed but suffered a poor first pitstop. A slipped second catch kept their time outside the top nine at 3:43.5.

The second day of the competition brought similarly cold weather. The stage was set for



Left: F2C winners Zhirov/Shevchenko display mixed emotions at Victory. Below: Britain's Ian Gardner grasps in anticipation of a fast pit-stop but he and Martin Sladdin were to finish in 18th place. Bottom photo: The Italian team were all Cipolla powered. Magli/Pirazzini, at left, had the only retract-gear model; Pennisi/Zana are at centre with Voghera/Menozzi at right.





many teams to attempt to break into the semi-final group, but as things turned out only two teams could show improvement enough to clinch a place.

Thorhaug/Rasmussen, who were in eighth place at the end of Round One were unable to improve at 3:55.9 and neither Gustavsson/Harne (4:52.8) nor Hristov/Hristov (3:48.6) would take any further part in the competition.

Heat 2 again drew defending champions Smith/Brown against the Italian team Magli/Pirazzini. Colin had to reduce compression at the first pitstop but airspeed was lacking and they could record only 3:42.5. However, the Italians made no mistakes to record 3:39.3 to squeeze into the top 9; this meant three Italian teams in the semis and the Second Team place. The Polish team, Brozek/Jastrzebski were right out of luck, running into the circle at their first pitstop.

In Heat 3 Fischer/Straniak (Austria) tried hard, picking up two whipping warnings in the process but engine restart problems saw them retire at their second pitstop. This left Sladdin/Gardiner to battle it out once again against the big Danish pilot Rasmussen. Martin had learned from his first-round experience and flew well but again his final result 3:47.1 was lower than hoped.

Heat 4 saw Onufrienko take three flicks at the 'off' and this, coupled with a very long second stop meant a time of 3:40. The British team Fry/Thorpe, now using their Nelson model, broke the pump in the warming-up period. A quick change saw them get away on time but they could manage only 3:47; whilst a missed catch by Visser/Buys gave them 3:55.4.

Heat 5 was the last chance for a British team to make the semis. Andy Whorton got their Cipolla - powered model off to a rather slow start, the engine taking ten laps to warm thoroughly. However, the Papov/Bodunkov model ran into the circle at their first stop giving the British lads a re-run.

Rob and Bert Metkemeijer proved their consistency with an identical 3:34.5 in heat 6 to win comfortably from Voghera/Menozi (3:42) and Brindel. Engfer who improved slightly with 3:54.7.

In heat 7 Delor/Surugue flew competently to record 3:43.5 whilst Russian pilot Shevchenko was having a lot of problems with overtaking, finally being disqualified for flying into the Finnish model of Nore/Fagerstrom, giving the latter a reflight.

Panic stations set in for the Austrian pair Nitsche/Kuhnegger as their shut-off failed in the ninety-second warm-up. This was to prove their undoing as the model ran out of fuel at 72 laps just half-a-lap away from the pitman. An attempted landing saw the model spin out of Kuhnegger's hand into the circle to finish their chances. Kolev/Jotov (3:48.5) and Andersson/Ahling (4:08.5) did not have sufficient horse-power to challenge the leaders.

Heat 9 saw only one team complete the distance with Axtilius/Samuelsan getting everything just right to clinch a semi-finals place. Kjell Axtilius was unable to watch the last few laps for he knew that range was tight. In fact the engine died at 99 laps and they glided home in 3:37.6 - some reward at least for their hard work in bearing the brunt of the organisation behind the Eurochamps. Pennisi/Zana had one

of those 'optimistic' settings with an excess of compression, and disqualification for whipping was the penalty; whilst the West Germans, Marshall/Kuckelhorn were unlucky to be disqualified when the pilot stepped out of the circle after his mechanic had fumbled the model at a pitstop.

Heat 10 was a two-up affair between Shatalov/Mazniak (3:40) and Dessaucy/Dessaucy, both of whom got away slowly. A bad second pit stop probably cost the Belgians a place in the semi-final for their time was just over five seconds slower.

The final heat was the re-flight for Nore/Fagerstrom and the Brits Whorton/Salisbury. The Finns clocked 3:53.8 but the British pair were out of luck - their engine cut on take-off and went 'cold' after restarting. During the necessary pitstops the pilot ran out of the centre circle to be disqualified in consequence...

And so to the semi-finals, which were to be the setting for some fine racing.

The first 'semi' was absolutely excellent. The side-exhaust Nelson-powered model of Delor/Surugue (3:33) just beat - by two seconds - the Cipolla-equipped craft of Magli/Pirazzini and the potent model of Shatalov/Mazniak, motive power for which was provided by an 'own design' engine and which, despite being short of range (and having to glide home rather slowly after the pilot tripped over) finished in 3:39.

In the second race Voghera/Menozi (4:35) suffered a bad setting, initially with too much compression and then too little; whilst the other two teams gave us a first-class race. The 27-lapping FMV of Rob and Bert Metkemeijer took the honours by just one second (time: 3:30) from the 33-lap model of Onufrienko/Bourtsev.

The final race of this stage of the 'semis' saw a trouble-free run from Axtilius/Samuelsan (3:41) although their model was short on airspeed, while Pennisi/Zana did not apply enough compression, slowing them to 4:16. Zhurov/Shevchenko circulated happily above them all the while to record the fastest heat of the event at 3:22.

The second round opened with a disappointing race. Axtilius/Samuelsan had trouble with their engine setting to tail off to 4:24.6 and Voghera never recovered from a sluggish start to record 3:45.9. Russians Shatalov/Mazniak were even shorter on range, retiring after 98 laps. Rob and Bert Metkemeijer were already assured of a place in the final so they were happy to settle for 3:45 from their reserve model. Elsewhere there were dramas. Both the Italian and Russian models landed on the same lap, but Zhurov took his eye off his own model as Pennisi's approached, missed the catch and had to retire. Unfortunately for the Italians Zana dropped his catch too and an unexpectedly slow 3:44 was the result!

The last race saw Onufrienko/Bourtsev defending their third place from Magli/Pirazzini and Delor/Surugue. Bruno Delor was given very little room by Bourtsev in which to fly his model and was rather unlucky to be disqualified. The Russians recorded 3:27.8.

The Final itself thus consisted of one Dutch team equipped with a 27-lap model against a duo of Russian teams with the advantage of 33-lap range. The Metkemeijer brothers were first away, smartly followed by Zhurov and, lastly,

F2C Team Race

Individual results

1	Zhirov/Shevchenko	USSR	6 55 1
2	Metkemeijer/ Metkemeijer	Netherlands	7 02 7
3	Onufrienko/Bourtsev	USSR	Disqualified
4	Shatalov/Mazniak	USSR	3 37 8
5	Delor/Surugue	France	3 31 7
6	Pennisi/Zana	Italy	3 33 5
7	Voghera/Menozi	Italy	3 36 1
8	Axtilius/Samuelsan	Sweden	3 37 6
9	Magli/Pirazzini	Italy	3 39 3
10	Thorhaug/Rasmussen	Denmark	3 39 4
11	Marshall/Kuckelhorn	W Germany	3 41 1
12	Smith/Brown	Champs (GB)	3 41 8
13	Whorton/Salisbury	Great Britain	3 42 6
14	Nitsche/Kuhnegger	Austria	3 43 5
15	Fischer/Straniak	Austria	3 44 8
16	Dessaucy/Dessaucy	Belgium	3 45 2
17	Fry/Thorpe	Great Britain	3 47 0
18	Sladdin/Gardner	Great Britain	3 47 1
19	Kolev/Jotov	Bulgaria	3 48 5
20	Hristov/Hristov	Bulgaria	3 48 6
21	Gustavsson/Harne	Sweden	3 49 2
22	Papov/Bodunkov	Bulgaria	3 52 8
23	Nore/Fagerstrom	Finland	3 53 8
24	Visser/Buys	Netherlands	3 53 9
25	Brindel/Engler	W Germany	3 54 7
26	Anderson/Ahling	Sweden	3 58 9
27	Rasmussen/Geschwendtner	Denmark	4 02 5
28	Brozek/Jastrzebski	Poland	4 17 3

Team results

1	USSR	1020
2	Italy	1053
3	Great Britain	1135
4	Sweden	1234
5	Bulgaria	1337
6	Austria	729
7	Netherlands	729
8	W Germany	747
9	Denmark	757
10	France	332
11	Defending Champions: Smith/Brown (GB)	342
12	Belgium	403
13	Finland	407
14	Poland	417

Far left: Smooth finish boasted by the Metkemeijers' F2C wing which still uses the FMV engine. Centre left: Despite stylish action as Denmark's Geschwendtner starts the BG-powered racer the team finished in a lowly position. Left: Roland Surugue (France) demonstrates his unusual pitting style in the semi-finals.

Onufrienko. The Dutch entrants seemed to be pulling out a slight advantage on airspeed when tragedy struck. As they came in for their third pitstop on 75 laps Onufrienko was still pitting at the 66-lap mark. Just when Bert Metkemeijer was gliding in the Russian restarted his model and launched without looking up. Straight into the Dutch lines went the model, severing them neatly and spinning the model into the wire cage - fortunately without damage. This meant that Onufrienko/Bourtsev were immediately disqualified and a re-run was ordered because less than half race distance had been covered. In the re-run Zhirov/Shevchenko held an advantage - despite missing a catch - because of the greater range of the model and they finished as winners in 6:55.1, closely followed by Rob and Bert in 7:02.7. Rob had already congratulated the Russians when it became clear that they could not be caught; a sporting act by a great enthusiast who deserved better luck.

What of the British performance? The Third-place Team prize was clinched; just reward for all the hard work of the week. By International standards this was a relatively inexperienced British team but all performed well - and they are keen to have a crack at the opposition. I am sure they have gained valuable experience and will be among the semi-finalists next time around...

F2D Combat

Report by John James

Practice day dawned hot and sunny. Once the British models had been processed, it was over to the practice area for an equipment-checking session. Most interest centred around the Russian team of Necheukhin (current World and European Champion), Beliaev (ex-European Champion) and Doroshenko (ex-World Champion) who as usual were flying very fast, highly-maneuvrable models which could be put through their paces with great precision. Again and again they were pulling out of manoeuvres scant inches above the ground, demonstrating the amount of practice they had put in at home. We later found out that they had spent two months in full-time training before the competition, which immediately puts them in a different league...

The Russian models, all with quite large wing areas, were not particularly light but their motors *are*. Most of the weight is thus in the model. This meant that it could be built with strength an important factor - rather different from the European philosophy of light, fragile models. The relatively low carnage rate of the Russian craft proved the sense of this approach.

Also looking good were the Swedes Johansson and Abrahamsson whose models, styled on the Boomerang, were powered by very fast Rossi Mk IIIs. Unfortunately that element of luck one needs in Combat wasn't with them as both were to lose their lives straightaway. British team member Mike Hember arrived with a new design based on a balsa frame with a foam leading edge. Power was supplied by Dutch USE motors, all of which were performing very well. John James had altered his model design slightly to achieve a snappier performance. His choice of motor was the front-induction Nelson but he was slightly down on airspeed until Gordon Isles reworked his propellers later in the week to give a dramatic improvement. Mike Whillance was flying his usual taper-wing models (also front-induction Nelson powered) which, once again, were quick.

The competition was scheduled to start at 9.00 am on Friday but we were treated to some real homely weather instead (it rained for about three hours). By lunchtime there were a lot of rather edgy fliers about as the adrenalin had

started to pump, only to be switched off by the weather; and nobody seemed too sure when to switch it back on again! Flying eventually started at 1.00 pm.

First to go were Disler (Switzerland) and Forstner (West Germany). A clean, high scoring bout resulted, with Forstner winning by four cuts to three. Beliaev then flew ex-World Champion Wakkerman (Holland) and beat him by five cuts to one (who says you can't take cuts at the speeds combat is flown these days!). First of the British to fly was John James, pitted against Johansson. Although the Swede had slightly more airspeed John won by three cuts to one. Next up was Mike Whillance against Henschell (West Germany). Mike won this by four cuts to nil, a convincing victory to start the competition. Last bout of the round was Mike Hember against Janssens (Belgium). The first attempt was a messy affair, Mike being disqualified for losing his streamer hook in a mid-air collision. The officials then realised that the hook was still on the back of the model and thus attached; so they awarded him a re-fly. The second bout was again a bit of a mess, with Mike being cut off his lines at one stage and nearly giving the scorers a haircut. However, Mike won - and the British had got through the first round unscathed. The only other team not to lose any lives were the Russians; so a Team placing of some sort looked on the cards for us.

Round 2: and the first bout saw Beliaev disqualified for leaving the centre circle without informing his opponent. The first British casualty was Mike Hember who was narrowly beaten by Forstner (West Germany). John James had quite a good bout against Disler. Although - once again - John was slightly down on airspeed, Disler's models were not as good and John won by virtue of less ground time, although the cuts were equal at two-all. Mike Whillance was drawn to fly the only female flier in the contest, Monique Wakkerman, sister of Loet and a regular Dutch team member. After a fast aggressive bout Mike won by three cuts to one. At the end of Day 1, seven fliers had lost both their lives and were out of the competition, while five were on one life and on a knife edge too as they could not afford another mistake. John James and Mike Hember finished the day knowing they each had a Russian to fly against in the next round. Both spent the evening trying to decide the best way of winning. John and his

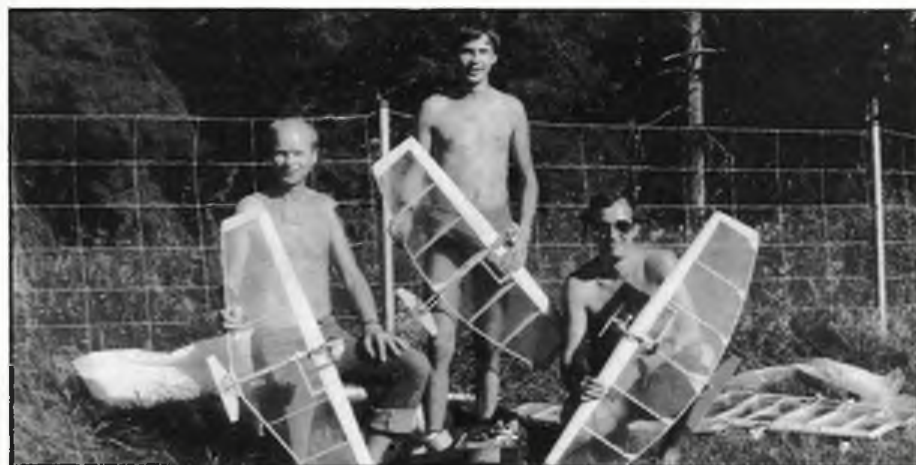
pit crew, having decided the bout was going to be an untidy one, assembled a repair kit with everything they could think of that might be needed to get a damaged model back into the air at any cost. As it happened the bout wasn't as bad as expected and the repair kit wasn't needed. Doroshenko won by two cuts to one but John's pit crew nearly made up the deficit by their superior ground work. After a good start Mike Hember wrote off both his models and lost to an on-form Beliaev, thus making an exit from the competition. Mike Whillance completed a gloomy round for the British by losing to Figus (West Germany) by three cuts to two. Probably the most unlucky flier of this round was Tom van Maorik (Holland) who took four cuts from Necheukhin and then lost because the Russian took five back.

On to Round 4 where John James had a bye whilst Mike Whillance was drawn against Beliaev. Mike put up another aggressive performance taking two cuts from the Russian but was beaten on ground time, making it 'Beliaev 2, Great Britain nil'. Both the other Russian fliers lost in this round, Necheukhin to Loet Wakkerman and Doroshenko to Forstner.

Suddenly the Russians looked a bit jittery and there was speculation that there might not be a Soviet winner for a change. Figus of West Germany was the only flier at the end of this round to still have his two lives intact, so he was one of the favourites to win.

On to Round 5 - only eight fliers left, three of them Russian. John James was lucky to draw Forss (Finland) who seemed to have been one of the more fortunate fliers of the context to have progressed this far, as he seemed incapable of controlling his models, or even of flying combat with two people in the circle. The first thing he did in the bout was to grab John, thus preventing him from moving at all, for which he was warned by the centre marshal. After a very scrappy bout, John won by three cuts to one although he amassed so much ground time he nearly lost! Figus maintained his unblemished record of straight wins by beating Necheukhin by three cuts to one in a fast, clean bout. This also put the reigning World and European Champion out, making Figus the hero of the competition. So only four fliers made it through to the third day...

Speed flier Gordon Isles spend most of his Saturday night reworking some propellers for John James in order to give him a bit more



Above: The all-conquering Russian F2D team. From left to right are Doroshenko, Necheukhin and Beliaev. Who said 'covering'? Separate tails are interesting... Right: If you were at the C/L Nats you'll recognise this lot - the third-place British team. Fliers at back are Mike Hember, 'Whacker' Whillance and John James; pit crew Martin Leeper, John Hammersley and Ernie Burles occupy foreground positions.



airspeed. These duly came out in Round 6 when he had to fly Beliaev. Sure enough the speed was there, but at two-cuts-all and with John ahead on round time Beliaev did an excellent 'bellcranking' job leaving John without any models. His pitcrew managed to make the other model flyable (just) but the lost time proved too much. A protest by the British team was rejected as the FAI jury thought the mid-air was accidental so Beliaev made it three British scalps out of three. Figus lost his first life to Doroshenko, mainly due to the Russian 'win at all costs' attitude.

There were now only three fliers left and the slightly complicated system of sorting out a winner began. All three flew against each other with Beliaev winning by two cuts to one. Doroshenko and Beliaev then flew each other in very heavy rain and used every Russian tactic against each other. It was certainly no set-up; and after a bout where both fliers spent much of



the time either in line tangles or on the ground, Beliaev came out victor and European Champion. Doroshenko then beat Figus to secure second place leaving a not-too-disappointed Figus as the top non-Russian in Europe.

Trying to collect one's thoughts after an event like this is always difficult but once again the Russian supremacy was obvious. They are very fortunate (or maybe unfortunate) in that they spent two months in full-time training before the

event, flying seven bouts of combat per day. This sort of system is very difficult to beat, although, as some proved, not impossible. Russian models are very unstable, and therefore quite hard to fly but the amount of practice they undertake makes it look very easy. However, having watched them for three years now, the rest of Europe seems to be catching up.

Finally, 'thank you' to the pit crew of Ernie Burles, John Hammersley and Martin Leeper for all the flicking; and thanks must go to the organisers for their hard work.

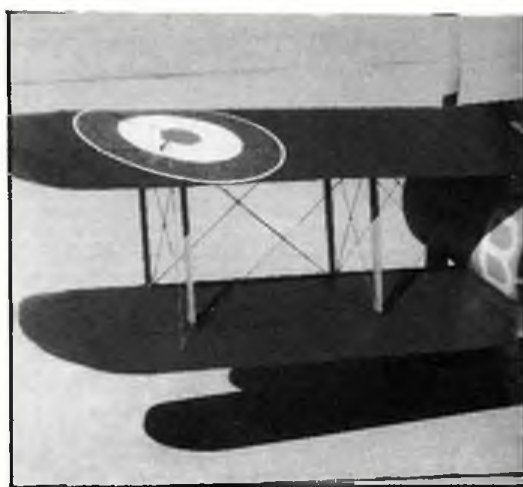
F4B Control Line Scale

Report by Vic Willson

Facilities at Nykoping were good, with a large timber-framed and insulated hangar for the models, offices and lecture rooms nearby for the judges and officials and ample tarmac area for the flying circle.

The insulated hangar no doubt keeps the temperature up during the long hard winter, but it also had the effect of keeping the interior cool during the first three days of 75-80 degree outside temperatures which was most welcome. Having been requested to judge F4B I was mildly surprised to learn that the static judging for both F4B and F4C would be carried out by one team of judges and the flying in each class would be judged by two further 'sets of three'. I also learned that I was to be chief 'flying' judge for this event. Although flattered, I was also concerned that the entire entry of nine (a trio each of Russian, Polish and Bulgarian contestants) plus the other two judges (one Russian, one Polish) spoke probably little or no English; however, at least the possibility of being accused of national bias would be out of the question!

The static judging produced only one surprise; Marian Kazirnod's Zlin 50 placing higher than Vladimir Boulatnikov's AIR 1 because, it was said, of an over-wide fuselage cross-section and a too-glossy finish that lacked realism. Only two of the nine models were new to the international



scene. Both were from Bulgaria, namely Stefan Petrov's Tu-2, complete with a very large torpedo, and Valentin Todorov's IAR-81, a radial engined single-seater with a small bomb slung under the fuselage.

After two days of relative inactivity I was looking forward to the start of flying and at 1pm, on Thursday we commenced the first round.

Conditions were almost perfect, with only a very light breeze and very slick organization to speed things along. All the competitors made qualifying flights. The only drama was Petrov's Tu-2 which ran into the circle, but it was recovered undamaged to fly again.

Most spectacular was the bomb released from Todorov's IAR-81 which shot out of the flight circle more like a rocket projectile. During the model's final flight this missile landed in the model 'park', almost hitting one of the Russian craft!

After the first flying session Boulatnikov's AIR 1 had the highest score just ahead of Pavlenko's Li-2; two very different subjects. The AIR 1 is a fabric and wood single-engined biplane; the Li-2, a Russian-built DC3, an all-metal twin-engined monoplane.

Both demonstrated various flight options, banner tow and release, pilot's hand-waving and release of parcel on parachute in the case of the AIR 1, and multi-engines, retractable undercarriage, flaps and landing lights on the Li-2.

By the second round, flown on Friday morning, conditions were less than ideal, the overcast sky giving way to a heavy downpour halfway through the session with a lively breeze to catch the unwary.

During this round the unfortunate Lech Podgorski had an undercarriage failure during take-off on his venerable Mosquito and although damage appeared only superficial he took no further part in the competition.

World Champion Vladimir Fedosov uncharacteristically experienced engine starting problems with the Antonov 28 and called an attempt, but later produced the type of flying performance expected of this pilot and model. His score put him into a lead which he was to maintain despite being pushed hard by his compatriot Alexandr Pavlenko, the winning margin being just 35 points. After this round Marian Kazirnod with the aerobatic Zlin 50 was seriously challenging the '1-2-3' Russian domination, but unfortunately his third flight in blustery conditions on Saturday morning left him forty points below third place Boulatnikov.

Kazirnod's team mate Heryk Stecyk had a frustrating competition with his heavyweight OV-10A Bronco. He was plagued by engine problems during all three rounds - indeed, his second and third flights were completed on one

F2D Combat

Individual results

		1	2	3	4	5	6	7	8
1	V. Beliaev	USSR	684 W	DO L	340 W	430 W	440 W	484 W	340 W
2	O. Doroshenko	USSR	446 W	286 W	198 W	194 L	300 W	330 W	184 L (486 W)
3	N. Figus	W. Germany	300 W	260 W	300 W	440 W	540 W	336 L	340 L (262 L)
4	N. Necheukhin	USSR	440 W	276 W	740 W	46 L	340 L		
5	T. Fors	Finland	W	112 W	440 W	0 L	258 L		
6	J. James	Great Britain	438 W	406 W	160 L	324 W	140 L		
7	R. Forstner	W. Germany	640 W	190 W	DO L	282 W	72 L		
8	L. Wakkerman	Netherlands	206 L	268 W	W	274 W	44 L		
9	M. Whillance	Great Britain	562 W	478 W	380 L	372 L			
10	T. Van Mourik	Netherlands	226 W	88 L	608 L				
11	B.A. Fallgren	Sweden	20 L	376 W	340 L				
12	M. Hembar	Great Britain	140 W	168 L	124 L				
13	O. Thewissen	Belgium	220 L	360 L					
14	M. Distler	Sweden	540 L	334 L					
15	M. Wakkerman	Netherlands	312 L	202 L					
16	Abrahamsson	Sweden	44 L	174 L					
17	C. Johansson	Sweden	240 L	60 L					
18	L. Hentschel	W. Germany	240 L	28 L					
19	J. C. Janssens	Belgium	20 L	-20 L					

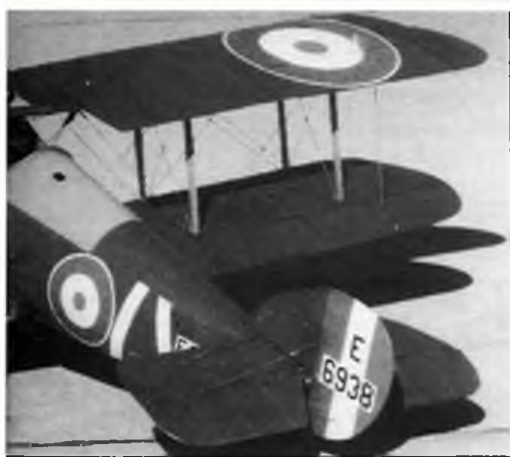
Team results

1	USSR	10 points
2	W. Germany	2
3	Great Britain	0
4	Netherlands	-2
5	Sweden	-5
	Finland	Incomplete team
	Switzerland	Incomplete team
	Belgium	Incomplete team



Top centre: Winner in F4C was Peter McDermott's now-familiar Sopwith Snipe. Above left: More F2D action with Figus (West Germany's hero) versus Fors (Finland). Left: F4B World and Eurochamp Vladimir Fedosov with his An-28. Below: The cockpit of Marian Kazirnod's Zlin 50.





engine.

My fears regarding the language problem were solved by the excellent English translation talents of my Russian co-judge with assistance from the Polish judge Marian Kryzyzan, both of whom suffered my lack of linguistic talents with good humour.

The competition was conducted in a very friendly atmosphere and seemed to be enjoyed by all involved. The organizers deserve high praise for the smooth and efficient way in which the Championships were run. A huge banquet for competitors in all classes, plus officials and local dignitaries (held in an open air castle courtyard) rounded off a most enjoyable visit to Sweden.

F4C Radio Control Scale

Report by Doug Sheppard

Traditionally the UK has provided stiff competition at international events and the team of Manley, McDermott and Reeves, selected from trials held in October 1986, were set to go to Sweden with confidence born partly of their own competence and in some measure because of previous experience in international competitions.

Mick Reeves entered a well-proven Hurricane, a replica of the museum specimen 'The Last of the Many'. Mick has represented his country in either Control Line Scale or R/C Scale since 1970. Terry Manley will be well known to *Aeromodeller* readers as a long time builder and flier of fine free-flight scale models; he was also a member of the UK R/C Scale team that gained top honours at Reno in 1982. His entry, a Handley Page 0/400, had been modified for greater scale accuracy since the trials and really looked splendid complete with leather-coated crew. Pete McDermott's Sopwith Snipe has already gained many honours, including the Model Engineer Trophy, and he had put in some very solid flying practice around the country prior to the event.

No self-respecting Team Manager would voluntarily arrive late for an international event but as I had chosen to travel to Heathrow by bus on the day that an accident on the M4 completely closed it in both directions for six hours I arrived at the airport ten minutes after my 'plane had departed to Stockholm with the rest of the team. Nevertheless, I made it to the venue. We need not have packed out winter woollies for Scandinavia. Nyköping, the contest site, was experiencing a heat-wave and played host to swarms of aggressive mosquitos that attacked Mick Reeves with such vigour that his swollen figures had difficulty in operating the transmitter controls.

The good news concerned the flying site, which was the best I have seen in International competition. There was provision for safe operation, given all possible wind directions; and the scenic surrounding of spruce trees was enough to bring a twinkle or two to the eye of many an old-time aeromodeller.

The entry list lacked Switzerland, the current World Champions, and France, but the familiar names of Avonds (Belgium) and Bergamaschi (Italy) promised healthy competition. There is a very high standard of scale model at International level and it is difficult to single out those of particular interest. Philip Avonds' twin-ducted-fan F15 deserves special attention. Moulded in a lightweight composite material and finely detailed, the model allegedly has a 1:1

F4B Control line Scale

Individual results

			Scale	Round 1	Round 2	Round 3	Total
1	V Fedosov	An-28	USSR	1843	1642	1814	081841
2	A Pavlenko	Li-2	USSR	1839	1740	0	081810
3	V Boulatnikov	AlR-1	USSR	1614	1752	1761	081594
4	M Kazrod	Zlin 50	Poland	1764	1199	1571	08964
5	H Stecyk	OV-10A Bronco	Poland	1521	1291	555	080
6	L Podgorski	OH Mosquito	Poland	1305	1404	0	080
7	S Petrov	Tu-2	Bulgaria	885	1070	998	08881
8	N Marinov	LAC-7	Bulgaria	793	890	909	081013
9	V Todorov	IAR-81	Bulgaria	954	523	572	08610

Team results

1	USSR	10708
2	Poland	8856
3	Bulgaria	5325

F4C Radio Control Scale

Individual results

				Bonus %	Scale	Round 1	Round 2	Round 3	Total
1	P. McDermott	Sopwith Snipe	GB	15	1803.5	1593.9	1639.9	1766.4	3569.90
2	P. Avonds	F15 Eagle	Belgium	20	1814.4	768.0	1672.8	1424.4	3487.20
3	C. Bergamaschi	SM79	Italy	25	1555.5	542.5	1152.5	1676.3	3231.75
4	M. Reeves	Hurricane IIC	GB	10	1689.0	1386.0	1346.4	1416.8	3105.80
5	H. Kolberg	Sopwith Tabloid	Norway	25	1309.5	1481.3	1451.3	1688.8	2978.25
6	H. Wisst	SE 5a	W. Germany	15	1664.0	1167.3	995.9	814.2	2831.25
7	N. Gallen	BE 2	W. Germany	15	1617.5	1004.0	1030.4	1206.3	2823.85
8	K. A. Eloffson	Zlin 526AS	Sweden	10	1218.0	1201.2	1466.3	1551.0	2769.00
9	T. Manley	HP 0/400	GB	25	1543.5	1206.3	1135.0	111.3	2749.75
10	R. Lindberg	FW 190	Finland	10	1131.0	1442.1	1545.5	1318.9	2676.50
11	J. Pikkussari	Bristol Bulldog	Finland	10	1356.0	917.4	1038.4	1315.6	2671.60
12	S. Fredriksson	Boeing Stearman	Sweden	10	1339.5	1101.1	1017.5	1328.8	2668.30
13	J. Helasuo	Bu Jungmeister	Finland	10	1314.0	1334.3	284.9	365.2	2648.30
14	F. Rassmussen	B-N Islander	W. Germany	10	1156.5	1235.3	1196.8	1419.0	2575.50
15	W. Justus	DH82A Tiger Moth	W. Germany	10	1282.5	786.5	903.1	1028.5	2311.00
16	A. Landi	Miles Magister	Italy	5	972.0	1056.3	869.4	1205.4	2177.40
17	F. Vadovello	SF 260	Italy	10	1182.0	954.8	699.6	663.3	2136.80
18	P. Munsberg	Pitts S2A	Denmark	10	972.0	871.2	979.0	974.6	1951.00
19	A. Goddet	Stampa SV-4	Belgium	10	1002.0	0.0	672.1	0.0	1674.10
20	B. Kallstrom	Klemm 35	Sweden	5	0.0	0.0	0.0	0.0	0.0

Team results

1	Great Britain	9425
2	Finland	7996
3	W. Germany	7966
4	Italy	7545
5	Sweden	5437
6	Belgium	5161
7	Denmark	4526
8	Norway	2978

power/weight ratio. Currently at a disadvantage because of weight limitations which prevent him from fitting tuned pipes for competition the model is rather noisy and therefore loses realism points; the front u/c leg is also rather shaky in operation. Both these faults will be rectified next year when the weight limit is increased.

Static judging over, we found ourselves occupying second, third and sixth places with Peter's Snipe in second place to Avonds' F15; an indication of the standard of the latter's model...

We now looked forward to the flying with even greater confidence. At the end of the first round we occupied first, third and seventh place with all three models still sound in wind and limb. There was, indeed every possibility that flying scores could be bettered but Mick developed an elusive fuel feed problem led to those manoeuvres involving positive 'G' being poorly shaped. Terry Manley never really flew his model in the way he would have wished. The large biplane undulated in flight, especially in turns. This was thought to be a result of Terry's decision to couple aileron and rudder to overcome considerable adverse yaw. Nevertheless, he performed a fine touch-and-go and the engines ran faultlessly throughout.

As the third round commenced it was obvious to spectators and competitors alike that top individual honours would go either to Pete McDermott or to Philip Avonds whose second round flight, carried out with great panache had put him very slightly ahead. The mental pressure on Peter as he started his final flight must have been very considerable. Excitement was heightened when he called an attempt after a deviating take-off because we could not afford even one less-than-best manoeuvre. I wondered at the time if my stomach would ever recover its normal composure but the next 'dawn-patrol' type take-off was followed by a bombing attack that brought great applause. A series of accurate

compulsory manoeuvres terminating in a copybook three-pointer slap in the middle of the circle showed the determination that is characteristic of the man.

Who would win? The crowd was excited and my adrenalin was flowing in full spate. The announcer's voice silenced the speculating throng 'McDermott wins by eighty points'!

I did not envy the flight judges. It is very difficult to distinguish between the performances of the top competitors, and the back-seat pilots were evenly divided in their opinions. Belgian official protests at the result were cast aside by the jury but not before some unpleasantness had been generated. One can sympathise with Avonds' disappointment. He had fought a lone ducted-fan battle for the last three years and his model flying is impressive by any standard.

I hope that we shall see other ducted fan entries in both Nationals and International competitions now that the rules give them more than a fair chance of success. F4C must embrace the whole gamut of flight if it is to continue to attract modellers and public alike.

We have pleasant memories of Sweden, even if the beer is £2 per half-pint. The organisation was excellent, the hospitality endless, and if the airline-type packaged budget meal was a disappointment, the ensuing frivolities with old friends was not so!

Opinions differed as to the quality of the banquet; over £20 bought you this offering. Judge for yourselves.





THE BACKGROUND to this event is interesting and worth summarising. Celebration of the Golden Jubilee of Wakefield contests started three years ago with a 'repeat performance' arranged for the original venue of Warwick Racecourse. The idea was good and by-and-large the whole affair was a great success amongst the Vintage fraternity.

This year was to be rather special as it commemorated Emmanuel Fillon's 1937 win. Consequently when moves to celebrate this anniversary were first announced it was expected that the event would be held in France. Originally scheduled for a venue near Paris (and just before the F/F World Championships) the Jubilee contest was switched to Beauvoir some 300 miles West. This gave 'organisational problems' and the French 4A Vintage group eventually announced that they would have to cancel the event!

Time was short, but the British SAM 35 movement was quick to act. They 'took over' the event and announced that it would be held on the expected date - but in England! Warwick Racecourse was to be the venue, just as in 1984. This site has advantages, being historic, picturesque, and centrally located - but it is really too small for what was being attempted. Nevertheless the scene was set.

Heading: Stateside visitor Dick Sherman prepares his 1936 Copland in the flyoff drizzle as Brian Yearley holds. Placed 3rd in '4oz'. Below left: '8oz' winner Mark Hinton about to light the fuse. 'HMG' on wing acknowledges support with prizes. Below: Second in 'pre-37', Phil Ball launches his Ying on one of its maxes. Below right: 'Pre-37' winner Fred Chapman ROGS his Northern Arrow in the flyoff with Peter Harvey at the stopwatch. Below far right: Chris Strachan's neat '36 Copland dropped just one flight.

Anniversary Antics a



Ready to go...

The turn out proved to be good. This type of event seems to be what the vintage enthusiast wants - a spectacle in which he can participate without feeling obliged to win! Moreover the special nature of this event attracted transatlantic participants; Dave Baker and others being host to a substantial party of Americans. Their presence made the meeting truly international. There were also lots of modelling celebrities present - famous names from the past, and present day experts.

Even the weather played its part, the meeting being favoured with two good flying days. Those who attended for the weekend described Saturday as calm, particularly in the evening, and ideal for testing. The overnight weather forecast talked of rain, but Sunday at Warwick started calm and dry - notwithstanding the rain only a few miles away!

The contest organisations had all the trimmings: tent and scoresheets, a full time CD and assistants (Colin Watts and family) and even special take-off boards. Actual operation was, perhaps, a little informal, even ad-lib - but it suited the situation and the audience admirably.

... and away!

Flying started with a bang - or at least a very convincing demonstration of what could be done. The contest was not flown in rounds, but the CD apparently set a two-minute max for first flights, with the options of changing it for the rest - depending on how things went! What might have been expected, happened almost immediately. Chris Strachan was ready early, flew as soon as allowed in flat calm conditions, and was back within minutes wanting to fly again! Consternation! The only possible solution

was to keep the two-minute max throughout. Chris, in fact, completed his treble within half-an-hour, and before the breeze developed. Not that it ever got windy - but two minutes could and did put many models out of the racecourse, and into the housing estate alongside. It wasn't the best of wind directions, but it was hardly a surprise to those who had attended before.

The site limitations certainly had effects on the scores. There were many stories of early D/T's (some ludicrously short) as well as the four-minute-odd flyaways. Obviously, the Tomy Toy Timer still awaits discovery by SAM 35 members - or would they consider it too great an anachronism? There were those who wouldn't risk their models (admitted by Laurie Barr) not to mention those who found one flight into the houses more than enough.

Flying in general was patchy, varying from good to awful. Many models appeared untrimmed and hence incapable of realising their true potential. Even the American entries suffered in this way - an aspect I found surprising. A predictable trouble spot came from the insistence on ROG. Although strongly advocated by some people for its nostalgic appeal, this type of launch is not everyone's forte. Many launches would have incurred instant disqualification from old-fashioned timekeepers who knew what 'unassisted' meant! They certainly would not have accepted under-arm follow-throughs - or worse. The opposite extreme was demonstrated by those who released propeller and fuselage simultaneously so as to let the model roll before it started to move. This does undesirable things to the initial power pattern.

Many models lacked power, and crept rather than climbed into the air. Tired

rubber and gross under-winding seemed contributory! Conversely there were entrants who did not suffer this way - and who produced either spectacular climbs or equally spectacular crashes. It might be kinder not to quote examples of the latter! ROG was not made easier by lack of crowd control. There were too many people too close to the take-off boards - an unnecessary hazard for the fliers. Just look at the cluttered background to some of my photographs.

Who won what?

Nevertheless entries were high, 43 in the 8oz class, and 36 in the lighter (4oz) category - with around 33 and 24 actual scores respectively. This is a good response on any count. Surprisingly (or not, depending on your view of the contestants) there were only three trebles in each class. Of course there were hard luck stories, and a number of near misses (including Brian Yearley, and American Joe Macay both just a second short) - but surely three two's can't be that hard; or maybe it was hard back in the golden days of aeromodelling!

The actual flyoffs were delayed somewhat by a presentation to Bob Copland and Chet Lanzo, the latter still fragile after recent hospitalisation. The souvenirs came from Dave Baker but were presented by Jean-Marie Piednoir, his counterpart in the French Vintage group. Who remembers the story of Lanzo and Copland swapping models after 'The Wakefield' in America? Since no-one had qualified for both flyoffs, they were held simultaneously in the same 15-minute slot. The weather had deteriorated somewhat - going dull with a threat of rain. Nevertheless the wind was still light. First away was Fred Chapman with an elderly Northern Arrow, flying in a steady if

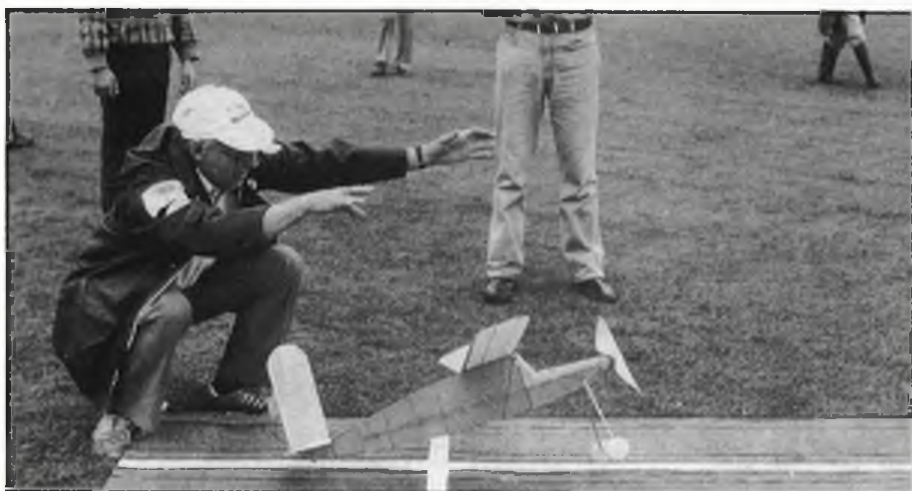
at Warwick

The historic Racecourse on 9th August was the setting for the 50th anniversary of the 1937 Wakefield event. John O'Donnell reports



November 1987





hardly spectacular fashion for a respectable enough 1:56. This was in the 4oz class; and transatlantic opposition came immediately from Dick Sherman. His model never looked right, making two or three tight circles before dropping the nose and spiralling-in to end his hopes. Mark Hinton was next to the take-off board, got in position, and waited, and waited. Eventually he released his Yankee IV for a good initial climb, only then to power-stall very badly. This left the model at low altitude - from which it climbed away on a longish motor-run for a useful 2:47. The air must have been good, and waiting on the board effectively kept it to himself (not that the opposition had to use the boards supplied).

Chris Strachan followed with a similar model, but with a much faster climb. There was a slight power stall to mar the pattern - but the model reached a good height, albeit at the price of a short run. However the air was now poor-to-mediocre and Chris scored only 2:25. Phil Ball flew at much the same time and fared no better as regards lift. His Ying recorded a much below-par 1:43 to give victory in the 4oz class to Fred Chapman. Finally William Beales arrived with his hastily repaired Korda. He had suffered badly with the houses, having irreparably damaged his first model and subsequently breaking the wing of his reserve. Quick repairs and soggy tissue did not help the trim, and his flyoff could barely approach the minute.

The winning models are worth describing. Fred's Northern Arrow was three years old - and well over weight at 6ozs ready-to-fly. It used 700 turns on 8 strands of 1/4in FAI rubber - also far from new. All his flights landed in the field despite being flown without D/T. Perhaps

Top: Chet Lanzo himself was 10th in '8oz' with a Lanzo Duplex. Above left: Andy Faykun fits the noseblock to the '36 Copland as George Hollingdale assists. Left: The Gordon Light Wakefield is unmistakable. Ray Haywood's, seen here, was fifth in '4oz'. Below left: 1936 British Team members Bert Judge (left) and Denise Fairlie were honoured with a special presentation, as were Chet Lanzo and Bob Copland in photo below.



this is what vintage flying is really all about! Runner up was Phil Ball, flying the Ying design from out of Zaic's 1935-36 Yearbook - minus motor-stick but with a Tomy Timer for D/T.

In the 8oz class Mark Hinton made a real effort with a specially built and light Yankee IV, not to mention the numerous phone calls he had made to those whom he thought could give good advice! His first flight hit the grandstand and slid off into the caravan park. A very badly (and peculiarly) broken wing took much repairing - but it was obviously worth the effort. Chris Strachan's version of the same design is older and heavier - and has a shorter, faster climb. Indeed, it went on to win the 'climb contest' at the Old Warden Vintage Weekend. A close comparison of the two models would be interesting as the 'interpretation' is obviously different. To be fair, the SAM movement is much more liberal on such matters than the SMAE - and who really knows what the original models were like?

Prizes!

The prize-giving coincided with slight drizzle - and was preceded by another presentation. This was to pre-war (1936) team members Denis Fairlie and Bert Judge who had come to see how the world has changed (or is it how the fliers have aged?)

The actual prizes followed, with crystal glassware awards being augmented by generous quantities of HMG dope courtesy of the manufacturers. All was very well received - but this was not the end. There were souvenirs for everyone! The French 4A group had prepared a presentation booklet with three-view drawings of 22 models entered in the 1937 event, all produced by Fillon himself. Representative Jean-Marie Piednoir came with 100 copies - one for everyone - and an orderly queue formed like magic. A marvellous effort, and a real collector's piece.

Finally mention must be made of the supporting events. A power contest for replicas of le Kid, and a vintage glider event drew very little support. The latter was run by the entrants and saw Peter Whitworth's Hyperion oust the other two 'proper' contest fliers. There were other glider fliers present but they declined to compete. The power event was held on the Saturday and was apparently evaluated on 'impression' marks rather than any objective system. Nevertheless it had a real International result, an American winner in Mik Mikkelsen.

Really I can only conclude that these extra events are little more than a distraction from the primary contest - and hence it would be better to concentrate everyone's efforts and attentions on the Wakefields. Certainly that is what the meeting was all about. It wasn't perfect, and the site was marginal - but it was undoubtedly a real success. I'm sure a lot of people must be wondering about 1988 - where, when and by whom? Cahill's 1938 wip in France leaves us with a lot of choices when it comes to next year's arrangements...



Terry Rose's view... 'Legionnaire Erasmus Fullon joined - October 1937!'

SAM 35 Vintage Wakefield Event: Warwick, 9th August 4oz (Pre-1937) class (37 entries)

1	F. Chapman	Northern Arrow	2.00	2.00	2.00	+1.56
2	P. Ball	Ying	2.00	2.00	2.00	+1.43
3	R. Sherman (USA)	36 Copland	2.00	2.00	2.00	+0.11
4	J. Macay (USA)	Mayfly II	2.00	2.00	1.59	5.59
5	R. Haywood	Gordon Light	2.00	2.00	1.53	5.53
6	K. Horry	36 Copland	2.00	1.45	2.00	5.45
7	M. Mikkelsen (USA)	Ying	2.00	2.00	1.44	5.44
8	C. Strachan	36 Copland	1.40	2.00	2.00	5.40
9	R. Alban	Northern Arrow	2.00	2.00	1.37	5.37
10	C. Lanzo (USA)	Lanzo Duplex	2.00	1.34	2.00	5.34
11	P. Michel	Lanzo Duplex	2.00	2.00	1.27	5.27
12	T. McCoy (USA)	Lanzo Duplex	2.00	1.42	1.35	5.17
13	B. Jukes	Gordon Light	1.19	2.00	1.43	5.02
14	K. Cooper	Lanzo Duplex	1.40	1.35	1.45	5.00
15	T. Hopgood	36 Copland	2.00	1.22	1.23	4.45
16	A. Richardson (USA)	Gordon Light	1.29	1.07	2.00	4.36
17	D. Beales	36 Judge	1.32	1.18	1.25	4.15
18	M. Hetherington	Bob Jeffery	1.49	1.26	0.55	4.10
19	E. Novak (USA)	36 Verdier	0.44	1.12	1.52	3.48
20	A. Gallus (USA)	36 Verdier	0.09	1.45	1.34	3.28
21	A. Faykun (USA)	36 Copland	2.00	1.15		3.15
22	B. Faulkner	36 Judge	0.39	1.43	0.53	3.15
23	D. Fairlie	34 Fairlie	0.39	0.53	0.52	2.24
24	C. Yost (USA)	36 Copland	1.09	0.08	1.00	2.17
25	J. Adams (USA)	36 Lanzo Duplex	2.00			2.00
26	A. Judge	36 Judge	1.10			1.10
27	R. Copland	36 Copland				
28	R. Langdon	Gordon Light				
29	K. Hinton	36 Copland				
30	G. Spencer	36 Copland				
31	R. Parham	36 Copland				
32	M. Myers	Verdier				
33	L. Barr	36 Copland				
34	Martin	Gordon Light				
35	J. Jella	Lanzo Duplex				
36	J. Bennett	36 Copland				
37	M. Woodward	36 Copland				

8oz Class (41 entries)

1	M. Hinton	Yankee IV	2.00	2.00	2.00	+2.47
2	C. Strachan	Yankee IV	2.00	2.00	2.00	+2.25
3	W. Beales	Lokvogel	2.00	2.00	2.00	+0.58
4	R. Yearley	Yankee IV	2.00	1.59	2.00	5.59
5	T. Hall	Korda	1.45	2.00	2.00	5.45
6	M. Kemp	Hereward	2.00	1.48	1.54	5.42
7	A. Beales	Boyles Wake	1.41	2.00	2.00	5.41
8	R. Parham	'50' Gutteridge	1.33	2.00	2.00	5.33
9	R. Brownson	Korda	1.26	2.00	2.00	5.26
10	R. Thompson (USA)	Fillons Wake	2.00	1.38	1.48	5.26
11	R. Langdon (USA)	Strucks Flying Cloud	1.24	1.48	1.55	5.11
12	D. Goddard	'40 Gutteridge	1.33	1.41	1.55	5.09
13	G. Stephenson	Korda	2.00	1.34	1.31	5.05
14	J. Macay (USA)	Casonas Champ	2.00	1.43	1.16	4.59
15	J.M. Piednoir (France)*	Wild Goose	1.43	1.49	1.13	4.45
16	B. Jukes	Korda	1.17	1.35	1.60	4.42
17	P. Michel	GB3	1.52	1.39	1.09	4.40
18	R. Alban	Zombie	1.04	1.09	1.41	3.54
19	K. Horry	Horry's Wake	1.52	2.00		3.52
20	F. Chapman	Gypsy	1.12	1.13	1.25	3.50
21	M. Hetherington	Adams Wake	0.56	1.12	0.52	3.00
22	M. Fryer	Gypsy	1.17	0.34	0.55	2.46
23	J. Adams (USA)	'50 Aarne Ellila	1.25	1.18		2.43
24	G. Johnson	Zombie	1.19	1.13		2.32
25	A. Faykun (USA)	GB3	1.17	1.02		2.19
26	C. Yost (USA)	Fish Contender	1.08	0.02	0.54	2.54
27	R. Copland	GB3	2.00			2.00
28	D. Beales	Simon	2.00			2.00
29	E. Roberts	Jaguar	2.00			2.00
30	E. Rodlern	Korda	1.41			1.41
31	L. Barr	Vansteed				
	T. McCoy	Hi Climber				
	P. Thorp	Larsens Victory				
	B. Horsley	Vansteed				
	M. Myers	'37 Kansas Winner				
	F. Holland	Zombie				
	K. Cooper	Fletchers Surprise				
	A. Richardson	Korda				
	J. Lawson	Simon				
	R. Prentice	'41 Gutteridge				
	M. Martin	Jaguar				

*Flew 'proxy' for V. Dubery

Concours d'Elegance

R. Thompson (USA)

1937 Fillon Wakefield



OK! HERE'S HOW to entertain yourself for a couple of evenings without being arrested or waking up with a head like a piledriver and a mouth like an ash tray. You just sit down with a few lumps of wood and plastic and build yourself a snappy little control-line biplane - at least, that's what I thought; hence Kwidsin.

This latest little horror came about as a result of my trying to get rid of some scrap wood in the longest possible time, whilst avoiding the local, and to provide myself with something to play with. The design criteria were fairly simple; it had to look good, fly well and be entertaining to build. I started out with the idea of putting to use one of my vast collection of PAW 1.49s but as the plane grew I realised that this power would be too low. I was left with an interesting choice; PAW 2.49 or Super Tigre 46. As I was fresh out of glo-fuel it had to be the 2.49.

To the board!

As with all my models I started with the wings which were designed to be as light and rigid as possible. The sweepback on the top wing was, I must confess, a bit of an afterthought but the model looked naff without it. Construction is best attempted by first assembling the L.E. TE, tips and diagonals flat on the building board (using PVA or any other relatively slow drying glue so that you've got time for a

cup of coffee) and adding the ribs afterwards.

Next came the tailplane which is a rather mundane construction, as such things often are. Once I had created these essential components they were juggled around on matchboxes until they looked

Build James Barry's cheerful control-line stunt biplane for 2.5cc motors

approximately correct, relative to reach other; and lo! and behold I had some fuselage dimensions. The next problem was to come up with a shape that wasn't just a nasty, glorified box. This was accomplished with a few cans of Newcastle's famous brew, a Stanley knife and a big piece of sandpaper. There are a few points that some of the more astute

Two views of Kwidsin - great fun for the C/L circle. 'What's VFM?' you ask... Value for Money! Try one and see what we mean...

readers may be thinking about in connection with this engineering marvel; i.e., why aren't there any doublers and why isn't there any wood in the tail end. Well, long pause for breath, the tail is the wrong place for nasty, heavy lumps of wood and I just plain forgot about doublers. Subsequent crashes have proved that the fuselage is strong enough, so not to worry.

Final assembly is best carried out by covering the wings separately, sticking the tail, fuselage and lower wing together and allowing to dry. Once this has been accomplished all concentration can be directed to gluing the top wing on 'square'. As you may have gathered from the photos I'm a bit low on concentration. The original's fuselage and centre section is covered in Solartex (does anyone else get irritated by diesel fuel ruining their Solarfilm centre sections?) and Solarfilm was used for the wings.

Does it go?

As for flying - mine did on 45ft. lightweight lines with the CG as shown so if yours doesn't you've probably got it too heavy in the wrong places. Mine weighed in light at 13oz. which is just as well considering the wing area (or lack of it). Manoeuvres? Well, if you like loops, bunts, eights, wingovers and relaxed fun you ought to build a Kwidsin. Remember - it's cheaper than the pub...



FLAPPERS, WINGS

AND OTHER WONDERS

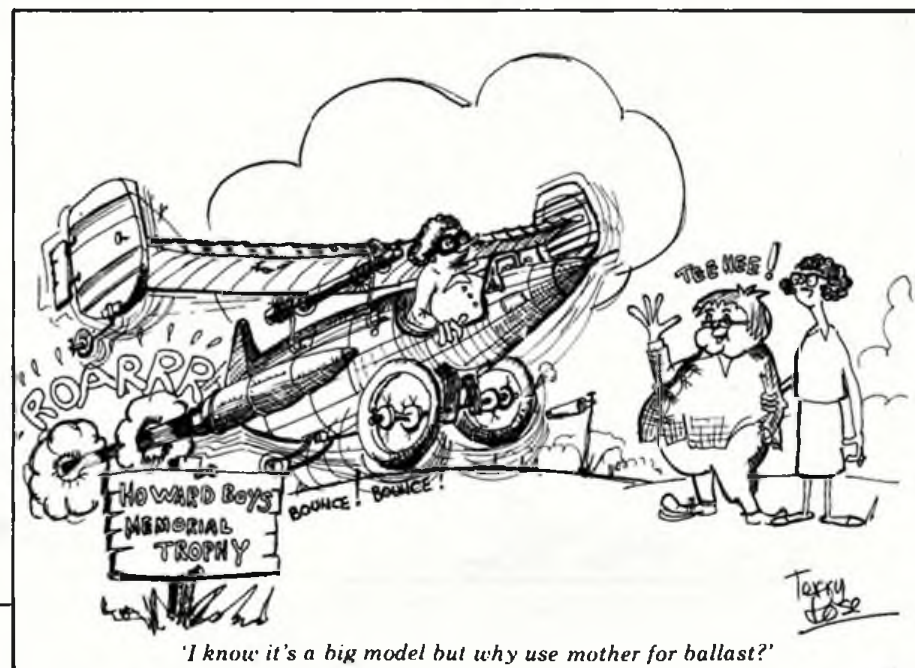
Our Vintage Weekend at Old Warden played host to the 1987 Howard Boys Memorial Trophy - and a good time was had by all...

AFTER THE somewhat impromptu arrangement for location of the 1987 Howard Boys Memorial it was all the more surprising that no less than 36 models were entered at Old Warden on Saturday, August 15th. They came from all corners of the country (plus some refreshingly unorthodox models brought over from Germany by Herr Mink) and they ranged from Simon Rogers' replica of Schwinguin, a Lippisch ornithopter to a superbly detailed R/C scale Flying Flea by R. Warrington. While the majority of entries were flying wings, we were treated to such delights as the Malmstrom Mite and Martian, an entertaining Flying Carpet, various Jetex powered experimentals and Kevin Wallace's triple-wing concept. Points were given for adherence to the Howard Boys 'spirit', quality of construction, originality and ultimately, flight performance. It is always difficult to match control-line, free-flight and radio control on an even basis but Jim Boys and Mike Whittard managed a very fair and well-received result. There were six very close placings of which Sebastian Robinson's free-flight Canard Velivole with its excellent duration performance was alone amidst a rash of R/C wings.

Bill Hockey's Tex Rickard Wing proved the victor by a slender single point. The unusual model employed pivoted tips for control through the three axes, putting up a fine performance. He was closely rivalled by previous winner A. Mason and his beautifully constructed Dactyl which seemed as though it could perform the entire aerobatics schedule in the space of half a football pitch. Also worthy of a special mention, though not actually among the top finalists, were George Bushell's two Joeys. Each a long-span electrically-powered flying wing, they amazed the thousands of spectators by soaring on power to speck height and hovering like tailless buzzards over the field throughout their ten-minute flight spot; and when commanded to descend, how they did so, leading edge down and at javelin speed, was a real eye opener.

With such support for the event, the time has now arrived to place it firmly into the 1988 Old Warden programme, most likely in conjunction with the Golden Era meeting. More time and space could then be given to what is becoming a premier fun event of the year - not to be taken over-seriously but in which every participant gets special pleasure just for being involved. Interestingly, the split of entries was nineteen free-fighters, fifteen radio controlled and just two control-line.

Right: Bill Hockey, apparently taking part in a Masonic ritual here, looks happy to receive the Trophy from Jim Boys. Bill's Tex Rickard flying wing performed spiritedly to win by just one point. Event co-judge (with Jim) was Mike Whittard. Below left: All eyes on the unorthodox as Kevin Wallace launches his Dart-powered X-wing creation. We're after the plans! Below right: 'MC' insignia denotes Mike Conrad whose Manx Monarch is seen making a bumpy arrival.



At right: One that we didn't see...

November 1987

'I know it's a big model but why use mother for ballast?'

THINK EFFICIE

**Move those tails for
utmost performance,
says Dave Hipperson . .**

IF TRIMMING AND FLYING Open Rubber models has got a bit tame for you, liven things up with a Variable Incidence Tail System! A year or so ago I would have hardly dreamed of saying such a thing, having regularly voiced my abhorrence of such devices on rubber models of any kind, let alone Open designs. Were we perhaps to have access to better quality rubber strip, even of the same standard as a few years ago, then I would have to argue that such gadgets are superfluous. I have always believed that the most efficient and practical way of powering any rubber model was with as long and as gentle a

power run as possible. Indeed, when using Pirelli, which feeds in a substantial percentage of its power throughout the cruise as well as during the first burst, my rule of thumb was to aim for a prop run around one-third of the anticipated 'still air' duration, extending that slightly when considering the lighter and slower-flying classes. Thus, an F1B would have a run of 55-65 seconds, a CDH 45-50 seconds and a small Open Rubber model about 100 seconds, with larger 'flyoff' models having anything up to, dare I say, 180 seconds prop run!

We don't live in an ideal world. Our rubber now is of different characteristics so we must learn to use it efficiently rather than dream of the past. On the brighter side, today's rubber is only very slightly less efficient in energy storage and return than is Pirelli, the crucial difference being that it delivers more of its power immediately upon release of the prop, leaving less to drive the cruise. This increased phase of power — some would say 'vicious burst' — can do horrible things to the trim of a model set up to climb nicely on cruise.

VIT with Coupes and Wakes

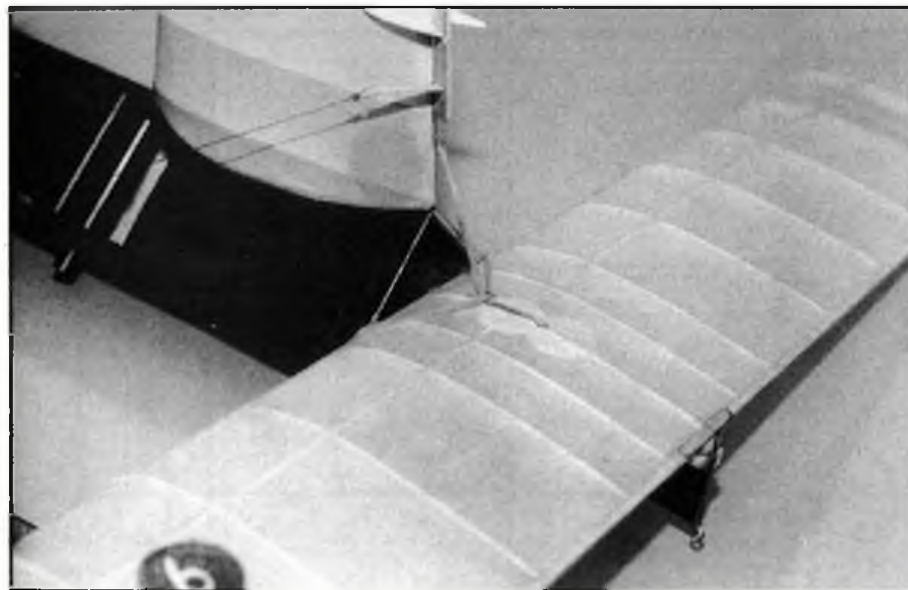
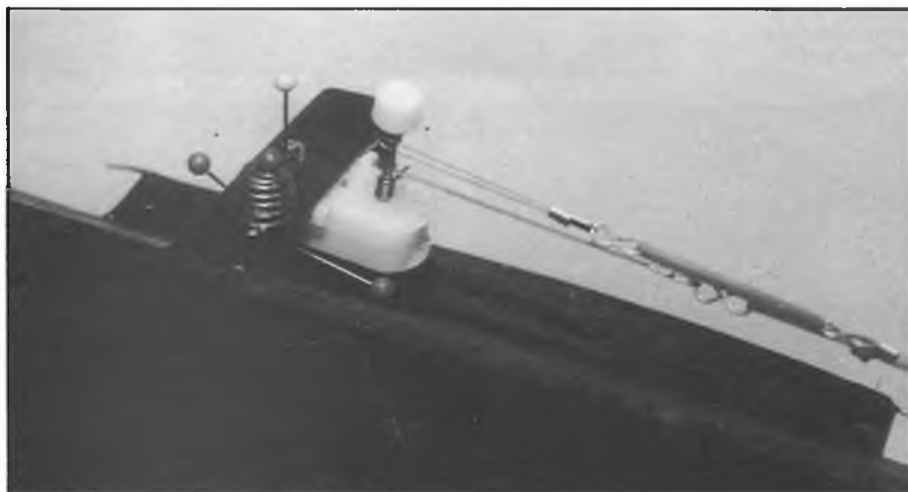
My experiments started eighteen months ago and were never intended to be applied to other than CDH and F1B models where the gain was expected to be at a premium; indeed it was but—in the case of CDH in particular — it was very much more difficult to fly effectively than had been envisaged. The gain was there, particularly when used in conjunction with a DPR (Delay Prop Release) system, but considerable practice with angle of launch was necessary; and it was a technique which had to be varied to suit the wind conditions. The problem was that the very limited power and light weight of the CDH means that it decelerates quickly even after a vigorous launch on full turns, so if the tail incidence changes and rudder movements occur at an awkward moment there is insufficient power and forward momentum to carry the model through the manoeuvre and there can be a mush or stall, which rather nullifies the height gain. Flying these models and, to a lesser extent, similarly-equipped F1Bs is a practiced art, although the Wakefields are a much easier prospect as they are heavier, more highly powered and generally fly faster.

I won't dwell any longer on these two classes as the application of VIT to them is hardly new. Suffice it to say that the amount of incidence change and the rudder timing I use is not what is currently conventional; at least not in the UK.

Next, Open Rubber . . .

It was during these experiments and at a time when I was fitting timer D/Ts to my rough weather Open Rubber models that I thought I might be able to learn a bit more with a VIT set-up on one of them. Anyway, it would be light relief! The Skywalker 60s were all flying satisfactorily on FAI Supplies rubber but to keep the length of the run within reason — 90 to 100 seconds and fairly punchy at that — it had been necessary actually to shorten the motors to compensate for the very protracted cruise from the rather weak last half of the power run. This of course exaggerated the problems in taming the burst and although the models could be trimmed so as not to loop all over the sky it only took a breeze on launch to destroy the first part of the pattern, which meant that the model might come close to hitting the ground. Even CDHs launched correctly on full turns had shown some ability to climb almost vertically, at least for a while, when using VIT. I thought it might be a feasible way of trimming the first burst on the Skywalkers, with the added advantage that as the power goes on so

Top left: 'VIT/AR' line is attached to the top release pin on the Tomy timer shaft. That prominent vertical pin prevents timer movement while lines are set. Left: At 'power' position the rudder is held 'left' and tail TE 'down'. Opposite page, top: 'Cruise/glide' settings. Timer has released VIT/AR line. Rudder is 'right' and tail TE has been elevated by 0.20in.



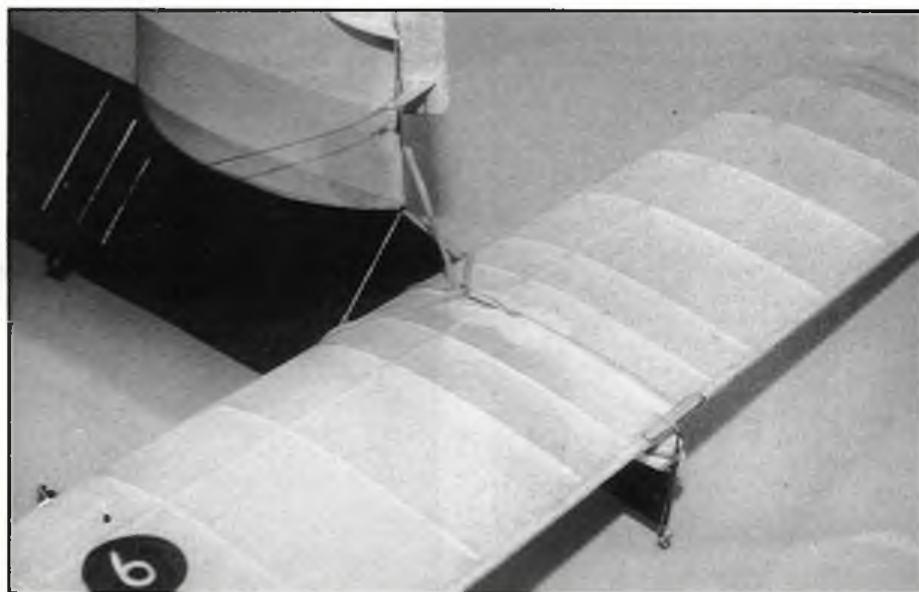
NTLY~TRY VIT!

much longer timing of incidence changes should be less critical.

I shan't bother quoting degrees of incidence change — it's easier to understand if I just refer to the distances the trailing edge of the tailplane rises or is depressed during the VIT phase. When I refer to Auto Rudder I am *not* talking about something used to trim the glide turn. My interpretation of 'Auto Rudder' in this case is a power rudder that operates during or at the end of the VIT period. It should also be pointed out that here we are adjusting devices designed to handle the full torque of the motor; so it follows that full turns or at least full torque is required to trim this phase. Up until that point is reached the model is adjusted in the conventional way, using up to about 80% turns for a positive climbing cruise and stable glide.

VIT first . . .

All activations have to be triggered from a Tomy timer. My initial experiments were simply to run a VIT line off the release pin that controlled the D/T (Fig 1). First flights were attempted with 1/16in. 'down' on the tail trailing edge, held for five or six seconds. Results were less than promising — a steep launch would just produce an ungainly but larger loop or wing over if released to the right of the wind. Next step was to try deflections similar to those that I was using on the CDH models — almost 3/16in. below the setting for the cruise and glide phase! On full turns and with the timer set for four or five seconds the model was released steep; I was expecting a bunt (negative loop). I got one! I also got a very nasty right turn and came within a whisker of stacking the model at some velocity.

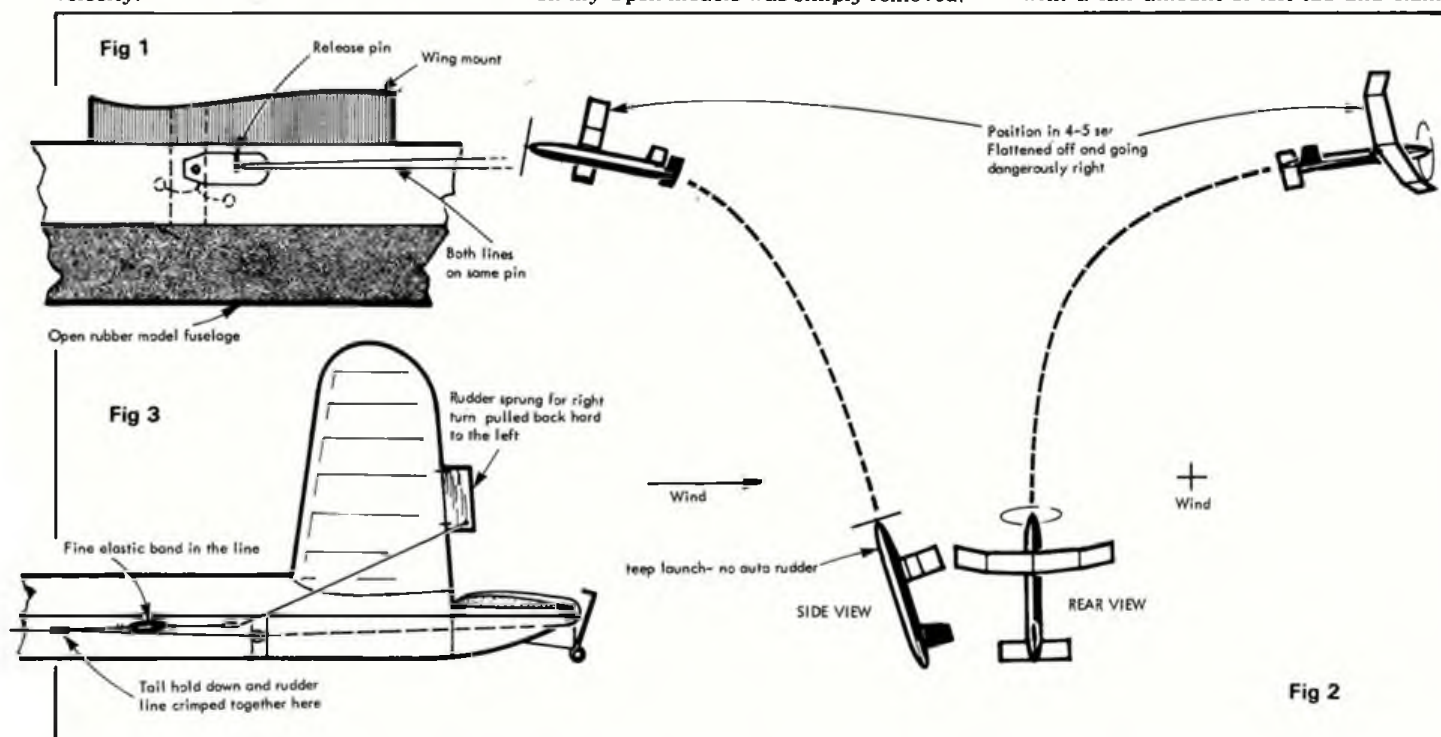


Adding auto-rudder

Having survived that it was increasingly obvious that I wasn't going to be able to use the system without a power rudder. Loath to further complicate, I readjusted the VIT to give about 1/8in. movement, this being the set-up actually used at the first Area Open Rubber event of '86; my first contest flights with a VIT-equipped model and a milestone for me. As I have stacks of these Skywalker 60s this particular one was left in its usable but not altogether satisfactory trim and another was equipped with VIT and AR (Auto Rudder). The balsa trim tab that appears on my Open models was simply removed,

enlarged, hinged, tensioned to the right and made to stop in the position where it most closely approximated to the right-hand-turn trim of the old fixed tab. It could then be held over to the left for the power phase. To simplify linkages the line from the rudder was attached to the tail hold-down line via a crimped piece of alu tube so both would activate together just for the test hops. The theory was that if the idea showed promise I could split the timing of the functions later for fine tuning of the trim (Fig 3).

Once again flights were made on full torque (short, new motors were used) and with a fair amount of left tab and 0.2in.



'down' at the trailing edge of the tailplane. The model was launched steeply and the result was a trajectory which very gradually went from near vertical 'over the top' to flat; at the same time it leaned right and accelerated until the VIT and AR came in. When these activated the model swept away in a positive climbing turn; very exciting and with no stall despite the two functions operating together. The final step was to put much more left tab on the power phase and a little bit more positive on the tail, which by now was at nearly 1/4 in. The VIT period was shortened to four or five seconds, and the model given a steep launch. That's the trim. In dead calm the model will climb almost vertically, slowly bunting-off dead straight ahead. As the speed builds up, with the climb flattening to 45 degrees or so the VIT/AR come in together and pull the rapidly moving model up into the climbing cruise portion of the flight — just as it would fly if you held the model for 4-5 secs to let the burst go and then threw it fairly firmly at 45 degrees. The difference is that here it has climbed 100 feet or so already! Even if the model does stall on transition it should have gained enough height from that first part of the climb to be in little danger, and with luck it won't even lose much height.

Practical trim

Of course, if we were always to be able to guarantee flying in dead calm the bunt diameter could be opened out and the VIT/AR time lengthened to produce a very impressive, long and steep climbing phase; but in a wind such a delicate trim would simply result in the conventional large loop. Remember we are trying to produce an all-weather pattern. What's more, if you convert existing models which have conventional wash-in on the inner starboard wing panel you may find that the roll it executes, particularly if you tend towards a vertical launch, is such that the model is facing downwind as it flattens out (Fig 5). Now in calm or light breeze conditions this can be very beneficial to the transition but otherwise the wind shear will exaggerate the VIT effects and flatten the model off very quickly. I learned that on the first flight of the Nationals last year when the system was still very experimental. I had set it for nine seconds! The model survived the impact with the runway (which happened a few seconds after the VIT cut in) and it actually flew off again, but it was all acutely embarrassing. Try to ensure that the AR keeps the model headed upwind and if it persists in rolling downwind then don't be afraid of shortening the VIT time to suit its preference. I often cut it down to 3-4 seconds on very windy days — even if the pattern looks a little awkward it will still be high enough to stay safe; far higher than when looping from the launch. The possibilities are endless, particularly calm-weather trim. I have found that the launch angle has a marked effect on the pattern. The less steeply the model is released the more it will tend to head up into wind, flattening and rolling left with little likelihood of rolling-off downwind

and suddenly bunting. Although this technique allows longer VIT periods it can introduce untidy transition stalls. I think the safest trim for any setting is the vertical launch, the most spectacular being the 75-80 degree launch with longer VIT timings.

It has not been found necessary to split the VIT and AR operation. Arranging them to work together is quite adequate, but to simplify timer settings two release pins on the Tomy shaft are best; one is to release the D/T line in the usual way and the other releases the VIT/AR line. They can then be adjusted independently for those

awkward-length maxes and trimming flights.

One more warning — although vertical launching is relatively simple in one plane, side-to-side alignment can sometimes be misjudged. In other words, you can easily release the model with one tip, usually the right one, lower than the other. This can exaggerate the turning tendency in high winds and that can be dangerous. However, I have found mistakes to the left of the wind less fraught; indeed, I have got away with big errors in this direction on a number of occasions.

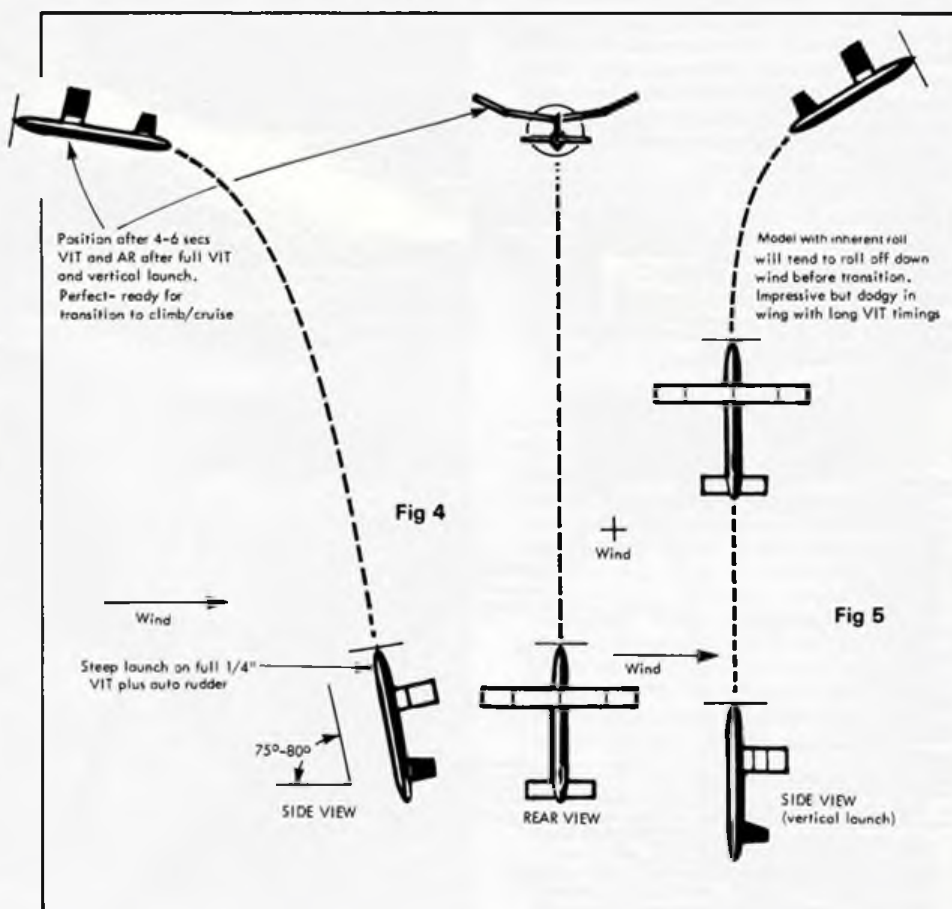
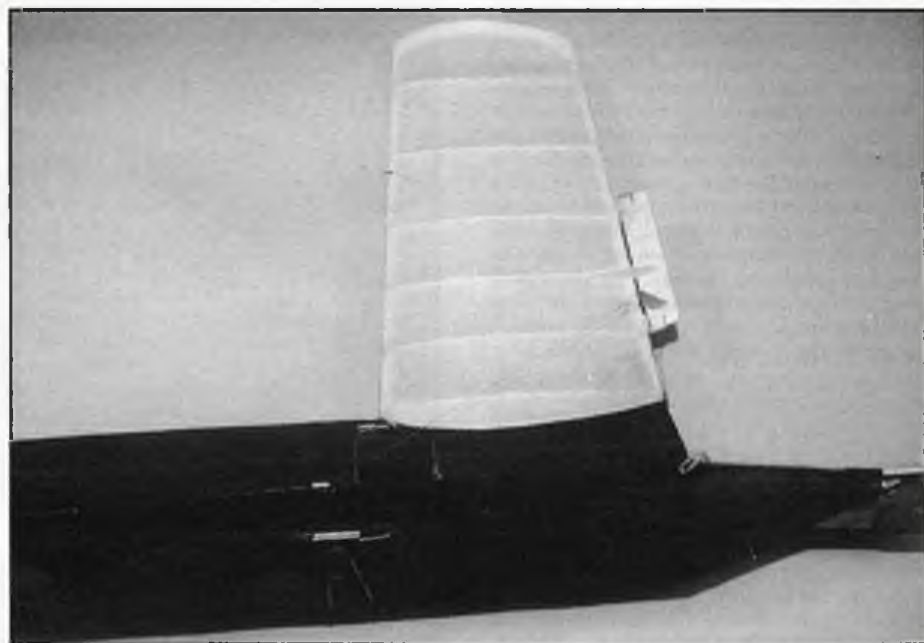


Photo at top: Side view of fuselage showing rudder line, VIT and D/T lines running through small-diameter aluminium tubes close to the rear peg. Further up the fuselage the rudder line is crimped to the VIT line so both activate together.

FLYLEAVES

This month Martin Simons reviews a volume of considerable interest to aeromodelling aerodynamicists

Aerodynamic Design of Radioguided Sailplanes, (Progetto Aerodinamico di Alianti Radioguidati)

by Dr Ferdinando Galé (obtainable directly from him at Via Marconi 10, 28042 Baveno, No. Italy, US\$48 approx).

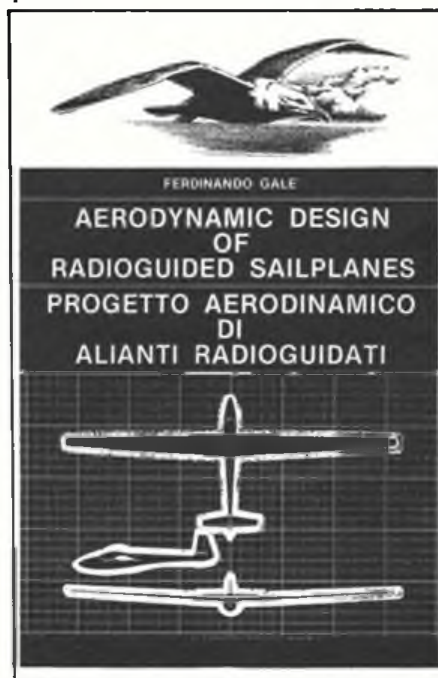
Dr Galé is well known to English-speaking model sailplane enthusiasts for his book *Alianti - Soarers* and for his editorial association with the three *Symposia Sui Veleggiatori Radio-comandati* which were published by the Aero Club Vergiate between 1978 and 1983.

This new, bilingual book is an astonishing tour de force. Dr Galé has duplicated the entire Italian text in English, which task alone must have occupied him for many hours. Fifteen chapters cover every aspect of model sailplane design and an appendix contains ordinates and other data for over 300 aerofoil sections. As well as a great many old and new favourites, many unfamiliar sections appear. A particularly useful feature is that the camber and thickness of each profile is stated clearly. For practical purposes, these two figures are by far the most important that a model flier should know about any wing section. Galé rightly points out in his text that modern 'laminar flow' wing sections are not likely to be of much value to modellers unless the wings are of a very high degree of accuracy and, maybe, not even then! As he says, wind tunnel tests so far have not in fact demonstrated any vast benefits to be gained by laminar flow wings except, perhaps, at very high speeds.

The book is intended for the non-technical reader but it is obviously designed to change that status. The enthusiast who takes the time to read it with the care and attention it deserves will, by the end, be unusually well-informed on aerodynamics. For anyone whose interest in sailplane design goes beyond the elementary 'cut and try' system, a copy of Galé will become a most useful reference.

Dr Galé's approach is to support his verbal explanations at every stage with the relevant mathematical equations. The work is also liberally illustrated with diagrams and graphs, some of them quite complex but all repaying careful study and thought. The basic formulae (about which there can be no argument) are given, together with many which derive from them and which have immediate application to sailplane design. In addition Dr Galé's fifty year experience of model flying enables him to include many useful hints and tips to amplify the scientific and mathematical material.

As if writing such a book were not enough, Dr Galé has published it himself. It is produced as inexpensively as possible, the original high quality typescript having been reduced in size photographically to avoid the high cost of letterpress printing. The numerous formulae have been written into the text by hand, thus avoiding the errors which always seem to result when printers are asked to set complex mathematical scripts such as this. With the Italian and English texts running in parallel columns, the reader soon gets used to scanning only one side of each page and although the type is small it is clear and legible for the most part.



A formidable document. Dr Galé has confirmed that the linguistic points raised by Martin Simons in our review are correct. Cross-refer for accuracy!

In a few places the layout seems to have gone slightly awry, especially in Chapter 4 on fuselages, which requires some detective work to reconstruct the page order intended by the author, and a complete paragraph on page 133 appears again on the following page. In other places, diagrams referred to in the text are hard to find and a few of them seem to be wrongly numbered or, perhaps, letters in the text are misplaced, as on page 15.

There are some small faults in translation. For instance, 'asymmetrical' is surely a better translation of 'asimmetrici' than is 'semi-symmetrical'. (Dr Galé uses the term 'biconvessi' (biconvex) where some would say 'semi-symmetrical'. Similarly, 'concave bottom' is not all the same as the intended 'concavo convex' (pages 26 & 27).

A couple of other simplifications may also be related to the language problem. Dr Galé states correctly (p33 & Figure 2.15) that wings at all angles of attack usable in flight exhibit constant pitching moment coefficients irrespective of the lift forces they generate. This seems to contradict his earlier remark (p31) that 'there is no moment if there is no lift' (he almost immediately admits 'this is not absolutely correct' but does not clarify the matter adequately.) It needs to be emphasised that a wing at zero lift will have the same moment coefficient as it does at other angles of attack. In the case of normally cambered wing profiles, this moment will tend to rotate a model in the nose down sense. The powerful nose down moment of cambered aerofoils is the fundamental cause of 'tuck under' in model sailplanes. (The cure is to increase stability by moving the centre of gravity forward and re-trimming the elevator. Dr Galé's standard stability formulae may be used to demonstrate this).

Another small fault of translation occurs in discussion of the Whitcomb winglet, where Dr Galé's English text suggests that the flow above the wing is deflected by the winglet towards the centreline of the aircraft while that below is deflected outwards. This is the wrong way round. The Italian version is correct.

The winglets work by turning the flow against the natural tendencies of the tip vortex. Similarly, although a very minor point, it is doubtful if Dr Hoerner would recognise the model tip shapes sketched by Galé on page 49. The down-turned tip is intended to restrain the wing tip vortex. Hoerner's idea, in contrast, was to let the tip curve upwards slightly to encourage the high pressure air on the lower surface to sweep outwards unrestrained; again, the reverse of Galé's explanation (see Hoerner's book *Fluid Dynamic Drag*, included in Galé's bibliography). What has yet to be demonstrated is that either makes any real difference. A true Hoerner tip, though unnamed, is shown in the upper part of Galé's Figure 8.13.

Dr Galé's discussion of sailplane performance in turning flight represents probably the first attempt that has been made to explain this to modellers in detail, and the same applies to his chapter on manoeuvrability. These chapters will prove particularly valuable to serious students of sailplane design, especially those who have a certain amount of mathematical training. Dr Galé thoughtfully includes a short chapter of revision in maths and physics, and it seems likely that many readers will need this and perhaps rather more if they are to appreciate fully the work that has gone into this book. Despite the minor criticisms mentioned, this is a most remarkable work which will probably remain unsurpassed for many years.

MS

MAGNUM FORCE

SIG's latest stunter is checked out by Phil Bolderson

JUST WHEN you thought it was safe to stop walking round in circles there in From the Handle were brief details of a new kit, and what a kit. I imagine it would strain the average brain cell quite considerably to recall the last time a control-line aerobatic model was put on the market. Blowed if I can remember when. Now SIG, American purveyor of fine kits for an awfully long time, have come up with a new design. This company has several very good aerobatic designs on the market already but the Magnum is no revamp or profile. It is a full-blown contest aircraft.

Back in 1966 I remember having cosy chats to various top stunt fliers of the day during the World Control-line Championships at RAF Swinderby.

One remark that stuck was made by Canadian Dave Kelly who remarked that in order for the model not to hunt in level flight the elevator bearing should have a small amount of 'slop' built-in. Twenty years later modellers are still doing it that way, but the best of the modern designs incorporate the method that Mike Pratt has adopted on the Magnum. The technique is simply to use an elevator section of less thickness than the maximum thickness of the tailplane which is, of course, upstream of it in the

airflow. This introduces a certain amount of aerodynamic 'dead-band' to the elevator which allows level flights, either way up, with a slightly depressed flap which is what eliminates the hunting tendency.

If I seem to have somewhat belaboured the point, it is only to illustrate that this model is real 'state of the art' stuff. Other features of the design include (i) a foam-cored, hollow-section wing; (ii) a foam-cored tail; (iii) an almost 'in-line' thrust, wing and tail set-up; (iv) a long tail moment; (v) a carbon-fibre reinforced tubular pushrod for the elevator.

Open the Box

First things first I suppose; not a lot of point even opening the box until we have got one. Fortunately buying from the USA is very easy if you own either of the two major credit cards. Ring the supplier (I rang SIG direct) in the evening, place your order and about a week later a postman will knock and demand money for duty and VAT. How much? Well the kit cost £67.11 including airmail and the Duty/VAT was an additional £15.07, making the kit £82.18 overall; not cheap but not bad either!

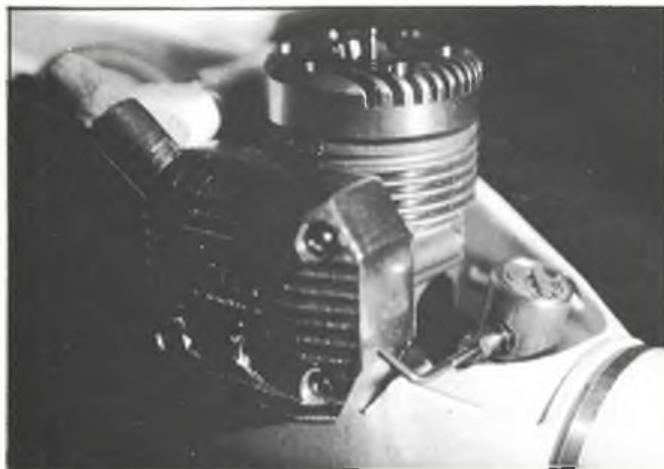
The kit arrived very well packed, and needless to say the contents of the box are excellent. It should be perfectly feasible to



build a competitive model without substituting anything, and I think that is no mean feat these days. For example, there are two blocks of balsa for wing-tips in the kit: the inboard one is meant to be hollowed to accept the adjustable lead-out guide, and the other can obviously be used to substitute for tip weight. In my kit one block weighed 70 grams and the other weighed 90; no accident, surely?

Make a Magnum

Skinning the wing is the most daunting prospect, but all I did was to follow the instruction-book sequence and a warp-free pair of wing panels resulted. The adhesive



KIT REVIEW



recommended for applying the skins is not available in the UK so I used a very thin, commercial grade Latex that Avicraft of Bromley use to skin the wings of their Panic biplane kit wings. This worked well, but I imagine thinned Copydex would also work satisfactorily.

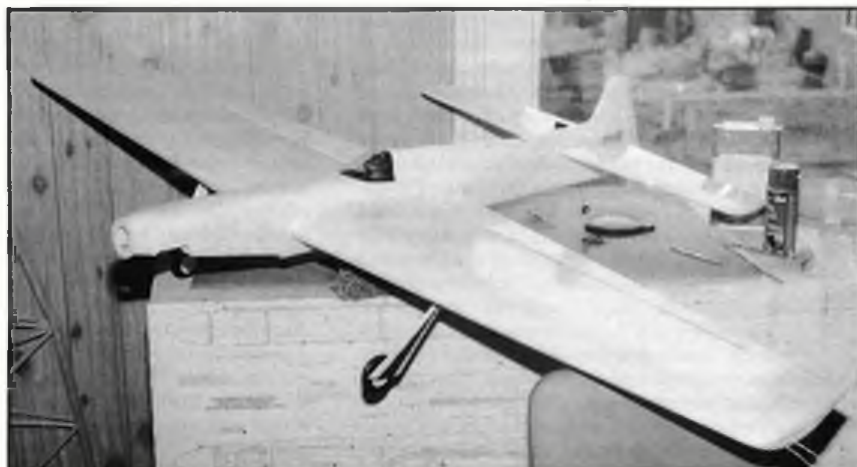
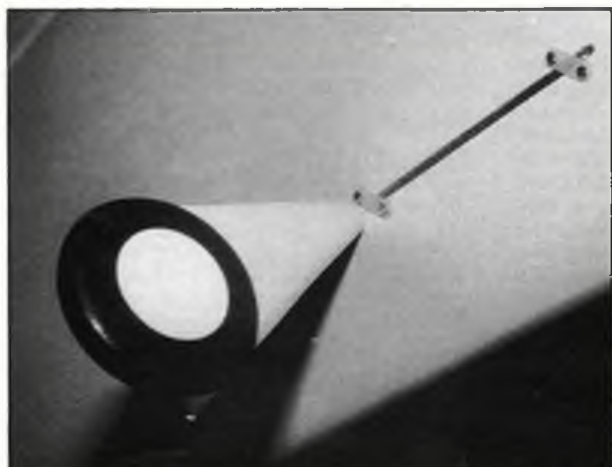
The fuselage is very easy to build because the fuselage sides have longeron, former, doubler and other structure positions printed thereon. The very high-quality printing of the plan made building the control surfaces fairly simple too. This brings me to the only quibble so far. The flaps and elevators are mainly built from strip balsa with some printed and pre-

shaped parts, and I found the strip supplied to be lacking a couple of inches, even after I had cut the pieces with practically no waste. As I say, a minor point - but very irritating if you happen not to have in stock that particular thickness of sheet...

Nevertheless, the quality of everything in the kit was little short of excellent at every stage. If I were to build another from the kit, just about the only change I would make would be to use a different bellcrank. Nylon bellcranks on .60-size models make me nervous, and I would be inclined towards a four-inch steel replacement for the 3in. nylon unit supplied. However,

The world of aerobatics! Phil displays the review Magnum in front of his full-size Pitts Special G-BSIS.

Across foot of page: Far left: An ST 60, fitted with Tatone J-Tech silencer, provides the urge. Centre left: This adjustable rudder was added after first trials. Centre right: The U/C is straightforward and robust: Right: The completed airframe awaits trim colours.





Open the box! Foam wings take up much space but there's lots more inside. Wood quality impressed our reviewer. Above: Wing tip and root of wing panels reveals hollow core. Panels have to be skinned by the builder.

were I to build a replica from that superb plan, I would also change the wing and tailplane to built-up structures, probably using the I-Beam or 'Detroit' method for the wing.

None of the above is intended to imply any criticism of the kit (which is *very* good), nor the way it builds up (which I thought both quick and relatively easy), nor indeed the way the model flies, which impressed me from the first flight on, but merely indicates that the model finished a little heavier than I would have liked; and the table of weight build-up during construction does tend to lay blame on the wing.

Carping aside, the model is strong enough for flight loads, and sufficiently robust to survive transportation to and from our flying site. The only areas of open structure are control surfaces which were covered with tissue and, after water shrinking, doped with Randolph's Butyrate Dope for no better reason than there was a gallon of it in the workshop at the time. That was a mistake. Butyrate does not know when to quit and keeps on shrinking. It eventually pulled all the nice, clean corners into rather irregular fillets. Ugly! The interior of the nose was reinforced with small slabs of glass cloth and epoxy finishing resin at the corners.

All visible woodwork, including inside the nose was doped and tissue covered. The entire airframe was painted with white Hobbypoxy except for the cockpit which was painted matt black, the canopy being installed and protected with tape while the white was sprayed on. Oh yes... second major mistake... the overspray set so quickly that the fuselage ended up

looking a little like Sandtex... drat! Ever tried to rub down an epoxy finish? Hard, isn't it?

What we now had was a very bland colour scheme which was immediately brightened up by red and blue Solarfilm on the upper leading edge. Great!

It was now December. A Carolina-Taffinder uniflow tank, bought 'over the phone' from the States, was installed together with a Super Tigre G.60 Stunt, and CB two-inch spinner. As for the prop, I cut down a 14 x 5 to 13in. diameter. Now we waited, and waited, and waited. Remember last winter and spring? Correct; you couldn't tell the difference between them. We also missed that little bit of good weather around Easter because I was otherwise engaged, so the first flight didn't happen until July 3rd.

Magnum trials!

When the great day arrived I warmed up with my SIG Banshee profile model (Fox 35 powered) but I need not have worried. First flight showed the Magnum to be very steady, but too slow (over seven seconds per lap) to be aerobatted on a combination of big, fine-pitch prop and a very rich needle setting. Ah yes... the engine; out of the box, into the 'plane, fill the tank, first flick kicks the prop off. Ahem... Refit prop, flick, result: one instant start. Very nice. Against that, I do have to report that the starting is not so good now the engine has run-in a little. Possibly the ring gap is now too large. And there's the *vibration*. This alone has me looking for a replacement powerplant. I intend to try the Rossi 40 which several people across the pond, like

ex world champ Hunt are promoting for stunt in the States, just as soon as I get a suitable venturi machined for it. Suffice it to say that after only eight flights there were stress-cracks appearing on the flap fairings. The instruction quote: 'Run in classic two/four manner... produces copious amounts of vibration,' is spot-on. It shakes out the cowl screws repeatedly, and has produced some very odd handling when the vibration loosened the adjustable lead-out - all good fun in the middle of an overhead eight...

After only ten flights the Magnum is far from fully trimmed but it is a delight to fly. Despite being almost twice the weight of a decent .35-size model it is so agile it makes even my profile 'practice model' feel unresponsive; not only that but in level flight it just sits there, stone dead. My chum John, who 'critiques' my C/L flying said he couldn't see the corrections during the inverted laps on one flight, and I always have trouble with that part of the schedule. The model flies steady.

Minor changes so far include adding a ground-adjustable rudder, which prevented the need to add balancing weight to the tail. The prop was changed to a stock 12 x 6 Powermax wood; not ideal but an improvement. The plug was changed to a Fox idle-bar; this, plus a change from Dynaglow-5 fuel to higher-nitro Dynaglow-10 causing a noticeable improvement. Tip weights have been gradually reduced. One 'extra' seems good for windy or turbulent weather (yes, the weights are included in the kit). Finally the originally seventy-foot 0.018in. Sullivan stainless steel lines were shortened to 65ft between eyelets. The model now flies at 5.2 to 5.3 seconds/lap, and will do far more than I can ask of it. Very nice indeed!

SIG Magnum: weights table

Basic wing structure:			
Inboard	6 3/4 oz	200gm	
Outboard	7 1/2 oz	215gm	
Both	14 1/2 oz	415gm	
Joined, roughed out, no tip weights	18 1/4 oz		
Inc. all tipweight	20 1/2 oz		
Tips			
Inboard	70gm bare	20gm carved with guide	
Outboard	90gm bare	40gm carved	
Engine			
ST 60 • ST Muffler	15 3/4 oz		
ST 60 • Dixon Muffler	13 3/4 oz		
ST 60 • J/Tec Muffler	14 1/4 oz		
As used, inc. mounting screws	14 1/2 oz		
Tail			
Shaped, unsanded	1 1/4 oz		
Elevators shaped, untapered	1 3/4 oz		
Flaps			
Shaped, unsanded, inboard	1/4 oz		
Outboard	1 oz		
Fuselage			
Sides, inc. doubles & stringers	2 1/4 oz		
Bare airframe:			
Fus, surfaces, cowl, wing, U/C; No engine, prop, spinner, canopy, or cockpit detail; no finish; leadouts without ends; With engine & muffler	38 1/2 oz		
Covered airframe			
Tissue covered; one coat of dope, inc. surfaces, cowl, cockpit, U/C; plus essential extras: engine, spinner, prop, tank, wheels, muffler, hinges, kitchen sink	37 1/2 oz		
	21 1/4 oz		
Complete:			
Less engine, prop, spinner, tank and plumbing	43 1/4 oz		
Ready to fly:			
• adjustable rudder and all the tip weights	62 1/4 oz	1770gm	
Aimed for flying weight	65 oz	1845gm	
	57 oz		

THE McGILlicuddy MARVEL



**A timeless tale of
Vintage derring-do by
John Ashmole:
illustrations by Terry
Rose**

THE NEARBY WOODS loomed distant through the mist and early morning rabbits ran to ground. In one corner of the field stood an indolent windsock, intently studying its toes. Rural Bedfordshire, which had once echoed to the hunting horn and yelps of hounds, and later to the rotary chug of Gnomes and Le Rhones, was slowly awakening to the new day. The gentle village of Old Holborn, oversleeping in the Sunday morning dew, was blissfully unaware that upon the neighbouring airfield which shared its name there was to be played out the climax of a tale of human endeavour and rivalry which had its origins three miles away over forty years ago.

For recently, while rummaging through the darker recesses of an old modelling cupboard rich with the dust of half a century of aeromodelling endeavour, one hamish B. McGillicuddy had unearthed a fragment of his distant past. Not a 'Eureka' — type discovery, you understand; more the type of relic that launches the finder into a reverie of musing, with a faraway look upon his time-worn features.

The loyal Drambuie, his pet seagull and as timeless as his master, fluttered sulkily into a distant corner of the workshop realising that it could now be many hours before the next sardine tin would be opened. For between the talented fingers of the little man was held the subject of his profoundest thoughts — a dusty, warped and cracked propeller blade. Just one. And

the memories came flooding back. Of a snow-flecked Scottish moorland half way to Muckle Mire, a sizeable knot of appreciate club members (and at the back a few scornful spies from the Teuckle Toorie crowd). The youthful McGillicuddy — who was yet to earn the pseudonym 'Maestro' — felt within him that strange mixture of trepidation and pride as his revolutionary design made its initial unsteady hand glides. The first slabslider with lifting section fuselage to be seen north of the border. His Auchengargle clubmates said it could not be done; the rubber tension would collapse the longerons, they said. But there it was, spindly undercarriage, single blade folder and all. And it worked. By the end of that historic afternoon the model was climbing lightly, the twisted skein of rubber shuddering in its arched belly before relaxing into a glide which, although barely adequate for competitive use, would at least ensure that the place would not be lost. 'It's a marvel!' said Snooky Munro with a shake of the head as he pointed his bicycle towards home; and thus the novel design was given its unofficial title.

Then war had intervened and the rubber that had powered the club's model planes became virtually unobtainable. Other modelling essentials had to be scrounged by devious means (such as McGillicuddy's masterly acquisition of an alluring shade of nail varnish as a substitute for dope) or were to be found by chance, such as the quantity of fine silk, courtesy of a foreign

visitor, one Herr Hess, upon which the Auchengargle lads managed to pounce to the dismay and frustration of the ladies of the town.

Leaning back in his chair, the elderly Scotsman finally laid down the decaying fragment of the past, and then, with a gleam in his eye, reached for a fresh sheet of balsa and a knife.

At Old Holborn

Now, while we have been looking back across the years, the scene at the rural airfield of Old Holborn has been transformed.

Motor cars from all quarters are even now filing into the parking area, every driver keenly anticipating the delights of the highlight of the annual calendar. An avenue of tents and stalls has sprung up from which even the most rare of ancient modelling goods can be purchased. Crowds form here and there among the trade stands — many a thinning dome bearing witness to the passage of time. There is even a Society which caters especially for these Antique Modellers: presumably a charitable organisation concerned with wheelchair access to flying fields, and so on.

In another part of the field those benighted fellows whose enduring penance it is to tie their models on strings and then wrap themselves in a raucous web of angry sound were going through their dizzy morning ritual; these lost souls

croaking at intervals the incantation, 'Mind the Lines!' as if to ward off yet further evil. What sins must they have perpetrated in earlier life?

An undistinguished seagull in faded tartan muffler flew above this introspective throng of humanity with a barely-concealed sneer of contempt for the feeble attempts of mankind to master the skies. It had been a long journey southward in the rattling little shooting brake, but the hungry bird knew that as soon as his master was settled amid the field there would be sardine sandwiches to peck at aplenty. Drambuie perched atop the little control tower and waited.

For a moment only the battered summit of the tartan top hat was visible but as he came closer (and somehow the massed crowd seemed to give way before him, such was the air of jaunty confidence exuded by the much-acclaimed Maestro) the full figure, such as it was, came into view.

With winding-hook hanging in its customary position upon his highland garb and battered model box firmly grasped under his arm, the hero made for the free flight section of the field.

The area towards which he was heading gave the appearance, from a distance, of a scattering of demented people plagued by a dense swarm of tiny flies, such as those which torment us on summer nights. Upon closer inspection, however, the dots circling and zooming above their heads became free-flying models of a bewildering variety of types.

Delightful little miniatures whose tiny engines made no sound flittered harmlessly above the crowd. A ponderous red and yellow device, powered by a snorting diesel which had its origins in a far-off Eastern country thumped into the ground. McGillicuddy the purist spied the most un-English title 'Hep Cat' emblazoned shamelessly across its wings, snorted in disgust and moved on.

Nearby a little knot of camera-bedecked greybeards surrounded that well-known aerobod Raymond Brainstorm, a specialist in weird and unusual designs. He had just finished demonstrating his latest experiment in aerodynamics, the flying washboard (no section, just invigorators) and was now preparing his VTOL Rotary Clothesline (the ultimate development: forget the wing, just fly the turbulator!).

More to the little man's taste was the occasional glimpse of an early Wakefield - beautiful streamliners or pragmatic slabsliders gently unwinding into the blue.

To his astonishment a fish-shaped object with bloated body and outstretched fins shot upward in a high-revving spira, slicing through the cruising layers of more civilised craft and even, dammit, had the temerity to enter a smooth, confident glide.

Then suddenly, as McGillicuddy's offended gaze was drawn upward by the sight of the fish, his jaw fell open and the model box all but dropped from his hand. For he had just seen, also climbing strongly through the cloud of circling models, the familiar shape of his own unique design - the aerofoil shaped fuselage was unmistakable.

He stood, rooted and aghast. Finally, when the intensity of the shock had subsided, another long-forgotten memory returned...

The VE night celebrations in the Auchengargle clubroom. The abashed members - Pieface Jamieson, Snooky Munro and the others - cowering in fear of discovery by an outraged McSwindle and the gentle townsfolk after the disastrous rocket demonstration. The taunting of an inebriated Drambuie with morsels of sardine placed upon obscure rafters to which the ludicrously uncoordinated bird was unable to fly. And the discovery, the next morning, that the club plans archive had been rifled! Nobody at the time had paid much attention to the theft; the search for hangover cures being a much more urgent occupation for addled brains.

Only now, hundreds of miles and many years away, did McGillicuddy suddenly recall that the club copy of his first masterpiece must have fallen into alien hands.

(He was, indeed, never to know the full story. How, on that eventful summer night in '45 Scrawny McSwell, a furtive youth much given to skulking in dark corners and bending valued bits of piano wire into curious shapes had planned his defection to the Teuckle Torrie crowd. How in a misguided effort to endear himself to his new clubmates he had made off with such papers as he thought, at the time, to be important. How the plan, creased, torn, patched and creased again, had changed hands in dark and obscure deals for increasingly think bundles of used oncercs. Such shady and underhand deals were these that even the most kleptomaniac of collectors did not know of the plan's existence.)

But into whose grasping hands had the treasured document finally fallen?

The showdown

McGillicuddy's jaw set firmly, the chin sharpened and a cold gleam in his eyes. No, it was not anger. Not yet. Rather it was the sense of determined pleasure which only the seasonal campaigner knows when confronted with one of the great challenges of his career. With a determined tread, oblivious of the mere pleasure-seeking fliers around him, the Maestro strode to the centre of the field.

A little way downwind the pirate model was still gliding. Still gliding? Despite its aerodynamic theory, the Marvel never had much of a glide. Strange.

And striding beneath the model, distant but unmistakable, was an all-too-familiar figure. With whitening hair, faded check jacket flapping in his wake, earth-stained plimsolls (and pausing only to sell some back numbers of *Aeromodeller* to an innocent passer-by) it could only be that inveterate aeromodelling wheeler-dealer, Sean O'Wrangle! It was he who had somehow acquired the stolen copy!

The Maestro's face set in a smile of grim determination as he hammered his winding stooge into the ground.

The scene was set then, for a showdown between two of aeromodelling's most legendary figures. Later in the day could come the mass-launch rubber contest, and personal honour was at stake. Events, however, were to take one further ironic twist. It was while retrieving his first gentle trimming flight that the little man happened to pass by the orange and black jap-covered copy of his cherished design, which lay for a moment unattended while its master was occupied in photographing an attractive young lady who just happened to be holding some model or other. Pretending only a casual interest (but in fact keen to see how a tip-up tail dethermaliser had been incorporated into the structure) the Scotsman suddenly bristled with indignation when his eye fell upon a totally unoriginal modification: a turbulator had been added! 'Why, it is a cardinal sin of the Vintage movement to do such a thing!' he uttered. Then, pulling himself up to his full diminutive height (and glancing round to see that nobody had overheard his outburst) he determined to play the part of the innocent injured and (on this occasion) to win, and to win fairly. From little misunderstandings are great antagonisms born. You see, when finally laying hands upon that much sought-after document - the first original McGillicuddy plan to be revealed to the world outside of Auchengargle - the fastidious O'Wrangle elected to employ modern technology in the form of a photocopy to make himself a set of drawings to build upon. And a crease, spanwise and a little aft of the leading edge, showed itself in the final print as a continuous line. O'Wrangle, quietly congratulating the Maestro upon his foresight took this to be a turbulator. . . and thus was the problem of the mediocre glide solved!

Now under normal circumstances the two protagonists, like any other pair of enthusiasts sharing a common interest, would have taken an opportunity to meet and discuss both the model and the acquisition of the plan. On this occasion, however, so hostile was the visage of the Scotsman (believing now that a most ungentlemanly cheat had been perpetrated) that even the forthright O'Wrangle feared to approach him.

Aeromodeller



The passage of the afternoon was a leisurely delight for the multitude of vintage and scale flyers scattered across the field. Time was of no matter — even the last two or three decades seemed never to have been.

Somehow, unspoken yet very real, a feeling, an awareness, spread amongst the people. The growing tension albeit unspoken between the two heroes had become known to all until everybody on the field, however unconcerned they may have appeared, was aware of the forthcoming climax. Without showing obvious interest all were alert to the progress of each trim flight whenever one of the curious slabiders appeared aloft, and everyone present had given his tacit support to one side or the other.

In the case of O'Wrangle the power and the steepness of the climb for which the builder is well known was clearly in evidence. The fury of the launch was awesome to behold. A bustling run-up of two or three paces leading with the left elbow as a hand restrained the propeller hub; jacket flapping open, loose change jingling, plimsoll laces threatening disaster and spectacles bouncing on the nose. A few paces of follow-through, some wheezing gasps for air, then eyes focussed aloft.

If the altitude the model reached during the first minute may have daunted other competitors, the glide that followed was a wonder. Rock steady, gently curving, barely any height was being lost. A wonder, that is, to all around — all save one.

The Maestro, working within an aura of tension and determination which had the effect of keeping the growing huddle of spectators a respectful couple of yards clear, called upon all his years of experience to find a superior trim. As he was musing over some finer points of trim the errant Hep-Cat, deadstick and off-trim, clunked into the glass nearby and Drambuie, despairing of ever receiving a proper meal with his master in this mood, flapped off to see if it had brought any tasty worms to the surface. Meanwhile the Marvel's centre of gravity was thoughtfully shifted as part of an attempt to minimise wasteful downthrust — but then the uncertain glide suffered still more. Should he try a fresh motor with an extra couple of strands as O'Wrangle had done? But, no he had always been an exponent of the long, steady power run and habits of half a century could not easily be changed. Patient, fine tuning and conservation of the best rubber was the order of the day.

Now it so happened that after one of its longer trimming flights the pirate 'Marvel' happened to alight a little more abruptly than usual in a neighbouring field. No damage resulted for its arrival had been cushioned by long grass but the propeller assembly found itself jolted forwards and hung limply out of the fuselage, retained only by the twisted mass of pre-tensioned rubber.

Awakened from its afternoon slumber, a green hairy caterpillar of quite remarkable size espied a welcome cavern of shade within easy reach which it had not noticed earlier. Being well-endowed with the spirit of inquiry and having little else to do on such a soporific afternoon, it eased itself forward through the opening of the nose former, peered for a moment into the

inviting and mysterious gloom, and ventured yet further. It slid smoothly over the dark tissue, wriggled gently over a series of spacers and finally made itself comfortable in a snug little coil which just happened to coincide with the model's point of balance. There it remained, and there for the time being it may be forgotten.

The sun sank a little lower. Many fliers had packed away their models now but

none left the field unless for a brief sortie to the beer kiosk. Time had come to wind for the mass launch finale. Amid the sound of twenty or more geared winders smoothly turning, owners pulling back against the strain of the rubber and silently keeping count, cameras were focussed and angles prepared. The scent of smouldering fuse wafted across the field, and nobody spoke. The very wind seemed tense and waiting. In the distance howling insect on lines developed chronic whooping cough and died. Then came the moment of launch.

There were other models that flew higher and better that day. There was to be a jovial prize-giving when retrieving was over. But none of this mattered to our two protagonists or indeed to the tense and appreciative knot of bystanders who had become drawn into the drama as the day progressed.

Cameras clicked as the score or so of multi-coloured craft diminished upwards into spiralling black dots. Leading them to begin with was the O'Wrangle entry with its shorter, thicker motor, but as it eased into its glide other models rose more leisurely to even higher altitudes.

Meanwhile on the ground the owners, abandoning their winding rigs, were now all setting off at the trot, hoping to be as close to their precious creations as possible when they landed. A bystander musing over the dilemma as to whether free flight is a hobby or a sport may well have surveyed the fast-disappearing enthusiasts and realised... it's pursuit.

Not that the Maestro would condescend to run, of course, for had he not securely taken to heart the wisdom of the legendary Wang Ho: '... too-rapid movement is unseemly in men of our status and learning'? He proceeded downwind at a constabulary amble.

Several hundred feet above the watching crowd and a quarter of a mile downwind exhausted strands of rubber, relieved to hear at last the knock of the propeller stops, slumped against the spacers of their respective fuselages and relaxed. The models were now all settling into their glide patterns, some changing direction as they did so. Except, that is, one



model, within whose hump-backed fuselage a curious thing was happening. For a large caterpillar of the furry green type had been startled from its slumber by the violent shuddering of a black snake-like monster above its head. Accompanied by occasional bangs and thumps the uncoiling rubber had thrashed up and down, giving off a fine spray of evil-smelling lubricant. Eyes wide with terror,

What Mancunian imprecations escaped the owner of this model as its glide, formerly so impressive, degenerated into a series of increasingly violent stalls has never been recorded. Similarly, such surprised whoops of delight (when no-one else was within earshot, of course) emitted by the elderly Scotsman as he ambled slowly downwind — for a full minute longer than his adversary — must remain unreported. There was nothing more to be said. The two rivals had not exchanged a word, not even a direct glance, throughout the whole proceedings.

Aftermath

The only living creature upon the whole of the Old Holborn airfield which truly understood the outcome of the day's events was an elderly seagull, tired, arthritic and very hungry. For Drambuie, intrigued by the incompetent glide of the pirate models, had sought out its landing place amid the long grass of a downwind field and alighted alongside to see if anything was obviously amiss.

Before the eyes of the astonished bird the furry green head of a caterpillar, looking as bemused and shocked as any caterpillar could be, appeared in the open space under the tipped-up tailplane. With a single brave leap it flopped down into the long grass and made for safety. The bird, whose stomach was by now aching with hunger, darted eagerly forward. But then Drambuie stopped and with head tilted to one side appeared to be thinking. The gull remained pensive for a moment. Finally, forcing back the instincts of a predator, the aged bird took one last peep at the rapidly disappearing morsel, spread its wings and slowly flapped away...

SCALE MATTERS

Bill Dennis looks at a miscellany of topics this month, with assistance from John Roberts

Indoor scale - what next?

In my report on the Indoor Nationals I aired some ideas on how I thought the events could be improved. These seem to have stimulated some response, albeit negative! As usual, most of the flak comes from those defending the peanut status quo - if a fraction of the energy expended on discussing this event were spent on building new models, it might be worth the verbiage! I had put forward the possibility of flying the models around pylons to add a bit of excitement and an element of chance, but this was not popular. Several people favoured the use of class divisions by type, i.e. pre-1914, 1914-18, 1919-39, 1939-45 (excluding lightplanes) and 1945 - present day. Going by the number of participants (not entry) in this year's 1987 Indoor Nationals event, this would result in totals of two, two, four, two and five models in each class respectively, but I suppose this follows the modern trend in society where everyone has to get a prize. Who gets the silver Peanut?

Nevertheless, such a system will be tried out at the November indoor meeting at Walsall, as will an experimental pylon racing class. For this, models must be Peanut-size, and represent purpose-built racing aircraft; they will be timed over two complete laps. This should be interesting; who knows, it may prove as popular as the now mandatory kit scale mass launch!

For the Rubber and CO₂/Electric classes a proposal has been put to Council to increase the maximum weight limit to 170g; this is a good move which makes feasible larger subjects; even multi-engined

choices. This limit will apply at November's meeting.

My suggestions that the number attempts be reduced and that a queueing system be reintroduced to speed things up a bit fell on stony ground, the Scale Committee feeling that this would amount to debasing the event. One letter has been received requesting less haste! I stick to my guns; the best way to debase an event is to let people treat it as an endless trimming session. If more time were given over to test flying earlier in the day, we might see better performances in the event proper which would thus become a higher concentration of effort in less time.

Windsock International

This journal has been around for nearly three years now, but I have only recently partaken of it; and since it is available by subscription only, you may have overlooked it too. It is sub-titled 'The Journal for WWI Aeroplane Enthusiasts and Modellers', and that just about sums it up. The first two issues for 1987 contain some fascinating photographs, both of well known and more obscure types. Of the former, structural shots of the Mosquito Aircraft Museum's BE2e are very interesting. This aircraft was donated by the Royal Norwegian Air Force Collection and is currently awaiting restoration. Another well-known type is the Armstrong Whitworth FK8 and this is also well covered with some excellent cockpit front-end details. At the other extremes are such rare birds as a Hannover CLV, Pfalz DXV and DFW single seaters, including the T28 Floh,

which I am still not sure is not an April Fool gag...

Because the magazine is aimed at the modeller it is particularly strong on colour details, and paint chips and Methuen references abound. In addition to the magazine itself, there are a growing number of 'specials' including Datafiles on the Sopwith Pup, Albatros DIII and DV and the Bristol F2B, and the 'Aces and Aeroplane' series on Werner Voss, Georges Guynemer and James McCudden VC. Finally there is an increasingly large range of accurate three-views of unusual types, including the Halberstadt CLIV, Anatra, AEG D1, Lohner AA and Salmson 2A2. Recommended. For details send SAE to Albatros Productions (Sales), 10 Long View, Chiltern Park Estate, Berkhamstead, Herts HP4 1BY.

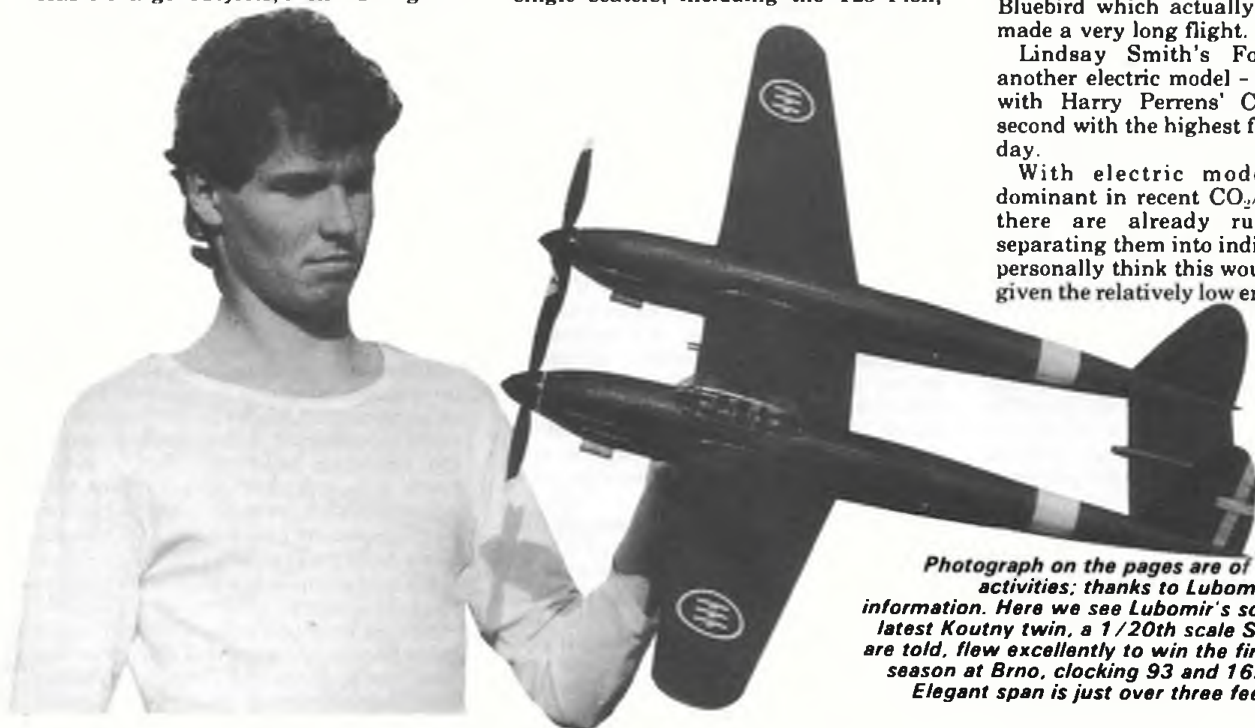
SMAE Scale Day at Abingdon: 5th July

I was unable to attend this meeting so I am grateful to Charlie Newman for these notes. Abingdon is a superb site for F/F, being large and well grassed, with plenty of concrete to try out ROG's but although R/C has always been well supported here, relatively few free-flyers have taken advantage. However, this year was different and a good number of enthusiasts turned up, enabling contests for Power and CO₂/Electric models to be held.

Winner of the Power event was Eric Coates' Austin Whippet which by all accounts flew extremely well, returning a combined score which is the highest I can recall. Conditions were very hot and thermally, and this was causing problems with gaskets blowing on CO₂ motors (are there any ideal conditions for these units?). Doug Sheppard won this class with his Mabuchi-powered Blackburn Bluebird which actually caught lift and made a very long flight.

Lindsay Smith's Fokker DVIII - another electric model - took third place with Harry Perrens' CO₂ Widgeon in second with the highest flight score of the day.

With electric models becoming dominant in recent CO₂/Electric events, there are already rumblings about separating them into individual classes. I personally think this would be a bad idea given the relatively low entries we have at



Photograph on the pages are of Czechoslovakian activities; thanks to Lubomir Koutny for the information. Here we see Lubomir's son Peter with the latest Koutny twin, a 1/20th scale SM 92 which, we are told, flew excellently to win the first contest of the season at Brno, clocking 93 and 162 (yes!) seconds. Elegant span is just over three feet; weight is 100 grams.

present. There are many subjects more suited to CO₂ than electric, and it is mostly a matter of careful trimming and preparation to make them competitive (witness the Widgeon's flight score). Where I can envisage a problem is the inevitable time when the large, well detailed electric model, such as Paul Briggs' Brandenburg or Mike Smith's Airspeed Ferry comes along and wipes out the more diminutive opposition! This would be a shame and there would then be a case for bringing in some sort of size limit. The 'biggies' could and should compete with the diesel models.

Control line scale at Abingdon: Over to John Roberts

The entry for control line was of an extremely high quality although the numbers were low. Flying got under way after the order had been determined by the classic method of pulling numbers out of the hat. The first to fly was Wal Cordwell with his new DH Dragonfly. All options worked although the model flies a little too fast for my liking. Wal was unable to improve on his first flight score because second time around one engine failed on landing and the model couldn't complete its taxi option.

Next up was Peter Stiles from Bristol whose PAW 29 diesel powered Nakajima flies very realistically. Peter completed only four flight options, not having any mechanical gadgetry fitted.

I was next with my now well-known DHC1 Chipmunk. All the options worked but I wasn't flying as I should have done. I must practice more!

The fourth lamb to the slaughter was Chris Bradford with his trusty DC3 powered by two OS35s. Chris put in a good first flight but his second was even better. In fact, when chatting to Chris after the event, he said that it was the best flight that ever from the Dak.

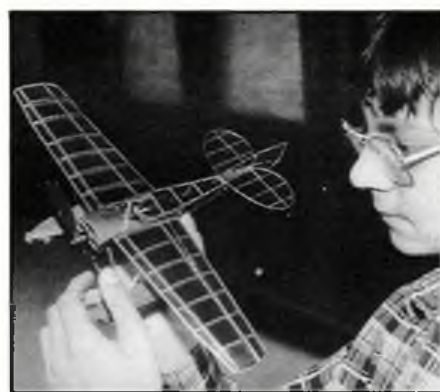
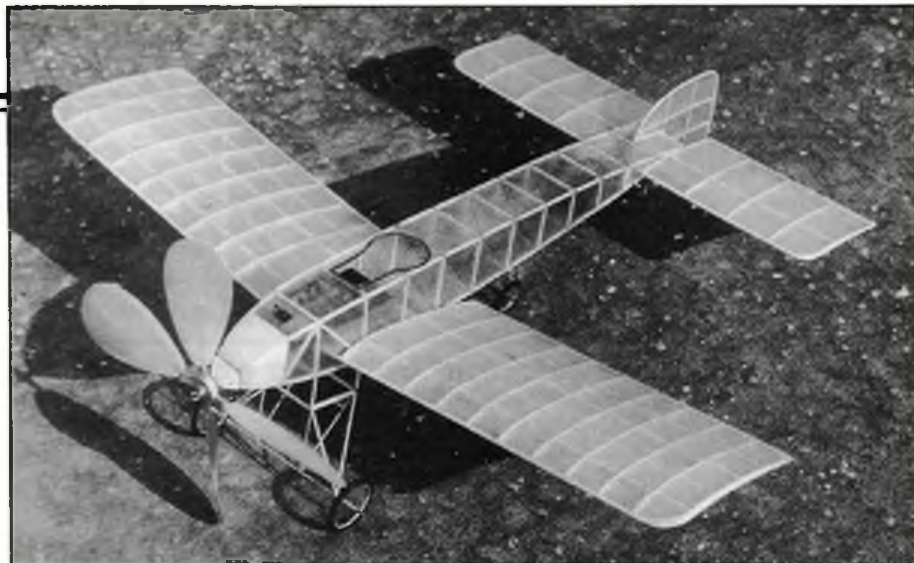
Meanwhile, Ron Truelove had been working on his mind bending He219 electronics which were playing up. The first flight came to an abrupt end when the inside undercarriage leg wouldn't lock down and a two-wheel landing was made, the underside being saved by the line guide on the wing tip.

Ron's second flight was a little better, but not up to his usual polished form because of the electrical problems. Maybe I don't understand electronics, but is this system a little too radical and complex to be 100% reliable?

A careful look at the results shows that the points were extremely close on both static and flight. last but not least, thanks must go to the judges, Derek Bird and Alan Fritz who sat out in the sweltering sun and got sunburnt just to watch modellers swinging scale toy planes around on wires!

Dreaming Spires Gala: Oxford, 26th July

In its second year now, this meeting was even more successful than the first, and



Above: Lubomir Koutny's new Bleriot, for which some flying problems are reported; model persists in a wandering figure-of-eight pattern! Left: Ivan Simonik studies his Nieuport floatplane racer. Note ballast at the float bows, which combines noseweight with a lowering of the CG (a subject about which much correspondence has recently been received!).

congratulations must go to Charlie Newman and his Oxford clubmates. The events are an interesting mix of vintage and scale, and are well run in a relaxed atmosphere. Add to this a delightful site and good weather and a perfect day's flying is assured.

There were large entries in the vintage events, particularly lightweight rubber, but numbers in scale were disappointing. There are a lot of scale modellers within an hour's drive of Oxford, but a mere handful showed up. Of all aeromodellers, the F/F scale enthusiast is perhaps the most difficult to encourage. A corollary of this is that as a whole, they are also the least adept at making their models fly well.

Short of arranging chauffeur-driven cars to deliver them to a flying meeting, it is difficult to know what can be done.

In the power event, Mike Hall's new Phönix flew absolutely beautifully, and placed second to my Hawk Moth which also performed nicely. Barry Hetherington took first in CO₂ with his Bellanca floatplane, and brother Mike won rubber with his Leopard Moth. An unusual new model was Mike Hall's rubber powered

Aichi Grace, which shows great promise. This is an ideal subject with considerable (and true) scale dihedral. Chris Strachan's beautifully built Bristol Prier also impressed. Come on you scale types - let's see more enthusiasm and support for these meetings.

A touch of vitriol

On re-reading this column, I seem to have been a little caustic here and there, so I may as well finish in the same vein! Why is it that increasing numbers of gifted scale modellers have stopped creating new models, but instead have reverted to building vintage scale? What a waste of time - most look awful and some are unrecognisable, looking if they were designed from a description given over the telephone. This is not to decry the designers, since available documentation is so much better now than it was in the 1940s. I have no doubt that if the pioneer scale modellers were active today, they would be building new, accurate models with up-to-date techniques, not rehashing the old ones. (Your views, please, *Vintage Scale enthusiasts! GC*).

F/F Scale, Abingdon: 5th July

Power (5 flew)			Static	Flight	Total
1	Eric Coates	Austin Whippet	1146	1219	2365
2	Charlie Newman	DH82	916	993	1909
3	Mike Smith	Currie Jet Wot	1135	702	1837
CO ₂ /electric (5 flew)					
1	Doug Sheppard	Blackburn Bluebird	1095	862	1957
2	Harry Perrins	Westland Widgeon	1017	909	1926
3	Lindsey Smith	Fokker DVIII	802	833	1635

C/L Scale

			Static	Flight	Total
1	C. Bradford	DC3	456.5	1110	1566.5
2	R. Truelove	Heinkel 219	532	1000	1532
3	J. Roberts	DHCL	482.5	1038	1520.5
4	W. Cordwell	DH Dragonfly	482	953	1435
5	P. Stiles	Nakajima	422	796	1218

November 1987

FREE FLIGHT SCENE

Dave Hipperson looks at an Open Rubber flyoff contender and we catch up on some enjoyable meetings



Joyce Joiner won the P-30 competition at the Morley-Finlux meeting with this Fag Ash Lil design - beating photographer John O'Donnell in the process!

Polly Stick: Terry Dobson's Open Rubber Flyoff Model

Terry came within a whisker of winning the Bottesford Open Rubber flyoff with this model earlier in the year. After outclimbing mine in the same air it very nearly outglided it too so I thought we had better take a closer look!

The rapid climb is the result of that very short, fat motor driving a comparatively small prop. You will notice that the rear motor anchorage is quite far forward with seven inches of fuselage 'going spare' behind it. Of course this is the way to go both for consistency and overall glide performance but a 5oz motor only 50in long takes some winding! The model has been designed with breezy flyoffs in mind, hence the sturdy wing, although 50 grams is hardly excessive for 360 sq inches. Tail and fin are comparatively small and very light thanks to the mylar covering. I am relieved to see someone besides myself who has trouble getting fuselage weight down. Some people quote less than half the weight of Terry's for this component. I wonder how they manage to do this and still hold it all together on launch.

Terry explains an amusing story behind the choice of name. When he and Walt

Hodkinson returned to competitive Free Flight a few years ago they discovered, as have many, that some of the hard anodised aluminium alloy tubing used for modern arrow shafts made an excellent basis for a strong and lightweight prop hub. Walt was despatched to the local archery club to obtain supplies. Someone there told him to return the following week when they might have some bits for him. Walt went back and was presented with a complete shaft minus point and fletchings. They wouldn't take any money, explaining that it was only used as a 'parrot stick'. Walt, thinking this must

be an archery term, enquired as to its meaning. 'Oh, I belt the parrot with it when it gets too noisy!' was the reply. Thus it was that Walt himself had prior claim to the name 'Parrot Stick' - Terry had to make do with 'Polly'.

RAFMAA/SMAE Meeting; Barkston Heath, 13-14th June

This two-day competition (reports Gil Hart) was notable for differing weather - Saturday was warm with sunny periods but Sunday was cold and occasionally damp. However, the wind was never too strong, nor in a direction which would require a lowering of the three-minute max.

Considering the 11.00am start - and the weather - the first Glider round provided some shocks with only eighteen maxes from the 27 flyers. The Wakefield and FAI Power rounds were as expected with only two dropped flights in Wakefield and no mistakes in FAI power. The second and third rounds sorted out Wakefield and FAI Power; at the end of Saturday's three rounds there were 14 full scores in F1A, two in F1B and three in F1C.

The weather was such that most people remained on the airfield trimming models before the Champagne Flyoffs which started at 6.10pm, the first max being set at four minutes. F1A was won by Sue Coy who chose the best air in the five minute round. F1B followed, won by Ian Kaynes with the only max of the evening, a consolation for his having to give up the Thurston Trophy last year in F1B. F1C was poorly supported but this does not detract from Pete Watson's winning flight. Having attended the Champagne presentation, most people returned to the barbeques on the campsite or to the local hostelry.

Sunday's overcast cold weather did not stop people finding lift, some of which was very strong. Some people decided to concentrate on Mini events, notably Pete Harris who won 1/2A Power with a full score. The fifth Glider round saw the end of Dick Staines' defence of the RAF Challenge Trophy for he dropped a flight, which was even more frustrating as he maxed in both the sixth and seventh rounds. Wakefield was decided in the last round when Ivan Taylor and Russell Peers dropped their last flights, Russ doing enough to win nevertheless. This left just a

RAFMAA/SMAE F/F Meeting: Barkston Heath, 13-14th June

1	P. Owens	21 00	• 4 00
2	D. Bartle	21 00	• 1:27
3	M. Woodhouse	20 53	
4	J. Cuthbert	20 42	
5	W. Colledge	20 36	

F1A Champagne Flyoff (18 flew)

1	S. Coy	3 42
---	--------	------

1/2A Power

1	P. Harris	10 00
2	L.A. Rogers	9 52
3	A. Chilton	8 50
4	J. Flynn	8 23
5	P. Gibbons	6 38

A/1

1	J. Cuthbert	10 00
2	J. Carter	9 49
3	M. Brown	8 59
4	J. O'Donnell	8 46
5	A. Crisp	8 19

HLG

1	P. Ball	7 08
2	A. Crisp	6 12

3	R. Clark	5 59
4	I. Clark	4 51
5	M. Felstead	4 16

F1B (18 entered)

1	R. Peers	20 31
2	I. Taylor	20 16
3	M. Chilton	19 52
4	G. Foster	19 47
5	T. Dilks	19 30

F1C (7 entered)

1	S. Screen	21 00 • 3 20
2	R. King	21 00 • 2 58
3	F. Chilton	20 31
4	P. Watson	20 39
5	R. Johnson	20 12

F1B Champagne Flyoff (13 flew)

1	I. Kaynes	4 00
---	-----------	------

F1C Champagne Flyoff (3 flew)

1	P. Watson	3 00
---	-----------	------

(3 flew)

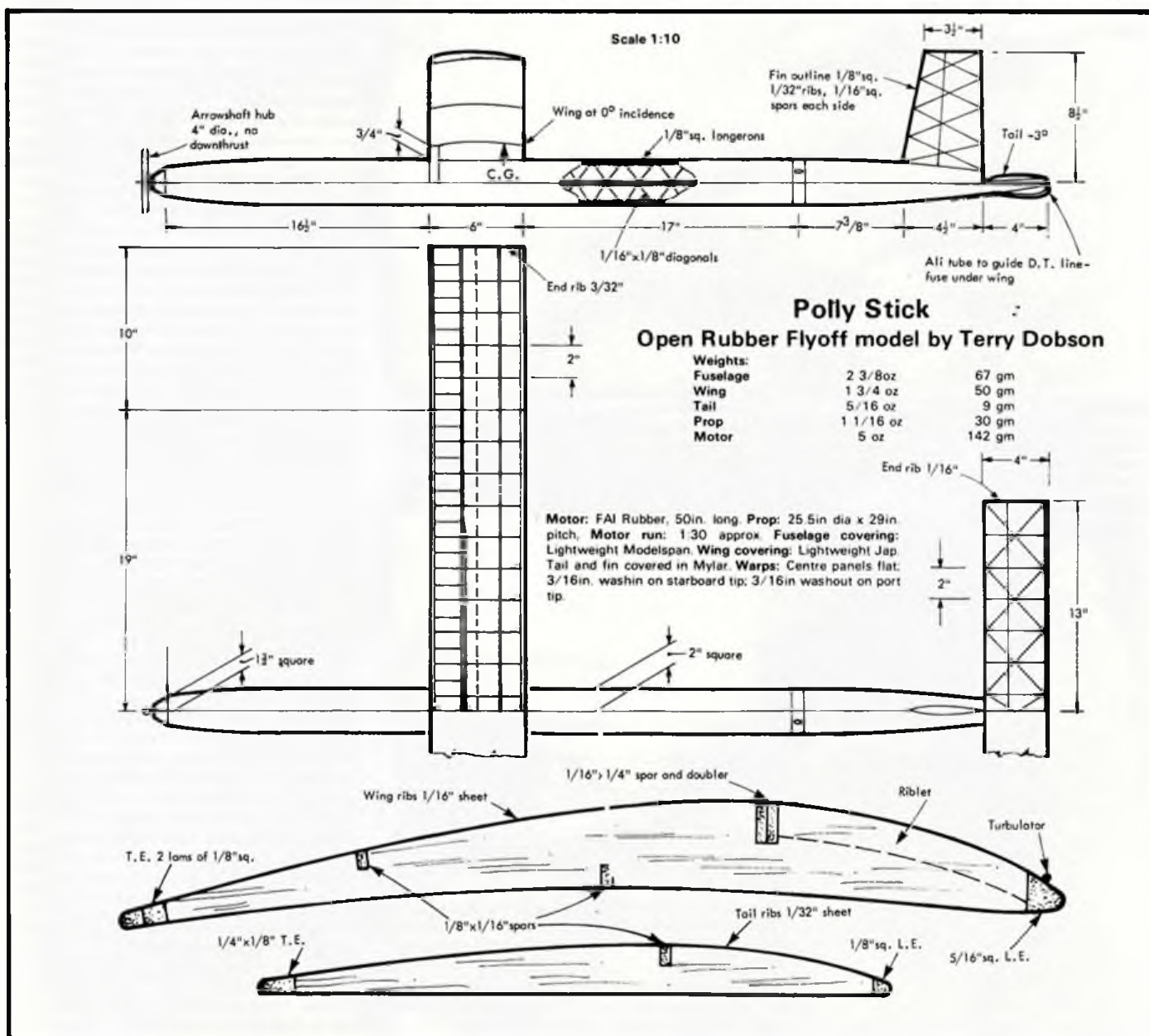
Coupe d'Hiver

1	P. Carter	9 40
2	D. Davitt	9 15
3	R. Elliott	9 07
4	I. Kaynes	8 48
5	R. Chilton	8 32

two-way flyoff in F1A and F1C. In the F1A flyoff Dougie Bartle's model mysteriously DT'd early after contacting good air leaving Phil Owens, who towed for what seemed ages before launching into good air, to win with a four-minute max. The F1C flyoff was a hectic affair. Launched simultaneously, both Ray King's and Stafford Screen's models came down for an attempt, Stafford requiring another model whilst Ray retrieved his. Having waited until late in the round the re-fly was a frantic race against time, Ray launching just before the horn sounded whilst Stafford launched during the horn for what proved to be the winning flight even though both DT'd early.

These were the last flights of the day - the Mini events having been won outright - beating the rain which started as the well-attended prizegiving began...

Right: At the RAFMAA/SMAE meeting Phil Owen won F1A with a four-minute-max flyoff. This and all other photos: John O'Donnell.





Above: Ray King was second in F1C at the RAFMAA/SMAE meet with this relatively unfashionable model, the wing of which is silk-covered. Below left: Gerry Le Vey with unintentionally 'mixed' model flown in the final round of F1A - the wings are from different models (note numbers). Panels are of unlike length - and look at the aerofoils, below right!



North Yorkshire Free-flight Group Mini Free-flight Weekend and Family Treat: July 4-5th, York Racecourse

Report by John Pool

This was a superb weekend of dawn-to-dusk sunshine. Even the wind dropped as the contest began to make two, and later three-minute flights possible across the shortest dimension of the area. An almost complete absence of wind drove control to the centre of the field to cope with draughts round the compass but the drift soon settled, helpfully, down the field.

The campsite was better than we could have imagined, being newly developed and with brand new toilets and showers.

Sadly only eighteen visiting competitors turned up and nine NYFFG members, most of whom had come to work and were not prepared to fly had to make multiple entries to achieve fifty-three entries in total. The furthest-travelled entrant was from New Zealand (via Manchester) and, most unusual, we were visited by a veteran control-line flier from Wharfedale. The most frustrating drive fell to the group from Timperley...

Our aim was to show our sport to local spectators. One of the most excited was from the Science Museum. He lives in York and flies R/C with the nearby Selby Club. He thought we had all gone the way of the Rocket. This despite his Club having received a monthly 'What's On' sheet from the Northern Area Committee which has featured our event since early in the year. There was also a young man from Texas, very interested in CO₂ and complaining of the size of his local flying field; a gang of French kids and a couple from Glasgow on the first night of a holiday in York who came back next day, when I saw someone had put a Chuck Glider in the man's hand so he could have a go! Martin Dilly suggested we ought to fly our models where people could see us. We tried.

The major events, for which sets of specially-made mugs, each with the Club's title, year and a little drawing representative of the class were awarded, took place in rounds (with one exception). Four rounds were scheduled for Saturday evening with three at 7.00am on Sunday morning. This was intended to combat the limitations of the site by using the lightest of the air, and by varying the max. Had we begun at 5.00pm Saturday the max would have been one minute. Starting at 6.00pm gave us two minutes and allowed a 3:00 4th round on Saturday night. Indeterminate drift at 7.00 am Sunday brought the max down to two minutes with two three-minute rounds at the end when the drift had made up its mind.

A/1 Glider had Gordon Beal leading by four minutes by the close on Saturday but the next three were separated by only seventeen seconds. One of these went home on Saturday evening and did not return! With the help of a final round 3:00 max Brian Nicholson nearly caught the winner who had performed solidly but not spectacularly in the final three rounds. Unlucky Gerry Le Vey had had a spectacular D/T failure flyaway in the very first round.

The fourth three-minute round in Coupe managed to put Dennis Davitt thirteen seconds in front of Gerry Ferer by Saturday night which proved unlucky for Gerry because full houses by Dennis and son Ian on Sunday morning allowed Ian to swap his third place for Gerry's second.

Hand Launch Glider fliers had to throw two flights in each one-hour round, which ran to a one-minute max. Stewart Cox was comfortably in the lead by the end of the first day with Wharfedale C/L specialist Don Howarth not so comfortably in second place. However he was back next morning to retain his second place by just

seven seconds from Nick Auckland. Our New Zealand friend maintained his form, coasting away for an even more comfortable win.

CO₂ had only two entries but the models were more dissimilar than in the other classes! Peter Gibbons had a very small model with a large plastic Peck prop turning very slowly. John Pool's model was larger with home-made wooden prop turning for about 2:00 minutes (and with less-skilful fuse cutting). The combination of the final three-minute round, a near max for John Pool and a faulty nozzle causing a bad fill meant that Peter went to bed in second-and-last-place. Some work on the nozzle gave Peter two easy maxes on Sunday but after John's final round max he could not catch up. An interesting duel this, each man helping the other to beat him.

Saturday evening concluded with a Mini-Vintage Light Ale Fly-Off in the dusk. There were five rubber models and three dramas. Len Auckland used a Wakefield motor in his Hep Cat, having left the proper motors behind. He certainly went up but the glide was overburdened. Dennis Davitt looked like topping Gordon Beal's immaculate Hep Cat flight with a Senator until a stall set in on the glide. Ian Davitt flew last - again with a Senator. Having broken a motor, he substituted an expectedly inferior FAI motor after a struggle hooking up the prop, and took first place by a mere seven seconds.

Mini-Vintage was Sunday's major event. Rubber models up to 34in. span were permitted, as were gliders up to 54in. but none of the latter appeared. Two rounds with a two-minute max were flown before lunch, after which the non-appearance of the forecast wind allowed three more flights at will in the afternoon. Of the four first-round maxers John Wingate went on to win with a full house from his Cat's Whiskers. Gordon Beal fell at the second with a motor disintegration half-way up the climb knocking out his Hep Cat. Len Auckland lost his own Hep Cat after four maxes to add to his score of 4th places. Ian Davitt missed only one max to take second place but lost his Senator; and father did likewise but dropped ten seconds for third place. Two Ajaxes disappeared (and a middle-aged Ajax fetchermite suffered from exhaustion). I rather fancy that ineffective D/T arrangements rather than lack of space were responsible for most of the losses.

Sunday's Special Event brought together four Earl Stahl Blackburn Skuas together as a warm-up for the big event at Old Warden. The Timperley models flew stably and for long durations but the other two turned much too sharply. These models created far more interest than their

size and number might have been expected to - including photo opportunities.

Best supported of Sunday's spontaneous events was Open Glider flown to three three-minute maxes before lunch. Winner Gerry Le Vey proved the site not quite long enough by landing in the trees that fringed the area.

A/1 attracted three entrants. The target was five two-minute maxes, which is

exactly what Gerald Abbott did with a modified Little Hinney. The Racecourse Grandstand unfortunately eliminated Brian Nicholson. Coupe, which also attracted three was narrowly won without dramas by the Club's local expert. A duo entered HLG but the same expert had to settle for second to Stewart Cox who was making maxes in the warmer air - some nearer double the duration - and was dependent on his D/T.

NYFFG Mini Free-flight Weekend A/1

1	G. Beal	NYFFG	12 35
2	B. Nicholson	L pool	12 11
3	G. Abbott	NYFFG	9 28
4	L. Auckland	NYFFG	7 48
5	P. Thorpe	Doncaster	5 49
6	G. Le Vey	NYFFG	2 00

H.LG

1	S. Cox	Freebird	8 11
2	D. Howarth	Wharfedale	5 55.3
3	N. Auckland	NYFFG	5 48
4	L. Auckland	NYFFG	4 28
5	R. Hoff	Vulcans	3 50
6	P. Thorpe	Doncaster	1 55
7	G. Beal	NYFFG	0 59

Coupe d' Hiver

1	D. Davitt	Leeds	16 17
2	I. Davitt	Morley	15 41
3	G. Ferer	Timperley	14 46
4	L. Auckland	NYFFG	12 31
5	N. Auckland	NYFFG	10 54
6	R. Hoff	Vulcans	10 03

CO₂

1	J. Pool	NYFFG	15 38
2	P. Gibbons	Peterborough	13 46

Blackburn Skua 50 Year Commemorative Earl Stahl Event

1	R. Brownson	Timperley	1 52
2	B. T. Faulkner	Timperley	1 06
3	P. Spence	Blackburn Aircraft	0 31
4	J. Pool	NYFFG	7 0 27

Mini-Vintage Light Ale Fly-off

1	I. Davitt	Senator	2 38
2	G. Beal	Hep Cat	2 31
3	D. Davitt	Senator	2 00
4	L. Auckland	HepCat	1 20
5	R. Hoff	Sentinel	1 12

A/T

1	G. Abbott	NYFFG	10 00
2	A. Kelly	Morley	3 32
3	B. Nicholson	L pool	2 49

Coupe d' Hiver

1	N. Auckland	NYFFG	9 44
2	G. Ferer	Timperley	9 27
3	J. Anderson	NYFFG	4 24

Open Glider

1	G. Le Vey	NYFFG	9 00
2	D. Barile	NYFFG	8 44
3	S. Cox	Freebirds	7 44
4	J. Dyer	Vulcans	7 41
5	M. Cook	NYFFG	7 40
6	R. Dyer	Vulcans	7 01

HLG

1	S. Cox	Freebirds	7 33
2	N. Auckland	NYFFG	4 55

Mini-Vintage

1	J. Wingate	Timperley	10 00	Cats Whisker
2	I. Davitt	Morley	9 57	Senator
3	D. Davitt	Leeds	9 47	Senator
4	N. Auckland	NYFFG	8 00	Hep Cat
5	J. Dyer	Vulcans	7 02	Ajax
6	R. Dyer (Jun)	Vulcans	6 50	Ajax
7	J. Joiner (Mrs)	Morley	5 54	Ajax
8	R. Hall	Morley	4 24	Ajax
9	G. Beal	NYFFG	2 00	HepCat



At the Tynemouth Rally on 31st May Harry Wilkinson persevered to win the Rubber flyoff with this reserve model on his second attempt. First-choice model crashed on launch.

Reward for the organisers came at the prize-giving when C/L flier Don Howarth made a speech about how much he had enjoyed his visit to the free-fighters. The atmosphere on Sunday was a very happy one...

Oxford MFC Dreaming Spires Gala : 26th July 1987

Report by Gerry Johnson

The meeting was well attended, with the vintage events attracting 46 entries in lightweight rubber, glider, vintage HLG, plus the rubber-powered kit comp. The CO₂ precision event was a dud, probably due to the wind.

As last year the wind was more or less westerly at about 10mph, although a bit more at times. The two-minute max was just within limits of the Meadow. Hopefully we will get a northerly wind next year. Last year, some competitors had to rush about if they entered two events because we had '4 x 2 min' max, so this year we reduced this to three two-minute flights.

Rubber lightweight

There were 26 entries in this event which was 'combined freewheel and folder'. Some flyers did lose models. The weather was a contributing factor, but most of those that got away were well up when they D/T'd. One model did over four minutes after D/T and Bill Dennis' Raff IV came down after about six minutes, but the tail did over eight! Ted Hopgood lost his Dizzie Lizzie on his third max leaving Paul McMahon to make a nominal flight. He was told 'give it a hundred turns and that would do'. He gave half turns, set no D/T and the Hepcat got away from less than a hundred feet; it was last seen disappearing over North Oxford. Vic Dubery said the all lift had gone by 3 o'clock, but he totalled 5:55 min for third place. There were only three other double maxes so a '4 x 1 + min' comp next year might not be a bad idea. Of course if we get a northerly wind 4 x 3 min maxes becomes a possibility and you can ride bare-back to retrieve; there are lots of horses on Port Meadow, but beware, some of them don't get ridden very often!

At the end of the meeting there was a Rubber Champagne fly-off. Ramon Alban was set to sort out the lightweights with his Zombie, but by then the weather had got a bit 'orrible'. They launched in a lull but Ramon's Zombie didn't fancy the rain and wing-overed after about 10 secs, whilst the other four got away. Chris Strachan was the winner.

Glider

This event never seems to attract the numbers it might, considering the number of gliders seen at events like Old Warden. We had the same entry as last year, six, of which three completed comp. flights. One must admit that a bit less of a blow might have had more soarers in the air. Peter Whitworth flying a Hyperion won with 3:57; the SATU of Geoff Smith was second with 3:51 and John Mayes up from South



Pics from the Oxford Rally (not the Dreaming Spires Gala). Top: Pete Whitworth's Hyperion A/2 is held by Anne Zimmer. Model went on to win Vintage Glider at Warwick. Above left: Mike Chilton was runner-up in Coupe; just one second short in flyoff... Above right: ... and Peter Carter was third in the same event... winner of which was Dave Greaves (right)!



Bristol was third with his Halfax Tern which achieved 1:48. Bunney Harvey's SATU had the wings fold on the tow after other Oxford Club members chivvied him into flying, but without too much damage.

Kit rubber

This event attracted ten entries, but not the juniors we had hoped. There was a bit of confusion about the rules for the event. We intended it to be for any kit rubber model currently available, not just vintage. This was not obvious to the competitors.

Ray Johnson won with a time of 4:36. Ramon Alban was second with that Senator (it must be nearly as old as mine). Third was Richard Fryer with yet another Senator. Maybe it would be a good idea to ban anyone over 40 from flying in rubber kit with a Senator to let the juniors have a chance!

Vintage Chuckie

For a comparatively new event, seven entries was quite good. The designs were mainly the larger 20in. to 24in. type, and a good average time would seem to be around 18 secs. Ted Hopgood won with a Monster, a popular model also flown by Geoff Smith and Kevin Conroy. Second was Spencer Willis, flying a Pete Bowers design. Chris Strachan was third with a Wee Floater. That sounds a bit Scots to me - it did look a bit like a seagull. The event was flown to SMAE rules with all nine flights to count. Young Luke Willis flew in this event and won a Telco motor as top junior.

The Oxford MFC looks forward to next year's event. Let's hope for the same marvellous support from the 'silent' free-fighters!

Dreaming Spires Gala, Port Meadow, 26th July

Vintage HLG (9 flights: SMAE rules)

1 Ted Hopgood	Monster	4.52
2 Spencer Willis	P. Bowers	4.19
3 Chris Strachan	Wea Floater	4.07

Kit Rubber (3 x 2 min)

1 Ray Johnson		4.36
2 Ramon Albon	Senator	3.59
3 Richard Fryer	Senator	3.50

Glider (up to A/2 3 x 2 min)

1 Peter Whitworth	Hyperion	3.57
2 Geoff Smith	SATU	3.51
3 John Mayes	Halfax Tern	1.48

Lightweight Rubber (36in. span max: 3 x 2 min)

1 Paul McMahon	Hepcat	6.00 +
		6.30 OOS
2 Ted Hopgood	Dizzie Lizzie	6.00
3 Vic Dubery	Supa Dupa	5.55



Brumfly '87

Stafford Screen reports...

Birmingham MAC ran a one-day free flight event at RAF North Luffenham on Sunday, 28th June. This event, normally held in the Autumn, had regrettably the lowest attendance yet. The weather was sunny with a light breeze in a direction that allowed for use of the field.

All events were flown from a line in five rounds. The maximum engine time for the power events was seven seconds; because maxes 2:30 for Open and 2:00 for Mini were retained all day because of the weather - and downwind crops.

A fly-off was necessary only in Open Rubber; in fact only six competitors maxed out and four of those were in that event.



Above: Ray King again, this time at the Morley meeting with his Dart Power model. Close-up shows the Tomy Toy Timer - and note that downthrust! Left: Neil Cox won the Open Rubber flyoff at Brumfly with his third model! This unprecedented decision by the CD caused a furore with John O'Donnell refusing to flyoff in the circumstances (no doubt we'll hear more about this). Below: Nigel Lee used this large swept-wing model in the same flyoff. Prop was snagged on launch - perhaps the reason for lack of climb.

Brumfly 87 Results

Open Rubber (5 flew)		CDH (6 flew)	
1 W Cox	12.30 = 4.44	1 D Davitt	10.00
2 J Carter	12.30 = 3.08	2 R Monks	8.31
3 W Lee	12.30 = 2.51	3 M Richards	7.44
4 J O'Donnell	12.30	4 M Dixon	6.51

Open Glider (15 flew)		A/1 Glider (9 flew)	
1 B Colledge	11.56	1 C Sharman	9.19
2 G LeVey	11.32	2 G Manion	9.00
3 A Gibbs	10.44	3 T Hall	8.46
4 C Sherman	10.39	4 A Crisp	8.12

Open Power (7 flew)		1/2/A Power (9 flew)	
1 P Harris	12.30	1 T Hall	9.44
2 P Watson	12.07	2 R Baggott	9.41
3 R Peers	12.03	3 A Chilton	9.32
4 T Payne	8.27	4 T Payne	7.49

**Next month - full F/F
World Championships
report. Stay tuned for
all the news from
France...**



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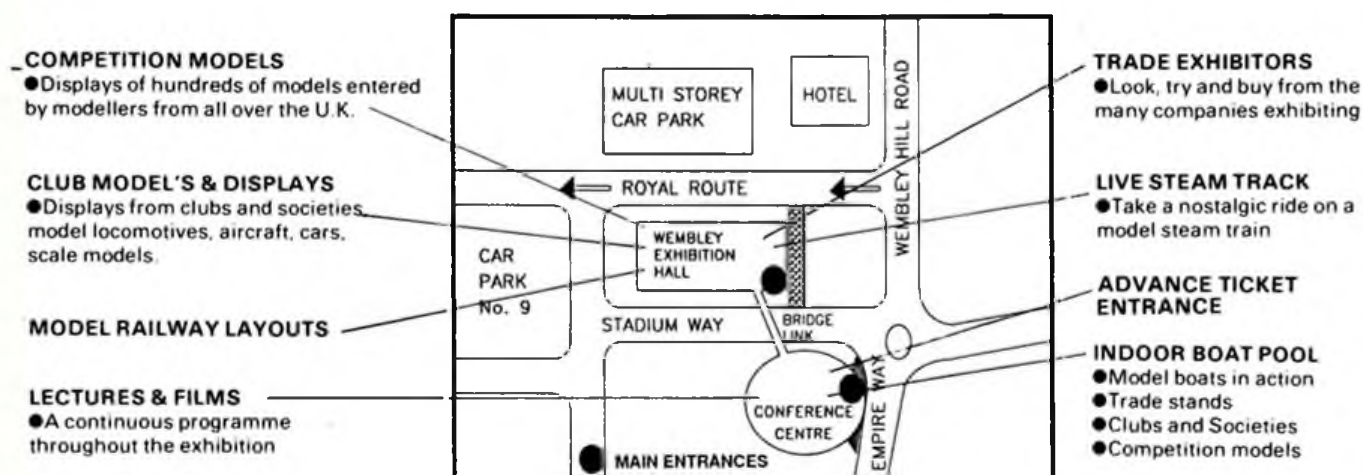
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KEIL KRAFT

**BALSA FLYING MODEL
AEROPLANE KITS
RUBBER POWERED
DURATION MODELS**

The five Keilkraft rubber powered duration models featured contain printed and die cut balsa wood panels, balsa strip, propeller, rubber motor, wire, plastic wheels, clear plastic sheet, plans, tissue and Keilkraft decal.



KK0078 ROBIN



KK0082 ACHILLES



KK0081 EAGLET



KK0083 AJAX 30" Wingspan (76cm)



**KK0081 EAGLET
24" Wingspan (61cm)**



**KK0082 ACHILLES
24" Wingspan (61cm)**

Also available in the rubber powered series:-

- KK0074 PIXIE 22½" Wingspan (57cm)
- KK0075 GYPSY 40" Wingspan (102cm)
- KK0076 SENATOR 32" Wingspan (81cm)
- KK0077 COMPETITOR 32" Wingspan (81cm)
- KK0079 ACE 30" Wingspan (76cm)
- KK0080 PLAYBOY 20" Wingspan (51cm)



**KK0078 ROBIN
23" Wingspan (58cm)**



**KK0085 GEMINI
21½" Wingspan (55cm)**

BALSA MODEL

GLIDERS

Keilkraft gliders are designed to give top flying performance and are presented in simple to build kit forms with die cut parts.



KK0001 POLARIS

KK0012 WISP



KK0005 NOMAD 20½" Wingspan (52cm)



KK0001 POLARIS 20" Wingspan (51cm)



KK0012 WISP 20" Wingspan (51cm)



KK0003 CADET 30" Wingspan (76cm)



KK0009 CONQUEST 30½" Wingspan (77cm)



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KEIL KRAFT

The issue comes with a free plan (Kwidsin) printed front/back on a pull out banner of four sheets. The banner is not included in the document.

Kwidsin by James Barry

CL Biplane Stunter

<https://outerzone.co.uk/search/results.asp?keyword ...>

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Polly Stick by Terry Dobson

Open Rubber model presented in FREE FLIGHT SCENE

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