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AUGUST 1987

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AERO MODELLER



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Cover:
Again popular as an aeromodelling subject as the de Havilland DH88 Comet. At the 1986 R/C Scale World Champs all thoughts of tricky handling were dispelled by the second-place performance of Swiss Team Member Hansruedi Zoller's fine example. As a tribute to the airborne again full-size Grosvenor House we consider other model Comets on p 434 (David Boddington photo)

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August 1987

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HANGAR DOORS

Nationals afterthoughts

It was a good F/F Nats, with — contrary to forecast — gradually improving conditions during the three-day event. Each competition was healthily supported; and if the large numbers in Sunday's fly-offs was unusual it certainly made for an exciting evening's flying. All who participated should feel rewarded by their efforts; and credit must go to organisers and helpers for a job competently done, but let's look ahead for a second...

Aeromodellers are an outward-going bunch. The very act of launching a new model something that has been individually created, symbolises this. It follows that progression is to be expected, so with this in mind, let's examine a handful of views heard over that holiday weekend — not with any criticism of the present set-up in mind, but just to consider what comes next.

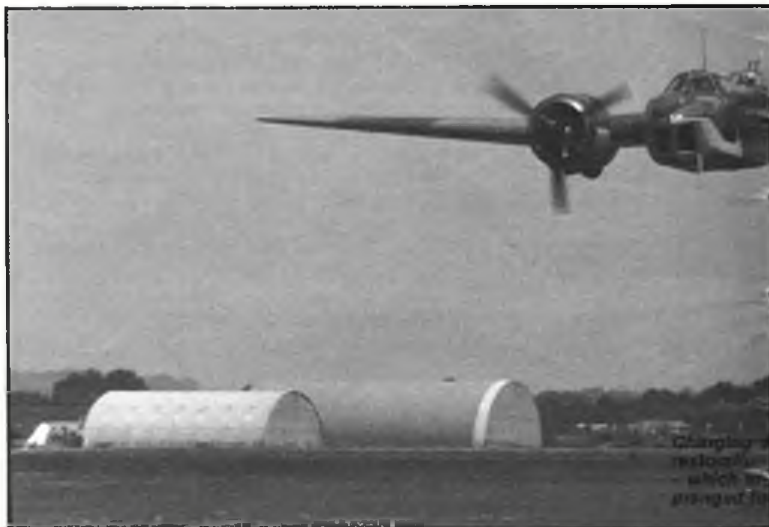
Talking to allegedly hardened free-flyers was illuminating at times because of the revelation that many would enjoy the chance to participate in other disciplines such as C/L Stunt and Flying Fifteen (the converse applies too — ask control-liners Dave Campbell and Jim Woodside, not to mention Ian

Gardner, who enjoyed himself so much that he won HLG!). Bearing this in mind, the expressed wish that the jamboree atmosphere of the old 'all-in' Nats should be retrieved does not come as a great surprise. But is this possible? How about consecutive weekends?

Would trade support increase as a result? And indeed, if there is a requirement or mood for change does the mechanism exist to implement it?

Model rules came in for scrutiny. Given the popularity of Slow Open Power, why not a class for Straight Glider; that is, with no circle-tow permitted? Worth thinking about? And as most Rubber craft (certainly Open models) will happily outfly many sites, why not cease to time the flight once the motor run ceases (a D/T could trip at this point to make it obvious)? To eliminate the glide as a criterion for model excellence might seem drastic — but would it be harmful? Then we have the notion of arbitrary rules, changed each year just for the sake of it. That is, one year everyone flies 'Open' models, devoid of any restriction; next, 600sq.in. craft, then tandem-wingers; after that — who knows...

Junior flying could bear



examination. Let's make it clear — the efforts of all involved in this activity are absolutely commendable. But at the Nats, support is predictable, if reasonable. So should mileage be given to the idea of a massive gathering at a major, public venue — say, in a London or Birmingham park — with substantial press and TV coverage to suit, just to see what happens? Or are we really faced with the truth that competition model flying is just for the mid-life adult?

Think about it — and tell us what you think.

Cash-flow problems?

Maybe you've got 'em, if you were at the F/F Nats and lost some money. We are told that 'a substantial sum' was found in the hangar bar on Saturday evening, but despite messages to this effect over the tannoy at Control, no claimant stepped forth during the weekend.

All is not lost, though. Call us at *Aeromodeller* if it's you who's missing a few bob and we'll D/T the flyaway cash.

Aren't you the lucky one?

All who attended the F/F Nationals will need no reminding of the sterling work 'on the gate' by Glenda Bracken and her merry band of helpers, which included extorting as much money as possible — er, sorry, selling the attractions of the Nats Raffle at ten pence a go. Remarkably, two prizes are still unclaimed, so is you possess either of the following lucky numbers:

12 Green, or 172 Yellow
you could be in for a nice surprise! Contact Glenda or Ian Bracken on 01-263 9849 to find out what it is! *Domestic note:* After washing, the pocket of an editorial shirt yielded some unidentifiable green scraps of

paper perhaps my chance has gone...GC)

August Nationals

Bank Holiday Weekend on 29-31st August, and it must be the Nationals! Once again it will be run at split venues, with 'silent' R/C events at RAF Cranwell, just a few miles north of the rest of the Radio, C/L and F/F Scale action at RAF Barkston Heath. As well as the usual mixture of events (Scale details appear below) there will be the ever-popular 'demonstration' flight line — operating on all three days — and, of course, the traditional evening 'fun fly' sessions; but, we hope, without the appalling weather of last year's Bank Holiday Monday! Details of the R/C events will, no doubt, appear in our sister publications; news of the C/L menu has yet to arrive; but scale details are here and ready for summary. As last year, R/C scale will consist of International and Light Scale, but a difference for '87 is that the former event will be flown on Saturday and Sunday, with Light Scale on Monday only. The Super Scale Trophy for F/F Power will be flown in rounds on Saturday and Sunday evening except in the case of the unsuitable weather, when a postponement to an early-morning next-day start will be made. Flying details for Rubber Scale and CO₂/Electric will be given at the all-in F/F briefing at mid-day on Saturday; similarly, at the C/L briefing (Sunday, 10 am) participants in the Knokke No.2 Trophy will be told what's what! Entry fees are £7.00 in R/C and £4.00 for everything else, plus a registration fee of £3.50. If you fancy a go at more than one class a combination fee of £12.00 (plus £3.50 registration) covers the lot. Last date for entries is 31st July, so contact the SMAE as soon as possible (see their



Derek Knight, his Avro 560 and Supermarine Sparrow and the two Aeroplane Monthly Trophies won after successes at the Indoor Scale Nats and the Lympne Trials. A unique achievement — or will someone else manage it next year?



advertisement in this issue for their address) and make sure you finish off that masterpiece!

What's the cost of attending? The one-word answer is 'low' but, for more details, read on...

Car plus occupants: £6.00 (mini-bus £18.00)

Individual entry: £3.00 (under-16s £1.00, under-10s free!)

Three-day pass (SMAE members only): £5.00

Camping on the airfield will cost £8.00 per person (competitors £6.00). Want to go? Again contact the SMAE — and see you there!

Plump for Plumpton

Once again, Dave Bishop of DB Sound is running the always-enjoyed Model Show at Plumpton Racecourse. What's there? Dave tells us that all types of model flying, from chuckies to jets, will be displayed — as well as a healthy mixture of boats, cars, trains and traction engines to excite the modeller. Full-size attractions include a fairground, motorbikes, helicopter rides, and a bar! Even more trade stands than usual this year, says Dave; and as ever, full camping facilities are on offer. Dates are 15-16th August. DPR Models will be running competitions for the youngsters on both days so if you fancy a fun family break call Dave on 0959 77550 for all the details (see also the advertisement in this issue).

Nats awa'...

Attention north of the Border! Ron Sabey tells us that the Scottish F/F Nationals will be held at Newbigging, near Carnwath in Central Scotland on 22-23rd August. There are camping facilities close to this site which is approximately one-and-a-half hours' drive from Carlisle. Saturday is 'FAI Day'; all

Aeromodellers honoured

The Royal Aero Club Awards evening of 21st May was the scene of a notable honour in the careers of two of the best-known names in aeromodelling, for in recognition to their services to model flying, Ron Moulton and Laurie Barr were presented with the RAeC Silver Medal and Bronze Medal respectively by HRH the Prince Andrew. Time, then, to reflect for a moment upon their achievements. Ron Moulton is probably best known for his connection with *Aeromodeller* magazine, first as assistant editor and subsequently as editor (a position held from 1959 to 1970) during which time he also authored several aeromodelling titles. Since then his responsibilities have continued to grow and he is currently ASP's Editorial Director, avidly concerned to maintain high standards of journalism, not only on behalf of aeromodelling but in the wider field of leisure activities. But Ron's skills at communications have been given wider reign, nationally and overseas, by virtue of his work as SMAE Vice-Chairman, UK CIAM delegate and CIAM Technical Secretary. His awareness that the growth of model flying demanded specialist organisational care resulted in substantial efforts to raise the status of model flying as a sport as well as a hobby: to quote from the Silver Medal Citation, 'his work on CIAM has helped to make it the vital body for the sport that it is today. For example, the model flying world championship organisers' guide, that he produced for CIAM after Britain ran the 1966 World Control-Line Championships, is still an important aid 20 years later. ... The FAI honoured his creation of the revised Sporting Code for Aeromodels with their Bronze Medal of 1972.' Ron Moulton's



interest in aviation extends way beyond aeromodelling; and his particular interest in Man Powered Flight — he was chairman of the RAeS MPA Group from 1981 to 1984 — has meant substantial publicity for this fascinating branch of flight, including much effort devoted to the formulation of rules for the Kremer MPA cross-channel prize; and enthusiasts who value the security of tethered flight will know of his work with the British Kite Fliers' Association. Ron Moulton holds the Paul Tissandier Diploma of FAI and is also a Fellow of the SMAE.

To mention Indoor Flying is to immediately think of Laurie Barr whose dynamic interest in this branch of aeromodelling has not only resulted in his participation as a UK team member in 1972, '74, '76, '78, '80 and '82 (with an individual bronze medal the result of endeavours in 1976) but his leadership of our National Team to numerous Gold, Silver and Bronze awards in the face of fierce opposition. Additionally, his organisational drive has resulted in the responsible handling of negotiations for the continued use of the airship sheds at Cardington — the world's best indoor flying site — and under

his guidance four World Championships have been held there. To those who aspire to participate, Laurie's help and encouragement has often been inspirational; and the popularity of Fly-Rod, his indoor design for the tyro, bears witness to this. It must not be forgotten that Laurie has had his share of successes in outdoor model flying too. Back in 1949 he was British National champion; he is a past winner of the Queen's Cup and has represented the UK as a member of the Wakefield Team in 1969 and 1971. Laurie is a fellow of the SMAE and is a former Chairman of the Society.

Our photograph shows Ron and Laurie, happy after the presentation which was something of a reunion for aeromodellers — apart from the honoured duo, and the presence of the Round-the-World endurance Voyager team, Dick Rutan and Jeanna Yeager, the substantial attendance from the world of aviation included many whose aeromodelling origins, if not maintained today, could still be remembered as their spring-board into industry. On a night when aeromodelling was to the forefront, we congratulate both Medal recipients.

three classes to be flown in a five-round competition starting at noon. Sunday's events, Open Rubber, Open Power, Open Glider, all-in Mini and Vintage, will take place from 10am-5pm. A special welcome awaits Juniors! Want to know more? Contact Ron on 0698 429170.

Letter from Brazil

Aeromodeller's world-wide correspondence occasionally nets a few gems; we had to share this one with you. A Brazilian organisation called 'Neptun' intend to publish a bound collection of individually-submitted aeromodelling plans and ideas with the accent on the unusual. Nothing will be refused, they say, so (and we quote): "Send your partly-baked phrases,

cartoons, general interest articles, test reports, development stories, model photos or plans, and whichever material you think is a contribution for the advancement of aeromodelling, no matter how futuristic or unusual your ideas may be. Your participation in this project is important, being you an accomplished veteran or an absolute beginner." Should you wish to contribute to Analectair, as the volume will be entitled, send those partly-baked ideas to the *Aeromodeller* office, or just call anyway, and we'll do the necessary!

Gala News!

Just in time to catch Hangar Doors are the details of the London Area F/F Gala, to be held

at Training Area 9, Salisbury Plain, on 29-31st August. The following competitions will be flown:

Saturday: Coupe d'Hiver, A/1, 1/2A, HLG
Sunday: F1A, F1B, F1C, Slow Open Power
Monday: Open Rubber, Open Glider, Open Power. Contact Glenda or Ian Bracken — yes, them again! — on 01-263 9849.

Late News!!

The 1987 Howard Boys Memorial Trophy Event will now be run from 11am August 15th at Old Warden in conjunction with Vintage Weekend. The Event is for unorthodox models, F/F, C/L or R/C in the spirit of Howard Boys' own original designs — in particular tailless types.

1987 FREE-FLIGHT NATIONALS



Report and photographs by Geoff Clarke and John and June O'Donnell

The weather forecasters were ecstatic. 'It'll be in the 80s!' they shrilled. Mind you, they were talking about Norway; if your horizons were fixed on this country the best bet (it was prophesied) would be to stay indoors. Prospects for a merry Nats did not look good - but we were lucky. After a poor start things improved to give a fine, warm and sunny Monday. And we were lucky to be there at all, given the 'Barkston' situation at the end of last year. Here we should thank all at the SMAE and RAF who helped ensure that the Nats went ahead as usual. This year proceedings were augmented by computerised processing of results. Brisk, informative updating was thus possible - a credit to all involved, particularly Doug Bartle who was at the controls most of the time - and to those contest directors who bothered to use the information over the Tannoy. Gerry Le Vey deserves particular mention in this regard. But let's concentrate on the competitions.

Mini Day, Saturday 23rd May

Overnight rain had cleared to leave it cold, grey and gusty. Two-minute maxes were not easy (for the most part). Early successes in A/1 Glider came from a jubilant Tony Cordes whose new Little Hinney MkIII - our free plan this month - had been trimmed out that very morning after completion the previous evening, and had already rattled off a string of maxes. He had to wait until late in the day before learning that John Bailey had pulled clear of the rest to join

him in the flyoff. Others had dropped flights in turbulence, or finished strongly - too late. In the flyoff John Bailey was away quickly, releasing after a sharp circle into good, bouncy air. Encouraged by a vociferous Alan Jack this flight resulted in an excellent 2:25. Tony had waited almost until the end of the period before pulling up and pinging straight into what seemed reasonable air but which was good for only just under two minutes. Nevertheless, a fine achievement with this new model.

Coupe d'Hiver was more straightforward. One by one challengers dropped away leaving Dennis Davitt's consistency victorious. On son Ian's advice he changed to his smaller model after the second flight; he was lucky to get it back after a final flight of six-and-a-half minutes. Bryan Spooner was second with a model that had remained untouched since being put in its box at the end of the last Nats!

The new requirement for all flights to count in HLG had a sobering effect on most participants. Mick Page was gloomy about his chances at first but pressed on to finish second, behind Ian Gardner who roared away to an unassailable lead. In common with many others, Ian used a Butterfly (published in last September's *Aeromodeller*) much to designer Mick Page's pleasure. Young Peter Martin - just ten years old - used all the muscle at his command to accumulate a worthy 95sec. total. More youngsters next year, perhaps?

1/2A Power attracted a fine crop of contestants (indeed, all classes were well attended, it should be said). The trio of Pete

Buskell, Alan Jack and Pete Watson assembled at flyoff time. Buskell was away smartly with his reserve, having damaged his favourite on the runway. A 'loopy' pattern kept it low at first but good air took it away for a splendid 3:02. Pete Watson's model was never to gain enough height for contention - and poor Alan Jack was right out of luck. He had borrowed some '30%' fuel after a hectic rush back but flushed out the tank with his own mix when the engine ran rough, forgetting his container was nearly empty. Only half-a-tankful was transferred and the resultant early cut only thirty-two seconds scored. Bet he doesn't do that again. . .

In CO₂ Hipperson, Philpott, Strachan and Ball were quick to show form. Strachan was unhappy with his reserve after his triple-max first choice met the ground, hard. Despite much freezer spray, starting was difficult. A late charge by John O'Donnell who had been heavily involved in A/1 resulted in a last flight being taken halfway down the runway after the model had been retrieved by Terry Dilks on bike. There was much good-natured banter at the flyoff which was contested by a surprising six fliers. Philpott arrived later than the others with his 1986 model, having lost his new one on the previous flight. Strachan's was away for a relatively short hop; Hipperson launched steeply and got away well; while Philpott went last with a 'skimmer' which gained height rapidly. Phil Ball was also in contention but Hipperson's well-known (and well-visible) model stayed in sight the longest.

A rewarding end to a well-patronised and



much-enjoyed first day. What next?

Open Day: Sunday, 25th May

At the start of proceedings it was again cold and windy, with poor weather forecast. In view of this two-and-a-half-minute max was set; what could not be foreseen was that conditions would rapidly improve after mid-morning, thus rendering the target easily attainable. Those who flew late were to profit even if it was a squeeze to fit in the flights. The results speak for themselves; 33 in the Open Rubber flyoff, 14 in Open Power, twelve in Open Glider, ten in Vintage, nine in Slow Open, four in the Frog Junior and three in the Women's Cup. But for nine seconds there would have been a triple flyoff in Tailless too! In such circumstances a blow-by-blow account is meaningless, although there was much of interest.

John Pool's square-tipped Never Forget was triumphant in Tailless. Trimmed out in 1982 it still has the same rubber! A good choice for this competition, this design has won eleven Nats in a row! Russell Peers and Ken Attiwell flew their own versions - but where were the power models?

Anthony Ball concentrated hard on the Frog Junior Trophy which he was determined to win despite being well-placed in other events. His familiar Flight Cup model thermalled for an unshakeable 6:45. An encouraging twelve Junior flew (mind you, one or two will be Seniors soon!).

It was pleasant to see more names - some unfamiliar - in the Women's cup this year. Tricia Dennis lost her first-choice model on its second flight but the heavier reserve clocked an excellent 3:00 in the flyoff to pull her well clear.

An assortment of craft flew in Vintage, many far more potently than might have been expected

in days of yore. Terry Dilks' Challenger was untouchable in the flyoff but at the time of writing it hadn't been recovered after the D/T-less 7:05. Tony Hall's San de Hogan represented Power well but out-of-wind aerobatics kept him down to fourth spot.

Slow Open Power meant a convincing win for Pete Watson who really is having a great season. Ray King showed well with an attractive OS powered triple-fin model; and as always there were the champions of the diesel, including George Fuller who had been sent a PAW.35 and thought it was a 3.5 to start with! Pete Harris had his troubles, such as over-runs despite all efforts at adjustment, and he finished unexpectedly low. A well-attended class.

Tony Cordes soon managed an Open Glider flyoff place, although a quantity of his retrieving was done on someone else's - identical - bike! John Cuthbert reported lift with a vengeance; on his first max the model didn't want to come down, finishing six miles away on a four-and-a-half-minute D/T. Mike Woodhouse's fly-off model needed two to hold it, but looked good on release; but it was Carter and Williams who fought for honours. Just four seconds separated them, with Carter's magnificent 8:46 long to remain in the memory of those who witnessed it. Particularly noteworthy was Pete Tribe's effort. Better known for his control-line activities he finished in fifth place with the invaluable help of Bob Bailey.

Flyoff times in Open Rubber were also spectacular. Bernard Aslett's lightweight 'flyoff' model - one of many brought out in the late-evening session - D/Td into trees at 8:10, doing itself not much good; and others have varying fortunes. Strachan launched late into poor air, and Hipperson suffered motor troubles and a fairly torquy climb. Closely-packed results

indicate just how close it all was!

Russell Peers chose his moment well in the Open Power flyoff. He had seen Anthony Ball's Frog Junior model go straight into lift so he followed with Woodpecker (none the worse for earlier wing repairs) the moment the hooter sounded. A wise move, for his 7:52 couldn't be caught by the raucous flurry of activity that followed as one after another contestant launched to try to miss the ever-closing-in clouds. Delay was fatal - many went OOS very early. The Smith family had been in the forefront all day but even the huge Super Nogs were swallowed by cloud. Julian Hooper - favourite for honours in the opinion of many - had a short run. If this was meant to keep the model low, the gamble didn't work.

But what a wonderful, atmospheric and plain noisy end to a great day!

Heading: The Nats is fun! Thirteen-year-old Jackie Francis about to launch in the Women's Cup flyoff in which she was to place third. Credit for this achievement should be shared with John Bailey of the Biggles Club who runs a local modelling class attended by Jackie. John had his own success; at top left he concentrates hard before winning the A/1 flyoff. Top centre: Second in A/1 - and Glider Champ - was Tony Cordes who seemed to have a bash at everything. He was eighth in Slow Open Rubber with this Cox .09 model. Top right: Yippee! Dennis Davitt is happy after his Coupe d'Hiver win. Below left: Pete Buskell holds the blis after a runaway-gouging last flight but he won the three-man flyoff with his reserve model. Below centre: It's been seen before in these pages but it did win! Dave Hipperson holds his CO₂ model which defeated strong opposition. Camera-shy Sue Hipperson in background. Above: Cheerful HLG winner Ian Gardner with not a control-liner in sight. Wonder what's in that can?



FAI Events: Monday, 25th May

FAI events at the Nationals present their own set of problems. The 'International' enthusiasts seem to expect a 'proper' contest with seven rounds and progressive flyoffs. There are obvious difficulties with trying to fit three events with this number of flights into a one-day schedule. Either the flying is rushed, or the day is not long enough! Moreover there seems to be a feeling that the events should not be thermal-riding contests.

The usual solution to all this is to start the flying very early in the morning — and this year the first round was scheduled for 5.30. This might well be practical enough for these camping on the airfield — but is not quite so convenient for those staying in hotels — or even attending for the day! Also, the fliers must find it easier to arise than the very necessary helpers and timekeepers or even the 'gentlemen of the Press'!

Nevertheless, I was there to see what happened. As it turned out the weather failed to co-operate with the still-air concept — not a great surprise to those who have tried this before! The morning was cool (some would say cold) with a definite breeze and low cloud or mist that cut visibility to perhaps 300 yards or so. Flying was not going to be any problem — but seeing the models would be another matter.

The published announcements specified half-hour rounds, but with the first power round delayed 'to avoid possible noise problems' — this would be followed by a 'breakfast break' (or retrieval time) after which another power round brought the flying back in step, allowing the normal 'glider, rubber, power' sequence to be used thereafter. Hence the rounds went F1A, B,

A, B, C and so on.

Deciding what to do in the circumstances cannot have been easy. C D Phil Ball elected to start on time, and run to schedule. Perhaps he felt obliged to do so by the numbers present, and by his promise to run all seven flights! His solution to the visibility problems was to cut the first glider round max to one-and-a-half minutes, and to permit the timekeepers to follow the models. Though practical enough in some ways it rather made a mockery of the ideas of still air or of imitating 'real' FAI contests. Ten minutes or so into the round the mist lifted perceptibly, and the low max became a formality — or at least it should have been! Some fliers insisted on circle-towing for little apparent reason (and despite the chance of line tangles and collisions). It looked much more sensible simply to straight-tow well upwind, and let the model fly back over the timers. There was certainly lift at times, with models maintaining launch height until D/T'd — so presumably there was sink as well. Whatever the reasons some 13 (how appropriate) out of 54 competitors failed to achieve the nominal max!

Wakefield (or is it F1B?) followed immediately, but with the max increased to two minutes. Many contestants were worried about climbing out-of-sight in the mist — and reduced turns and the like may have explained some rather marginal flights. There were just half-a-dozen fliers who failed to max.

Perhaps it was the high percentage of maxes that let to the next glider round having a normal three-minute max. This looked a bit high even in the improving (but still murky) conditions. Timing was going to be crucial in these circumstances — especially as there was plenty of lift (at 6.30am, remember!) for those who could find it. A couple of dozen maxed, but not all of them had done so on their first flight.

As an aside, both the fliers and their timekeepers seem even more casual about the niceties of the rules. I even saw one tardy glider flier start towing straight *after* the hooter signalling the round end! Launching within the required five metres of the launch-line is very liberally interpreted, particularly by those with experience enough to know better! The following of models by timers *can* be (and was) allowed by the C D — but how many know that this can only be 'on foot'? One timekeeper actually told me how he lost sight of the model high up in the mist, didn't stop the watch, and hence *had* to allow a retake! The mind boggles! I wonder what else goes on!

It was the second rubber round that seemed difficult for those involved. The three-minute max, in different visibility, and patchy lift all combined to reduce the number of maxes to a mere baker's dozen. Steve Marriott must have been very sick at dropping just two seconds, particularly as this kept him out of the eventual fly-off.

The first power round followed (at 7.30) in very marginal visibility. Cloud base was low enough for models to be just in (or just out of) sight at the top of the climb — and very difficult to see for some time thereafter. Chasing on foot may well have helped to keep models in sight — but hardly suits the use of binoculars! Certainly I was glad not to be timing. Nevertheless, half the entry maxed, not to mention a couple of near misses.

'Breakfast break' proved to be half-an-hour, and this was followed by the second power round. Now this was difficult, with only Screen and Watson managing the three minutes. Even so, analysis of the results reveals that all the rest were to drop another round as well! F1C may well have performance — but consistency is hardly its strong point..



The resumption of the normal A, B, C sequence for the third and subsequent rounds coincided with the decision to increase the max to 3 1/2 minutes. Presumably the idea was to hold down the numbers in the fly offs. By now visibility was not a problem; the wind was still quite light, and lift proved to be plentiful. In fact the scene was all set for a normal thermal contest. When the sun came out, conditions warmed up and the lift increased in strength. We ended up with what most would describe as a hot summer afternoon. Flights tended to be very much up or down — with few in between — so the higher max was of little significance.

There was a fair amount of discussion amongst the modellers as to what the extra thirty seconds actually accomplished. My analysis of the results showed that applications of a normal three minute max across the third, fourth and fifth rounds would have added only Messrs Edge, Greaves and Watson to the flyoffs. Whilst obviously of great importance to those concerned, it hardly amounted to a major change in the overall picture.

A detailed blow-by-blow account from this stage hardly seems appropriate. A slight change in wind direction in the fourth round caused a cloud of twenty-odd gliders to D-T simultaneously into the dreaded missile compound. The pre-arranged recovery by the RAF was straightforward, apart from a few models being damaged in the process. A move of control (and launch line) along the peritrack followed very smartly.

Some increase in wind during the early afternoon, combined with the time taken to descend on D-T through strong lift, led to some models landing two or three fields outside the drome. It all seemed a bit unnecessary — and complaints from the retrievers were appeased

when Phil Ball cut the max back to three minutes for the final two rounds.

Even though two-thirds of the flights made after breakfast were maxes, the number of perfect scores had declined as the day wore on. At the end of seven rounds there were seven flyoff qualifiers in glider, four in rubber and just one (Stafford Screen) in power. The near misses included Roger Baggott whose second place power score included two flights of 2:57. With Pete Watson at third (through a VIT adjustment screw vibrating loose) this event was the usual Birmingham monopoly. Stafford's models have been well described in this magazine of late, so I trust I can omit a rerun in this report. I also trust Alan Gibbs will forgive mention of his dropping a few seconds in the first glider round, and maxing out thereafter...

On with the fun!

A mere fifteen-minute break was allowed between the end of the final power round and the start of the flyoffs. These followed the FAI procedure of progressively increasing the max by a minute each time. The normal fifteen minute period applies throughout the flyoffs.

The first glider flyoff saw Dick Staines tow up first, closely followed by three more. They circled for varying periods, but only Cliff James (back in the hobby after a few years layoff) found real lift to manage the required four minutes. Meanwhile Steve Philpott had towed well upwind, and eventually found air that he liked. This marked the thermal for Phil Owens who was circling

Top left: This well-known and reliable Open Glider model earned John Cooper a well-deserved victory. Top centre: 'Mr Tailless' himself, John Pool, with that oh-so-successful Never Forget took the Lady Shelley Trophy again this year, beating 1986 winner Russell Peers by just seven seconds. Top right: Terry Dilks piles on the flyoff turns as Russell Peers and Nigel Dilks lend a hand or two. Terry's Challenger flew beautifully to record the winning flight in Vintage. Bottom, far left: A rueful Bernard Aslett brandishes all that remains of his Open Rubber Winner after trees claimed it. Left of centre: Russell Peers' faithful Woodpecker won again in Open Power after a Wagnerian late-evening flyoff. Right of centre: Perseverance paid off for Tricia Dennis in the Women's Cup; she was nearly a minute ahead of her nearest rival in the flyoff after judging the air well. Above left: Anthony Ball enjoyed himself, winning the Fog Junior Trophy and National Junior Championship. Here he launches his fourth-place Coupe. Below left: First in Slow Open Power was Pete Watson — we didn't manage to capture him in that event but here he displays the Rossi .15 in his third-place F1C. Above: F1A winner Steve Philpott with his model — and Trevor Payne, who helped with flyoff recovery.



downwind so he maxed as well. This gave three qualifiers for the next stage, those eliminated being (in order) Mike Cook, Dick Staines, Pete Stewart and Gerry Le Vey.

Wakefield followed immediately. Ivan Taylor was down to his third model, having lost one as a D/T failure and having his second 'in transit' from somewhere downwind. Nevertheless he was the first to launch. His reading of the thermistor was right, and his model got high on climb. The right/left turns took it out of the lift, but then back in again. George Sharp and Ron Pollard had followed smartly enough and all three maxed. Derek Neil was not as quick, and missed the real lift to record a little under three minutes.

A quarter-hour break was allowed between each pair of flyoffs, giving effectively half-an-hour retrieval and preparation for the next flight. When the second glider flyoff started, Philpott was soon away and towed upwind and then crosswind as well. Meanwhile James had towed, circled, and released into mediocre air that improved too late. He managed a little over three minutes for third place. Phil Owens remained 'on the ground' and only towed up as Steve zoom-launched into good lift. The breeze proved to have changed directions as Steve's model drifted towards Phil, instead of away to one side. Though well placed for tactical launch, Phil appeared to wait too long before releasing. Nevertheless, a good zoom put him into the lift — and hence into the next flyoff round as well.

The second rubber flyoff again saw Ivan Taylor launch first, but this time he found very indifferent air for a disappointing two-and-a-bit-minute flight. George Sharp was next to go, and

found sufficient lift to scrape the five minute max. Ron Pollard was last away in air that looked decidedly marginal — until the model started to stall, damped out, then 'went away' in lift. A downwind witness said that Ron's model had suffered propeller mis-fold over the wing. This caused stalls, which in turn shook the prop loose, let it fold properly, and returned the model to normal trim. This interesting trick was apparently performed twice.

The fifteen minutes before the third round of flyoffs (to a six-minute max) was enlivened by the suggestion that the time slot be reduced to only five minutes. Although favoured by Phil Ball and some participants, this notion was dropped following the intervention of Dave Hipperson and subsequent perusal of the rulebook. As the flyoffs are the most important part of the contest, deciding the actual winners, I fail to see the need for unseemly haste. Surely, people can't be *that* keen to go home! After all, it was now only a little over twelve hours since the contest began.

That there should be this wish to 'get it over' is illustrative of feelings at the end of the Nationals. Even with adherence to the timetable, and a very tight flyoff schedule, it was a long day for all involved. Most had had three days on the airfield, and I think it showed on both fliers and on the organisation. Ten flights is a lot for anyone to contemplate. Remember the 'proper' FAI contests never try to fly all three categories in one day!

Fortunately the six-minute fly offs were to prove decisive in both events. Phil Owens was amenable enough to let Steve tow up first, but was obviously unprepared for his prompt circle downwind. The boot was now on the other foot with Steve the one able to fly tactically. Surprisingly, when Phil did tow up he made no

attempt to move elsewhere, apparently preferring to circle over the concrete patch where he started. Steve waited downwind until less than a couple of minutes remained, then launched into very ordinary air. His model was a bit tight off the zoom, but recovered quickly enough for a 2:24 score. This left Phil with little time to find anything better, and he eventually had to launch with only seconds to go. His flight of only 1:45 showed that Steve had 'played it right' and out-manoeuvred him.

Although Steve has several A/2s he did in fact fly one model throughout the whole contest — and for that matter throughout Sunday's Open event as well. This model has the usual D-box inner panels and open framework tapered tips. The L.E. is straight, contrary to current fashion, and the tips are partly covered in Melinex/Mayfair plastic film. The circle hook is a much-modified version of that produced in small numbers by Tom Richards.

Perhaps the lack of apparent lift caused the Wakefield fliers to play it differently! George Sharp had wound before walking out to the launch line, added a few 'finger turns', and launched without further ado! This gave an ordinary up-and-down flight of 2:41. Again he used one model throughout, this being far from new and dating back to 1980.

Ron was still winding when George flew. Ignoring any attempt at thermal detection, Ron simply plugged on the wings, and launched. The pattern was far from perfect, looking 'loopy' at first, and then power stalling. A quick recovery indicated good air, and this was confirmed by the height attained and a good glide thereafter. Even though trying to stall, it still cleared five minutes. Ron's models are well known to Wakefield enthusiasts, and have been well described in print. His very latest version was



not used at the Nationals because it had disappeared, believed stolen, from outside Ouston just a fortnight earlier. The contests were followed by a prizegiving, with Phil Ball doing the honours from the rear of the Control Van. Certainly the winners earned their prizes. Despite the somewhat pantomime aspects of the early rounds, the contests did develop into hard fought and demanding competitions. Perhaps, on balance, FAI was lucky. It certainly enjoyed the best weather of the weekend.

SAM 35 Wakefield Competition

This event, run by Chris Hawke consisted of two separate categories, one for 4oz-rule and another for 8oz. Whilst the lighter class was open only to published designs, the heavier specifically allowed and even encouraged own designs to the 1950 rules. This idea has caused some controversy amongst SAM35 members, but Chris is still keen to promote this aspect of 'Vintage'. No doubt this latest contest will cause more discussion.

There were ten or a dozen entries in 'eight-ounce'. The weather permitted three rounds to a three-minute max, with ROG mandatory. Trebles came from William Beales, Peter Michel and myself, flying a nice assortment of models. These were a Korda Slabsider, Copland Streamliner, and an own-design diamond respectively. The flyoff was considerably timed to suit my reporting of the FAI flyoffs. The others wound and launched almost simultaneously into the same unhelpful air. I flew just that little bit later, and managed an easy four-minute-plus flight despite a stalling glide — inelegant but enough.

The 'four-ounce' class went to Bob Wells with Ray Alban runner-up from a rather small entry, with respectable rather than impressive scores.

All in all, this provided a very pleasant warm-up for SAM 35's next venture — the Wakefield anniversary contest at Warwick. Need we add this will be limited to 'proper' vintage designs?!!

Chris Hawke Vintage Wakefield Events Pre-'37 : 4oz Class

1	R. Wells	36	Copland	7.49
2	R. Alban	46	Northern Arrow	5.31
3	D. Beales		Judge	5.21

Ralph Bullock Trophy : 8oz Class

1	J O'Donnell	O/D	9.00 - 4.04
2	P. Michel	46 Copland	9.00 - 2.47
3	W. Beales	Korda	9.00 - 1.27
4	R. Wells	Gutteridge	8.37
5	S. Fairless	Boyle	7.59
6	R. Alban	Zombie	7.45
7	D. Tennant	Hereward/Boyle	6.45
8	D. Beales	Simon	5.34
9	R. Brownson	Korda	5.33
10	J. Wingate	Itzme	3.00

Junior Kit Contests

Contests for Rubber and Glider were held on 'FAI Day'; warm with a slight breeze throughout, it was ideal for these small models — towing was a relatively easy task for the glider flyers but there was not enough wind to make life difficult for the rubber models. The max was set at 1:30 throughout, which proved to be about right, and as there were intermittent patches of lift throughout the day those competitors with marginal models could exercise some skills in picking their launch time carefully.

Top left: F1B winner Ron Pollard and his wife Joyce had two smart red-and-black Wakefields at the flight line just in case. Top centre: Nats Rubber Champion Mike Howick waits with ready-wound Wake for the lift to arrive. Top, right of centre: Winner of the Junior Kit (Glider) Competition run by Jeff Anderson was — once again — GINETTE MOORE with a new Caprice. Below, far left: Power Champion Stafford Screen won F1C without a flyoff — unusual at this Nats! Below left: A pensive Mike Dixon waits with his Performer — he needn't have worried, for he won the Junior Kit (Rubber) flyoff. Below centre: Chris Hawke's Vintage comp brought together William Beales, Peter Michel and John O'Donnell in the 'Pre-51' flyoff. The chap at the right won with his own-design model — an O'D O'D? Above: Julian McCormick, RAF liaison officer at Barkston (thanks, Julian) discusses A/2 matter with Martyn Gregorie.

In glider the maximum permitted wing span of 60in. allows all the A/1 kits: the Caprice seems to be the favourite and GINETTE MOORE, last year's winner flew such a model. With her confidence boosted by some good flights in the Women's Cup the previous day, she reeled off three consecutive maxes to leave the rest of the field with it all to do. Paul and Keith Chamberlain maxed on their first and third flights but both dropped time in between, while Anthony Ball lost his model in a huge thermal on his first flight. Dominic White's Dragonfly flew well at various times throughout the day (this model is best 'as built', not at A-1 weight) but he could not put together good times in the competition. Thus GINETTE was the winner again. Although the Caprice is the most successful aircraft in this class the other models used are all potential winners. Don't forget — glider flying needs practice!



Mike and Tom Hargreaves had their own private comp in Open Power. Tom (at left) finished 13th - still in the flyoff thought! - with Mike two places below him. Top right: Matthew Chapman gets away well in the Frog Junior; he ended in second spot. Above left: Jonathan Walker was leading HLG at one point but had to settle for fourth. Above centre: Twelve-year-old Allison Gibbons acquitted herself well in CO₂ with this robust - if smallish - craft. Above right: A coy-looking John O'Donnell who tried hard in A/1 but a dropped fourth flight put him out of contention. Right: It was very much a Nats for binoculars at times. Roger Baggott and - we think - Pete Harris keep on trackin'... See you all next year!

Seven competitors returned scores in rubber, in which class the wingspan restriction is 40in.

Dixon, Ball and Sabey were soon engaged in a tight contest, returning maxes throughout the middle part of the day and all ending with a full house. Angus White had two near maxes with his Up-Shot which was not at its best after repairs. This design climbs really well and has good potential. Gideon York performed well with the One-Nite-Special, quite a small, simple aeroplane with a Peck 9.1/2in. prop and therefore ideal as a first contest machine. Peter Martin and Richer Dyer worked really hard to produce creditable results.

At the fly-off time, the trio of Ball, Dixon and Sabey, all equipped with Performers, assembled on the flight line. Sabey flew first closely followed by Ball, with the latter clearly making best height. Dixon waited to launch into the best air of all to win by six seconds with a time of 3:47 - a remarkable performance produced under considerable pressure because of the presence of so many spectators.

Conclusions

This was an enjoyable Nationals, helped by unexpectedly rapidly-improving conditions, in which the constraints of individual competitions had given a better-than-average chance of catching the superstars. Do massive flyoffs devalue an event - or encourage the others to try harder next time? Whatever the case, we say well done to all at Barkston, particularly those who took part so enthusiastically on Mini-Day in the worst of the weather. think about your Nats - and add to our afterthoughts in Hangar Doors, if you care to...



Junior Kit: Rubber

1	M. Dixon	(12)	Birmingham	Performer	1:30	1:30	1:30	Total
2	A. Ball	(15)	Grantham	Performer	1:30	1:30	1:30	4:30 - 3:47
3	C. Sabey	(11)	Hamilton	Performer	1:30	1:30	1:30	4:30 - 3:41
4	A. White	(15)	Croydon	Up-Shot	0:57	1:25	1:23	4:30 - 1:57
5	G. York	(14)	Cranwell	One-Nite-Special	1:05	0:53	1:00	2:58
6	P. Martin	(10)	Tynemouth	Senator	0:22	0:40	0:30	1:32
7	R. Dyer	(11)	Vulcans	Ajax	0:25	0:21	0:28	1:14

Junior Kit: Glider

1	G. Moore (Miss)	(14)	Biggles	Caprice	1:30	1:30	1:30	Total
2	P. Chamberlain	(15)	Grantham	Caprice	1:30	1:05	1:30	4:30
3	K. Chamberlain	(12)	Grantham	Domino	1:30	0:29	1:30	4:05
4	A. Ball	(15)	Grantham	Caprice	1:30	0:00	0:00	3:29
5	F. Burke	(11)	Falcons	Dominette	0:32	0:25	0:25	1:30
6	D. White	(14)	Croydon	Dragonfly	0:09	0:20	0:41	1:22

1987 SMAE Free Flight Nationals

THE
FREE FLIGHT
NATIONALS

A/1: British Airways Trophy (48 entered)

1	J. Bailey	120	120	120	120	120+145	Total
2	A. Cordes	120	120	120	120	120+118	745
3	J. Cooper	108	120	120	120	118	718
4	G. Beal	120	120	120	120	100	586
5	J. Baguley	111	107	120	120	120	578
6	B. Lewis	120	120	80	120	120	560
7	R. Staines	113	120	96	108	120	557
8	T. F. Knight	120	120	50	120	120	530
9	J. Cuthbert	120	46	120	120	120	526
10	G. C. Hart	120	97	85	120	94	516

Coupe d'Hiver: HJN Trophy (67 entered)

1	D. Davitt	110	120	120	120	120	Total
2	J. B. Spooner	91	120	120	120	109	590
3	M. Howick	93	120	84	120	120	560
4	A. D. Ball	120	110	82	120	104	537
5	F. Sharp	82	120	120	120	89	536
6	M. G. Richardson	120	120	75	113	97	531
7	D. Neil	120	67	120	120	94	525
8	M. Dixon	120	91	66	120	120	521
9	N. Auckland	120	86	59	120	120	517
10	M. Chilton	120	62	120	120	82	505

CO2: Sparklets Trophy (17 entered)

1	D. Hipperson	120	120	120	120	120+382	Total
2	S. R. Philpott	120	120	120	120	120+356	982
3	P. A. Ball	120	120	120	120	120+353	956
4	J. Pool	120	120	120	120	120+190	953
5	J. O'Donnell	120	120	120	120	120+160	790
6	C. D. J. Strachan	120	120	120	120	120+68	760
7	P. Gibbons	67	47	105	120	120+	668
8	A. Gibbons	66	76	77	51	96	459

1/2 A Power: Hales Trophy (38 entered)

1	P. Buskell	120	120	120	120	120+182	Total
2	P. Watson	120	120	120	120	120+135	782
3	A. G. Jack	120	120	120	120	120+32	735
4	B. R. Peers	120	119	120	120	120	632
5	P. Harris	111	120	120	120	120	599
6	S. Screen	120	88	120	120	120	591
7	R. Baggot	120	60	120	120	120	569
8	E. Redfern	80	120	120	99	120	540
9	T. F. Payne	120	120	120	110	66	539
10	A. Wells	88	85	120	120	120	536

HLG for HLG Trophy (22 entered)

1	I. Gardner	60	52	36	60	53	60	60	Total
2	M. Page	60	60	30	37	37	60	60	501
3	J. K. Tipper	36	51	35	58	39	60	60	464
4	J. P. Walker	60	51	44	35	60	60	27	459
5	I. Clark	35	60	60	5	15	60	48	428
6	M. Benns	51	60	60	60	34	20	60	372
7	J. Tipler	37	41	25	50	42	50	31	345
8	P. A. Ball	24	44	28	38	18	25	54	337
9	P. V. Thorp	60	23	12	0	42	19	16	316
10	R. Clark	15	60	45	58	16	13	7	252

Women's Cup: Women's Cup (7 entered)

1	P. A. Dennis	150	150	150+180	Total
2	W. Dixon	150	150	150+124	630
3	Miss J. A. Francis	150	150	150+101	574
4	G. S. Moore	150	127	150	561
5	J. Nash	105	150	150	427
6	Mrs. F. Flynn	150	100	87	405

Vintage: Jubilee Trophy (51 entered)

1	D. Dilks	150	150	150+425	Total
2	P. H. Gaunt	150	150	150+403	875
3	S. C. Fairless	150	150	150+253	853
4	A. Hall	150	150	150+249	703
5	D. Hipperson	150	150	150+217	699
6	P. Michel	150	150	150+158	667
7	C. D. J. Strachan	150	150	150+158	608
8	G. E. Stephenson	150	150	150+134	608
9	P. A. Ball	150	150	150+125	584
10	D. Brawn	150	150	150+99	575

Frog Junior: Frog Junior Trophy (16 entered)

1	A. D. Ball	150	150	150+405	Total
2	M. J. Chapman	150	150	150+186	855
3	N. Auckland	150	150	150+144	636
4	A. Cliff	150	150	150+117	594
5	M. Francis	150	117	150	567
6	C. Montgomery	150	114	150	417
7	G. S. Moore	150	49	150	414
8	P. Chamberlain	97	59	150	349
9	A. White	60	68	150	306
10	K. Chamberlain	59	48	150	278

Tailless: Lady Shelley Trophy

1	J. Pool	150	150	150	Total
2	B. R. Peers	150	150	143	450
3	K. Atiwell	150	150	141	443
4	I. W. Kaynes	150	88	150	441
5	R. Staines	45	64	23	388
6	J. White	5	6	13	132

Slow Open Power: Falcons Trophy (55 entered)

1	P. Watson	150	150	150+309	Total
2	C. Hickmott	150	150	150+266	759
3	R. King	150	150	150+211	716
4	A. J. Moorhouse	150	150	150+184	661
5	G. Fuller	150	150	150+169	634
6	A. Hall	150	150	150+146	619
7	J. D. Binnington	150	150	150+104	596
8	A. Cordes	150	150	150+61	554
9	P. A. Ball	150	150	150	511
10	F. G. Chilton	142	150	150	450

Open Power: Sir John Shelley Trophy (30 entered)

1	B. R. Peers	150	150	150+472	Total
2	P. Harris	150	150	150+430	922
3	S. Screen	150	150	150+404	880
4	J. Smith	150	150	150+396	854
5	P. Watson	150	150	150+382	856
6	T. W. Smith	150	150	150+340	832
7	C. Hickmott	150	150	150+301	790
8	J. J. Hopper	150	150	150+270	751
9	R. Baggot	150	150	150+243	720
10	J. B. Spooner	150	150	150+235	693
11	A. G. Jack	150	150	150+228	685
12	T. F. Payne	150	150	150+204	678
13	T. Hargreaves	150	150	150+191	654
14	A. T. Smith	150	150	150+102	641
15	M. Hargreaves	150	150	128	552
16	G. Blair	96	150	150	428
17	P. Gibbons	150	121	118	396
18	R. Chapman	150	150	0	389
19	G. Fuller	150	140	0	300
20	F. Baxter-Jones	145	0	0	290

Open Rubber: Model Aircraft Trophy (79 entered)

1	B. W. C. Aslett	150	150	150+490	Total
2	M. J. Croome	150	150	150+444	940
3	D. Wain	150	150	150+393	894
4	P. A. Ball	150	150	150+386	843
5	M. Howick	150	150	150+369	836
6	S. C. Fairless	150	150	150+347	819
7	I. Davitt	150	150	150+334	797
8	A. D. Ball	150	150	150+322	784
9	N. Cliff	150	150	150+313	772
10	J. O'Donnell	150	150	150+308	763
11	N. Lee	150	150	150+307	758
12	N. S. C. Cox	150	150	150+279	757
13	C. D. J. Strachan	150	150	150+278	729
14	L. Auckland	150	150	150+275	728
15	T. Gray	150	150	150+254	725
16	A. J. Moorhouse	150	150	150+251	704
17	J. Anderson	150	150	150+246	701
18	I. R. McDonald	150	150	150+238	696
19	D. Hipperson	150	150	150+237	688
20	A. A. Parker	150	150	150+228	687
21	C. J. Chapman	150	150	150+215	678
22	D. Davitt	150	150	150+205	665
23	J. E. Carter	150	150	150+192	655
24	R. Elliott	150	150	150+187	642
25	P. H. Gaunt	150	150	150+180	637
26	N. Auckland	150	150	150+173	630
27	W. Hodgkinson	150	150	150+172	623
28	T. Dobson	150	150	150+169	622
29	F. Sharp	150	150	150+164	619
30	P. Carter	150	150	150+162	614
31	N. G. Marcus	150	150	150+152	612
32	D. Neil	150	150	150+145	602
33	K. Oliver	150	150	150+120	595
34	M. G. Richardson	142	150	150	570
35	J. Arnot	150	140	150	442

Open Glider: Thurston Cup (90 entered)

1	J. E. Carter	150	150	150+526	Total
2	J. Williams	150	150	150+522	976
3	G. C. Hart	150	150	150+392	972
4	M. Woodhouse	150	150	150+313	842
5	P. N. Tribe	150	150	150+259	763
6	A. Cordes	150	150	150+180	709
7	S. R. Philpott	150	150	150+167	630
8	W. Colledge	150	150	150+167	617
9	J. Foster	150	150	150+108	617
10	D. J. Oldfield	150	150	150+102	558
11	J. Cooper	150	150	150+99	552
12	B. Parkinson	150	150	150+86	549
13	J. Cuthbert	150	150	147	536
14	G. Oulds	150	150	136	447
15	M. Gregorie	150	122	150	436
16	C. Edge	150	107	150	422
17	J. Baguley	105	150	150	407
18	J. Oulds	150	150	101	405
19	R. Staines	150	150	91	401
20	G. Mannion	111	129	150	391

More results on p.462



On the trail of a **COMET**

Heading: A vision to gladden the hearts of aviation enthusiasts everywhere - rebuilt Grosvenor House lifts off from Mildenhall (starting-point of the 1934 'MacRobertson' Air Race) on 24th May. (Mike Phillips photo). Below left: Fred 'Black Magic' Hempall of the Lancashire MAS built this bevel-gear rubber-driven Comet in 1935. Model made several short-duration flights. Below: From the early '70s - Mick Reeves and his simplified, twin-Wankel R/C prototype. Below centre: Pictured some years ago this famous Hatfield landmark has been recently restored too. Fibreglass replica - have there been two? - replaced original, long-gone wooden model. Bottom: The first complete Comet (later G-ACSR) climbs away on test bearing manufacturer's marking E.1. (Flight photo).

THE DATELINE Sunday, 17th May; 1.28pm was the momentous first flight of de Havilland DH88 Comet 'Grosvenor House' after a fourteen-year restoration to airworthiness. The bright red record-holder was aloft from its birthplace, the now-British-Aerospace airfield at Hatfield for over forty minutes, during which time lucky aeromodellers at our Large Scale Rally at Old Warden could gaze as it overflowed murky Shuttleworth - its static-exhibition home for many years after presentation by DH in 1965. Since the maiden flight Comet-chasers have been delighted by two fine public displays; first at Mildenhall - starting point for the historic 1934 'MacRobertson' England-Australia Air Race - on 23/24th May and then the following weekend when it appeared for the first time in the Old Warden circuit.

This is not the place to re-tell the enthralling story of the Racing Comets, nor to detail the race-winning accomplishment of Grosvenor House in particular. That has been done by other pens with more space at their command. Nor have we room for the often-heartbreaking tale of restoration - first at Old Warden itself, then, as setback dogged progress and costs skyrocketed, at Farnborough. Nevertheless, we should honour the impact made by the original team of three machines, designed and built in eight months with the dual aim of

preventing an American whitewash and helping to restore faith in British aviation, so much in the doldrums just then. What better motive to build a model?

Our photo-pages will inspire with a scattering of full-size and model shots. Although super-sized Comets are very much state-of-the-art today, we urge study of the remarkable Stateside replica, twin Brown Junior powered, shown here!

An ambitious C/L DH88 - twin Frog 500s, 78in span and unflown, - built by J. Phipers of the DH Technical School appeared in our Model News feature in October '51; despite that interesting family link no further news was heard. But surely the most attractive of Comet control-liners is J. Last's charmer for motors up to 1cc. Plans are still available from APS and could well be scaled up. . .

It is the attractions of R/C which have engendered the greatest number of replica Comets. In the mid-sixties Ray Norris and friends put over 1800 hours work into a six-foot Grosvenor House powered by ETA 29s and equipped with Orbit 12 reed gear which actuated not only flight controls but lights, flaps and undercarriage. The model was wind-tunnel tested at speeds of up to 180mph but this precaution notwithstanding it was virtually destroyed on its second flight. Equipment failure was blamed. R/C Comet interest was revived in the early '70s when Mick Reeves aired his 'rehearsal' prototype for an intended



production of numerous solid scale Comets before the war. Accuracy is questionable! Note reference to the 'reticelle' undercarriage. Bottom: This is more like it! J. Last's 29 1/4in. C/L DH88 for up to 1cc motors is available from our Plans Service as drawing CL694 - price £3.80 including postage. Colour schemes given for all three 'MacRobertson' machines. Robust model is to 1/18 scale - who'll double it up?

LENGTH - 29' 0"

LANDING LIGHT.

RACING NUMBER
FINIS BALANCE

34

G-ACSS

THE UNDERCARRIAGE IS RETRACTABLE, BUT IS SHOWN IN EXTENDED POSITION.

9' 8"

NOTE.
REGISTRATION LETTERS ON LOWER SURFACE OF UPPER WING. THE LETTERS AC APPEAR BETWEEN THE ENGINES, THE LETTER G AND THE DASH APPEAR UNDER THE LETTERS SS ON THE UPPER SURFACE ETC..

OTHER VARIATIONS - PITCH AIRSCREWS.

COLOURING.
THE FINISHING DONE BY SCOTT AND CAMPBELL DURING THE ENGLAND-AUSTRALIA AIR RACE WAS COLOURED AS FOLLOWS. ALL RED, THE REGISTRATION LETTERS, NAME, AND LINE ON SIDE OF FUSELAGE, BEING WHITE. AIRSCREWS SILVER. RACING NO. BLACK ON WHITE COLORED.

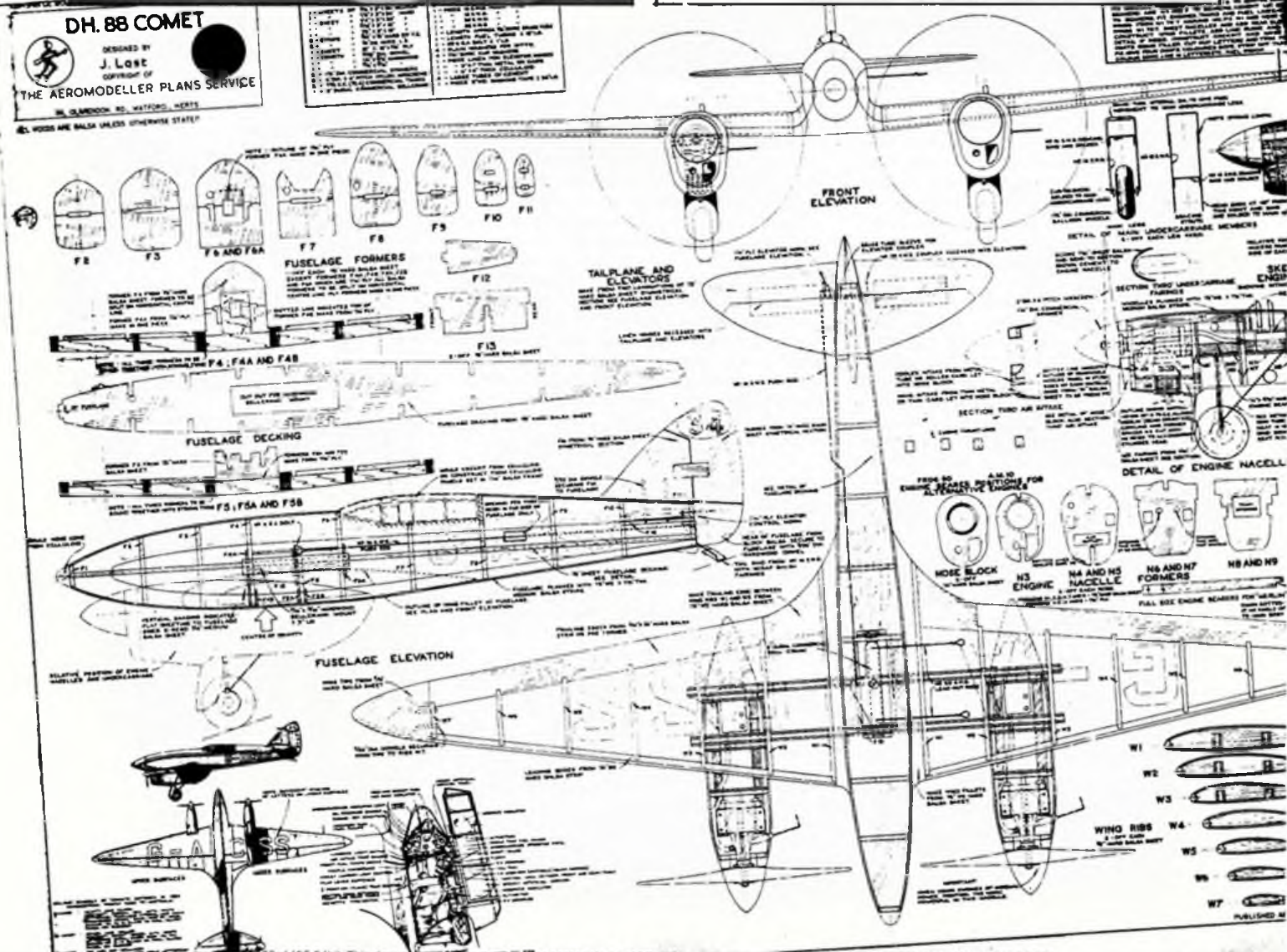
CROSS SECTION.
THESE ARE YOUNG MEN'S ELEVATION THE FUSELAGE PART AN ANGLE SECTION IN FRONT OF THE TAIL FIN.

CONSTRUCTION.
ALL WOOD. WHOLE MACHINE COVERED WITH SPRUCE STRIPS FORMING SMOOTH SKIN. ENGINE COULDS ARE BRISTOL.

SCALE IN FEET 3/8" INCH = 1 FOOT.

DRAWN BY J.A. BARNARD, 1924

DESIGNED BY
J. Last
COPYRIGHT OF
THE AEROMODELLER PLANS SERVICE
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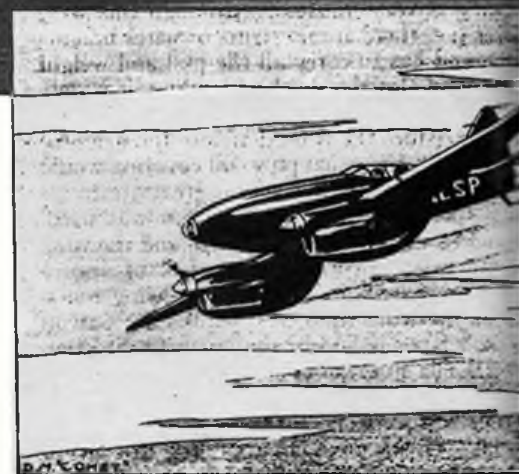


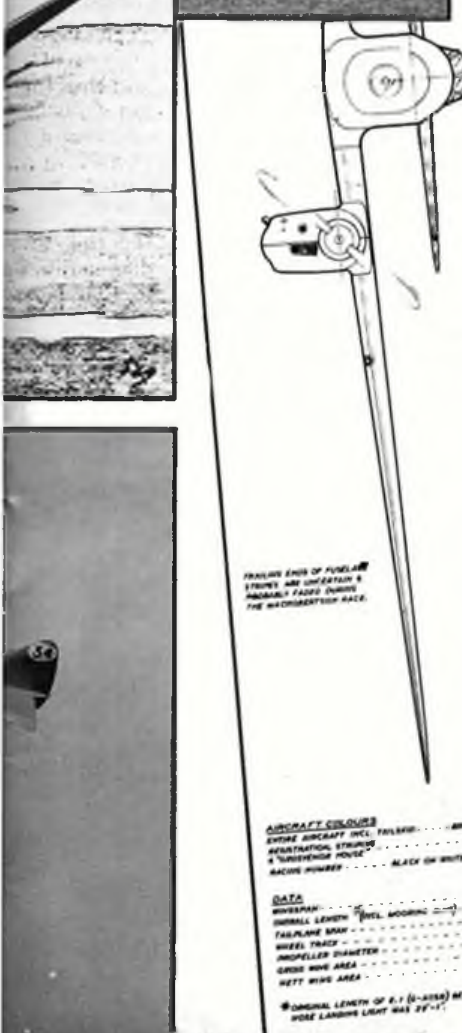
Class I contender, which he described as a docile performer. Contemporary reports of this model prompted a sad tale from Ron Masterman who recalled how his smaller OS 15 powered 'CSS had been possessed of hair-raising characteristics, blamed on incorrect thrustlines, before a premature engine cut brought the project to an end (promises of a larger replacement apparently came to nothing). But it has to be said that cover subject, Hansruedi Zoller's second-place entry in the last World Champs flies as if on rails; and back in the US we hear that Keith Shaw reports breathtaking performance from his 1/6th replica of 'CSP (a pleasant change!) which flies on two Keller electric motors. Next to delight us will be the Boddington/Toyer giant seen here; and coming soon is Chris Bradford's twin-Laser R/C project incorporating many full-size techniques (carbon fibre may well represent the kevlar forward decking of the restored 'CSS) to keep the weight down. Incidentally, Chris recalls how stunned he was to discover the 'real' Grosvenor House at Shuttleworth some years ago - he had no idea that it had been preserved - and he was motivated to build our APS control-liner for a couple of Merlins. And to go back to the beginning, Alex Imrie presented us with the following period gem - before reading, reflect that the winning craft is now back in the air after years of dormancy under tarpaulins, ignominy of display at the Festival of Britain (it was hung from the ceiling, extensively lightened and with

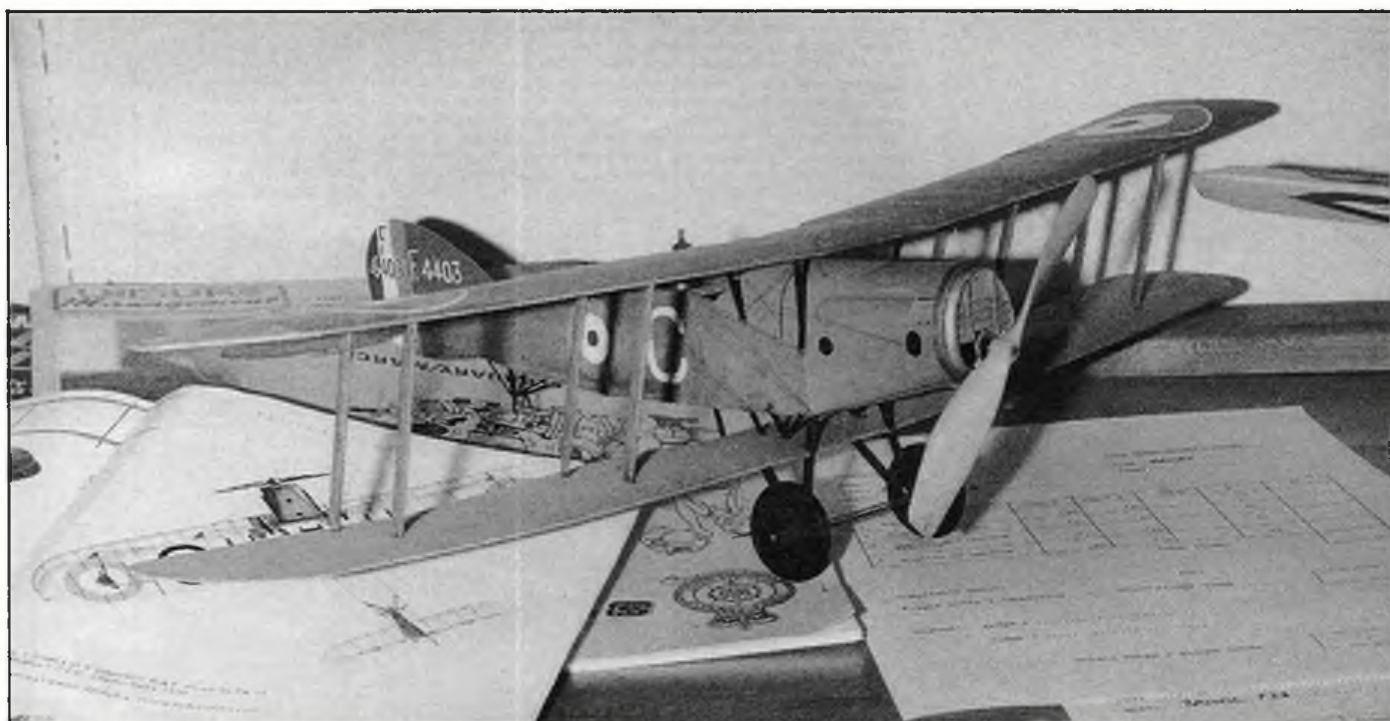
holes drilled through the spars so that it could be suspended), languishing on static display and the trials and tribulations of restoration. . . 'Present-day enthusiasts will find it hard to fully appreciate the fever generated by the excitement of the 1934 Mildenhall to Melbourne Centenary Air Race, and to understand the way in which the whole nation followed the progress of the leading machines. I remember, when collecting milk at the local farmhouse, having to ask for the names of the winners (my family did not have a wireless set then) and repeating 'Scott and Black' all the way home in order not to forget the vital message that my parents eagerly awaited. . .

More full-size gen next month!

Now - what's your Comet story? Did you build one at the time of Grosvenor House's greatest achievements - or have you tried since? With what results? Tell us and send photographic evidence!







UP AT UPAVON...

WITH THE KIND permission of the Station Commander, Squadron Leader Barnes, the RAFMAA annual Indoor Championships were held at RAF Upavon in Wiltshire on the 11 and 12th April. This was our third year at this venue, previous sites including Brize Norton, Marham and Cardington. The gymnasium at Upavon is a converted hangar, and with a flat internal roof at about 33ft, recently-sealed main doors, about 150 by 100ft of walled-off floor space, heated changing rooms and lots of space for working, it is by far our best low-ceiling site.

Meetings are normally held twice a year: the Champs in April, and a Fly-for-Fun/Trimming meeting in October. Local SMAE members are invited to the latter so if you are interested in attending drop me a line as prior contact is essential to gain entry to the site. (My address is: Flt. Lt. Andy Sephton, 3 Bury Mead, Codford St Peter, Warminster, Wilts. BA12 0NU). Fun events this year will include: Portsmouth Duration, Helicopter climb (fastest from floor to ceiling with an *Indoor* helicopter) and a Peanut

Flt. Lt. Andy Sephton reports on the 1987 RAFMAA Indoor Championships

pylon race (fastest time for two laps round two pylons set 20 feet apart) - with a Peanut scale model).

That's the advert over; now for the report. The six events held at the Champs are HLG, Easy B, CO₂ Scale and CO₂ Duration to SMAE rules. In addition, Helicopter is flown using the SMAE free flight rules, and Peanut Scale to MIAMA Rules. These are similar to SMAE rules in the way that the scale points are allocated, but there the similarity ends. The major differences are; the total points for scale are added and then multiplied by the workmanship mark - therefore a well built model will always score well, no matter its configuration. The flight score is given by the two best times

from nine attempts - thus the aircraft's best performance is (almost) assured and there is lots of flying for the spectators. Finally, the best score in each group (static and flying) is valued at 100% with other percentage scores allocated proportionally. The static and flying percentages are then added to give a final mark and order of merit.

On to the flying!

With over 30 people in attendance, 15 of whom were eligible to compete, there was little time without at least one model in the air. Some of the guests this year were, therefore, conscripted to act as judges for the scale competition: Butch Hadland and Doug McHard for CO₂ Flying, Lindsey Smith and Tony Buckingham for Peanut, and Doug Sheppard and Bob Jones for CO₂ Static.

The weekend itself was quite cold with a mild overnight frost. This, coupled with a wind in the only direction that could affect us and low pressure overall gave less than ideal conditions. However, the scores were quite respectable for all that, and the weekend's flying was enjoyed by all.



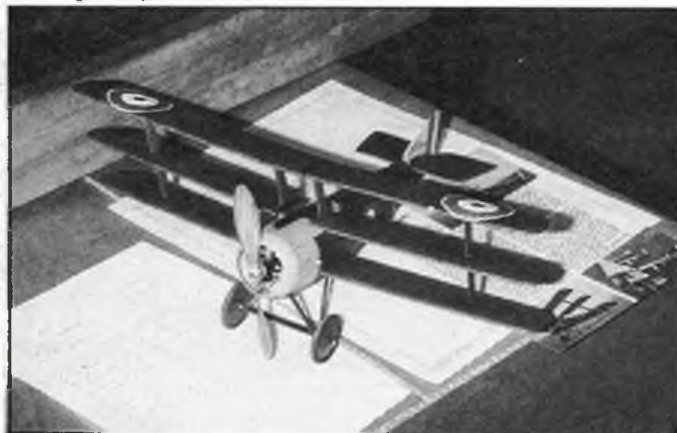
Taking the events in no particular order, I'll start with Easy B. This was dominated by Laurie Barr's Fly Rod, with this design taking the first three places. Other models included a B Simple and a Portsmouth model. The latter was, of course much too heavy, but it did fit the rules! The drift in the hangar tended to limit the flight duration, but as most of us were having problems with selecting the correct make and batch of rubber, I suspect that the times achieved were near enough our best, I must make a mental note to test my rubber before next year's comp.

Helicopter is always a good event for beginners, as the models can be built quickly (one was made in 30 minutes during the competition as the owner had left his others at home) and the use of rubber can be learned (or re-learned!). Two designs were published in the last RAFMAA News to inspire builders; an open frame model for microfilm, and a 'solid' version in soft balsa. Both were seen, but it was the IMS Parlour Copter that won the day, the same design that had won last year.

Peanut Scale drew quite a lot of entries considering that it is perhaps the most difficult class to enter. The high wingers present were both distinguished with a very impressive lightweight finish, but unfortunately the Spitfire failed to perform. However, Ian Pallister's Miles M18 recorded an impressive 33 seconds. Biplanes were represented by a Bristol Scout by Graham Collins, and a duo of Andreasson BA4Bs; George Bennet's version recording 25 seconds in the air from an ROG. The characteristic 'rocket' take-off from the FAI rubber used was far from that achieved by the original! This event was won by my CO₂ rubber convertible Lacey. As the CO₂ version uses a Brown A-23 mounted in a removable nose block the conversion is quickly implemented. Both variants are a little heavy, 18 grams for the Peanut and 21 grams for CO₂ but the flight characteristics do not seem to be much affected. The CO₂ version is marginally faster, but the Peanut still flies for over 45

Heading: Flt. Lt. Dave Causer's CO₂ Bristol Fighter, seen here amidst documentation and scoresheets, gained high static points. . . Across page, far left: This neat Peanut Spitfire prototype, also by Dave Causer, is based on the Aerographics plan. Trimmed out at the meeting it shows great potential. Below left: Sqn. Ldr. Ian Pallister's twin-Telco Catalina on its take-off dolly; splendid model was later to impress at the Indoor Scale Nationals. Below: Third in CO₂ Scale was Sgt. P. Morgan's Sopwith Triplane. Below right: The Peck kit is the basis of Ian Pallister's Miles M.18 which is finished in 'Strathallen' colours. All photos: Lindsey Smith.

Readers intrigued by mention of Helicopter models in this account, look out - we'll be featuring a couple in Aeromodeller soon!



1987 RAFMAA Indoor Championships

Peanut Scale

			Points	%	Time	%	Total	Points	
1	Flt Lt A. Sephton	Farnborough	Lacey M10	280	77.7	1.51	97.4	175.1	15
2	Sgt P. Morgan	Lyneham	Lacey M10	240	66.6	1.54	100	166.6	2
3	Sqn Ldr G. Collins	Wittering	Bristol Scout	360.5	100	.49	43	143	9
4	Master D. Morgan	Lyneham	Lacey M10	140	38.8	1.50	96.5	135.5	6
5	Flt Sgt P. Groves	Swanton Morley	Fike E	266.25	73.9	.69	60.5	134.4	5
6	Flt Sgt J. Romer	Oakhanger	Wittman Tailwind	180	49.9	1.36	84.2	134.1	4
7	Sq Ldr I. Pallister	Cranwell	Miles M18	231	64.1	.58	50.9	115.0	3
8	Ch Tech G. Bennett	Brize Norton	Andreasson BA4B	110	30.5	1.10	61.8	92.3	2
9	Mr G. Counsell	Wyton	Nesmith Cougar	64	17.8	1.14	64.9	82.7	1
10	Flt Lt D. Causer	Valley	Spitfire Prototype	288	79.9			79.9	1
11	Mr J. Warner	Harrogate	Luton Minor	39	10.8	.44	38.6	49.4	1
*	Flt Sgt P. Groves	Swanton Morley	Andreasson BA4B	203	56.3	.64	56.1	112.4	1
*	Mr K. Stubbs	Lyneham	GanaGobie	88	24.4	.57	50	74.4	

* Multiple entry

CO₂ Scale

				Static	Flight	Total	Points
1	Flt Lt A. Sephton	Farnborough	Lacey M10	1042	823	1865	15
2	Flt Lt D. Causer	Valley	Morane L	740	769	1509	12
3	Sgt P. Morgan	Lyneham	Sopwith Triplane	948	180	1128	9
4	Sqn Ldr I. Pallister	Cranwell	Catalina	1019		1019	6
5	Sqn Ldr G. Collins	Wittering	Piper Cub	763		763	5
6	Mr G. Counsell	Wyton	Bellanca Champion	94	470	564	4
7	Mr J. Warner	Harrogate	Piper Super Cruiser	104		104	3
*	Mr K. Stubbs	Lyneham	Tiger Moth	522	996	1518	
*	Flt Lt D. Causer	Valley	Bristol F2b	937.5		937.5	
*	Sqn Ldr I. Pallister	Cranwell	Chipmunk T10	859		859	

* multiple entry

Hand Launch Glider

World London Club			Best	Points
			two	
1	Flt Lt A. Sephton	Farnborough	62.9	15
2	Sqn Ldr I. Pallister	Cranwell	56.4	12
3	Ch Tech G. Bennett	Brize Norton	52.4	9
4	Flt Sgt G. Hart	Lyneham		
4	Flt Sgt G. Hart	Lyneham	46.0	6
6	Ch Tech D. Clayton	Brize Norton	40.8	5
6	Flt Sgt P. Groves	Swanton Morley	40.5	4
7	Sgt P. Morgan	Lyneham	26.0	3
8	Mr J. Warner	Harrogate	18.0	2
	Mr K. Stubbs	Lyneham	47.0	
	Mr W. Barker	Cranwell	32.1	
	Mr W. Barker	Cranwell	32.1	

Easy B

			Best two	Points
1	Flt Sgt G. Hart	Lyneham	14.07	15
2	Flt Lt A. Sephton	Farnborough	12.34	12
3	Flt Sgt P. Groves	Swanton Morley	9.44	9
4	Mr J. Warner	Harrogate	6.18	6
5	Sqn Ldr I. Pallister	Cranwell	4.53	4
6	Mr G. Counsell	Wyton	2.09	

CO₂ Duration

		Best	Points	
		two		
1	Sqn Ldr I. Pallister	Cranwell	8.36	15
2	Flt Lt A. Sephton	Farnborough	5.27	12
3	Flt Sgt G. Hart	Lyneham	4.31	9
4	Mr J. Warner	Harrogate	2.15	6
5	Sgt P. Morgan	Lyneham	1.05	5

Helicopter

		Best two	Points	
1	Flt Sgt P. Groves	Swanton	4.20	15
2	Sqn Ldr I. Pallister	Cranwell	3.14	12
3	Ch tech G. Bennett	Brize Norton	2.46	9
4	Flt Lt A. Sephton	Farnborough	2.45	6
5	Mr G. Counsell	Wyton	2.28	5
6	Master D. Morgan	Lyneham	1.46	4
7	Sgt P. Morgan	Lyneham	1.35	3
8	Mr J. Warner	Harrogate	0.46	2

seconds ROG.

The best flights in CO₂ Scale were from Keith Stubb's Aerographics Tiger Moth. In yellow finish, it made several successive flights looking for all the world like its full size counterpart. Most impressive, however, was Ian Pallister's Catalina for twin power. The model was untrimmed and so was not flown in the competition (but subsequently acquitted itself well at the Indoor Scale Nationals).

HLG provided a release from any frustrations during the weekend with an Upstart taking first slot; a Coot was second and an Indoora third. Ten attempts were allowed to achieve two scoring flights

although few modellers needed that many.

Finally, CO₂ duration. This was the least supported event of the weekend with only five entries. First and second place models were based on Ian Dowsett's machine published in the last *Aeromodeller Annual*, the No 1 aircraft having a copy of the folding prop used by Mark Groome. Given the poor conditions for CO₂ in the hangar, then the 4:39 best flight by Ian Pallister was most enviable. He also managed to kill all the vibration from the motor, something that I have never been able to achieve.

That's it! A marvellous time was had by all. Why not join us in October?



MIND THE LINES

More of the Bob Palmer story. Over to Ron Prentice. . .



IN MY LAST COLUMN the Bob Palmer story had reached the stage where he was trying to learn to fly his Orwick .64 powered model inverted, and couldn't quite get the hang of it! Bob's way of overcoming this perennial problem was unique in my experience. He says: 'I decided to build a new plane with two landing gears, one on the top and one on the bottom. It also had twin rudders so that I could have two tail wheels and take off upside-down or the right way up. So this is what I did; I took off upside-down and flew until I'd had enough. I then gave full "down" to return the right side up! This worked great. I kept going longer and longer upside-down until I mastered it. I then went back to my other plane with conventional gear and successfully flew it inverted.

Then J C Yates and I started practicing team stunt. We were very good at it. Our planes were just alike with Orwicks in them, doing 86mph. We stayed right together, sometimes only inches away. Yates then started using an Orwick .74 and doing 90mph. His stunting was spectacular; pull-ups just clearing the ground. Flying like that was going to be hard to beat! I then had another idea, to slow down, to build bigger, and to try to do more precise stunts.

'In 1945 as the war ended I transferred into display model building and stayed there until 1947; then I was laid off — no work. I carried on flying stunt, but a little slower then before. However I still didn't win any comps; a fourth-place was the best I could do.

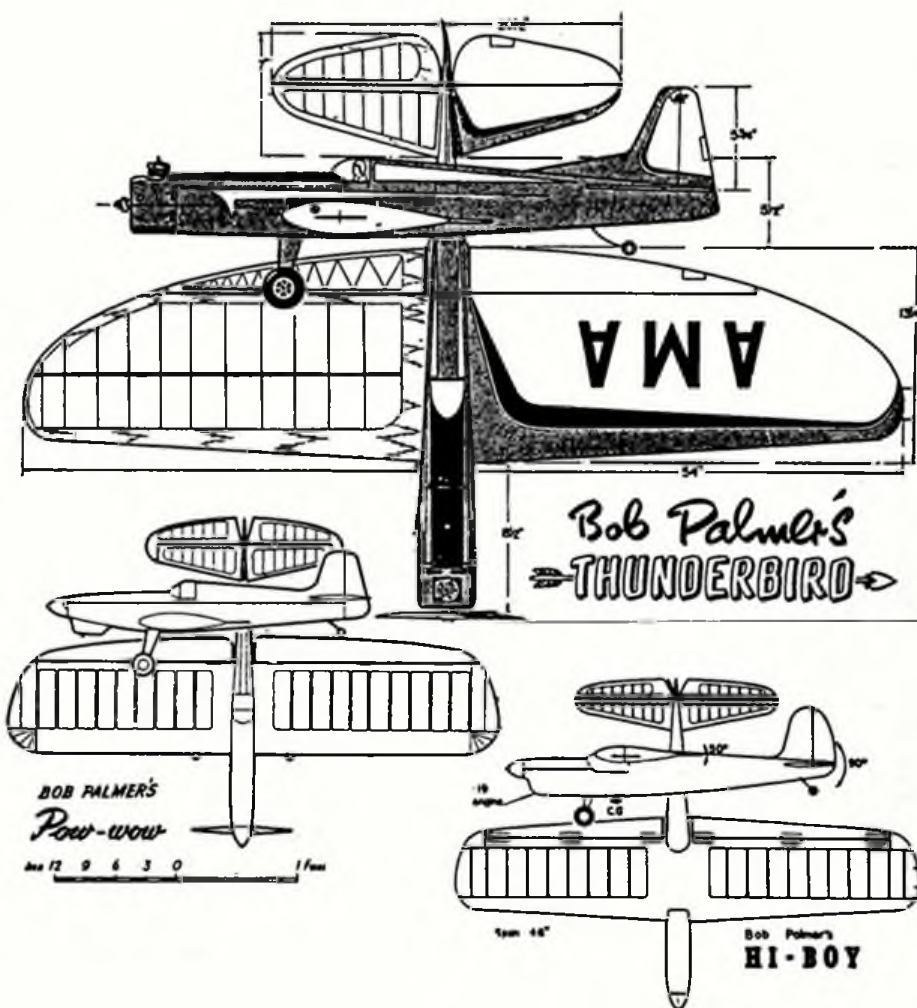
'In 1947 a big contest was held at Tucson, Arizona, so I got ready three planes, a scale Lockheed Altair and my stunt planes. Yates and all the younger fliers were there. The temperature was over 100 degrees and we were at over 5000ft. altitude. Everyone was changing props to lower pitch; I didn't bother. As the contest progressed, Yates and the others were not pulling out so good, then my turn came. I had an 8in. pitch prop and I ran the

motor slower. I put in a beautiful flight to win 1st place for which I received an \$150 watch. I also won team stunt with J C, and also scale. Soon after this comp, I went to Salt Lake City with J C and won again. I felt pretty good — my idea of slowing down and flying more precise worked real good.

'Dave Slagle was still right in there and flying well. He went to the Nats in '46, '47 and '48 and won the Jim Walker Trophy. I was real proud of him, remembering the

times we flew together with me teaching him.

'Then on January 23rd 1948, I lost four fingers in an accident at a small business. I also lost my wife, my child, my home — everything! I was in despair to say the least. My hand was slow healing, and the damage had involved my wrist. It was the right hand too so I thought my flying days were over. I tried to fly with my left hand, but nearly crashed. About this time the glow plug was invented, which would save a lot of weight; then the insurance company furnished me with a glove with fingers attached that was moulded to my hand and was laced up the top like a shoe. I got to looking at it one day and decided to remove the fingers and fix it so I could put a handle on it. This worked and I very carefully made my first flight with my new gadget. I did fine with a Go Devil Jnr with an Ohlsson .23 aboard. About this time I also invented the flap on the wing coupled to the elevator. I had the idea for some time, but my hand held me back. I flew for a while with the Go Devil/Ohlsson combination and eventually tried my Orwick model. It pulled on my gadget so hard that I couldn't fly so good, so it looked like small engines would be my limit. Then one day my boss wanted to learn to fly, so we put a .23 in a Go Devil Snr (which was designed for an Orwick 64) and this flew so good with flaps that it was unbelievable. So I made a new one and took it to Frisco to a big contest and won 1st. I was so happy



to be back flying and winning. I took it to seven contests after Frisco and won all of them.

'After this I went to Veco Products. Hi Johnson and myself made the Chief, the Warrior and several other kits. We finally decided that the ideal power was .35. I went to the Nats in '49 but crashed during practice. In 1950 I came second and in '51 I came within one-third-of-a-point of winning. Finally in '55 I got 1st place again.

'In '54 I designed the Thunderbird which was probably the most well known of my designs. In '56 I was offered a trip to Africa, to come back via England to fly demonstrations. Everything went fine on the trip; indeed, many modellers in Africa were flying T-Birds. I had learned to fly without looking at the plane and so on my last flight in Africa, I flew totally blindfolded and still stunted the plane. I had a fine visit to England and met Ron Warring and Henry Nicholls. When I returned to the States, I left my T-Bird in England so that the British modellers could fly it. *(It still exists; Dave Day is at present restoring it on behalf of Ron Moulton into flying condition. RP).*

'I carried on flying C/L until the early 60's when I gave it up to devote more time to R/C, which I had been doing since 1950.

'Although I retired in 1983 after being a wind tunnel model builder at Lockheeds for 23 years, I still make R/C fuselages and cowl out of fibreglass and have a

temporary job making helicopters 10ft. long with 10ft. diameter rotor blades. These models weigh 140lbs, and the fus is 20in. deep and 14in. wide. They have sensors on the fus and the Army are using them for target practice with lasers. They look very impressive in the air!

That brings the story of Bob Palmer up to the present day. It is obvious that his pioneering enthusiasm has done much to bring the modern F2B aerobatic model to its present form. We wish him many years of happy retirement and long may he continue to enjoy this wonderful hobby of ours.

Now that I have managed to contact Hal de Bolt, who has furnished me with a considerable amount of information about his beginnings in control line, I hope to begin a two-part article on him in the near future.

More Stateside stuff

Finally in this 'All American' month, I can tell you that I recently had a letter from that well-known stunt flier and font of many Vintage and Nostalgia era plans, Tom Dixon. Tom writes to say that he has been asked by 'Mr American Old Time Stunt' John Miske to clear up a point regarding the legality of the recent *Aeromodeller* plan of the Senior Monitor. It appears that John declared it not to be legal as 'no kit or published plans were

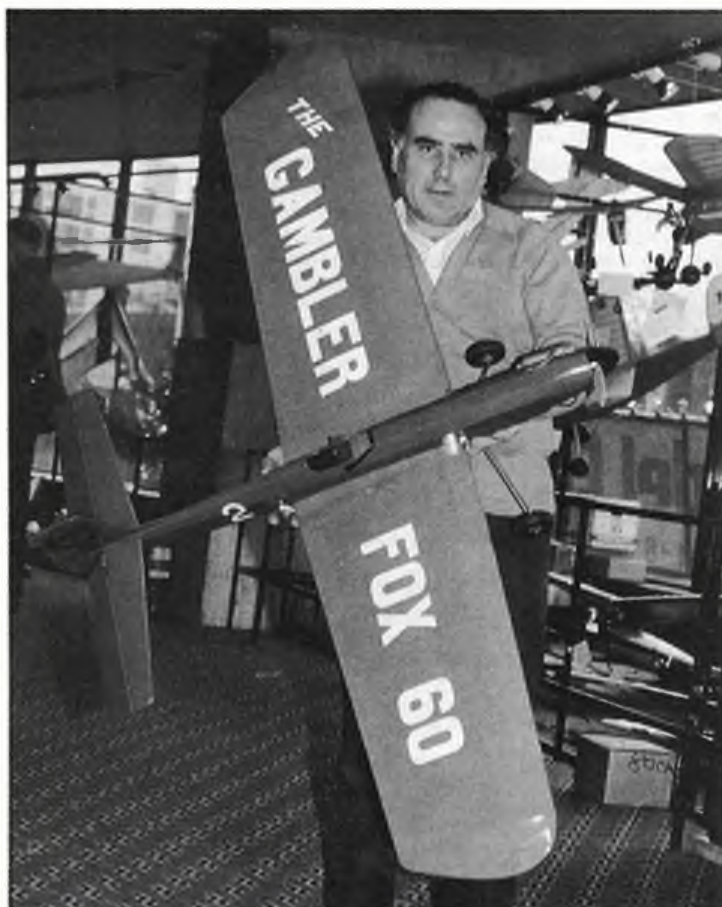
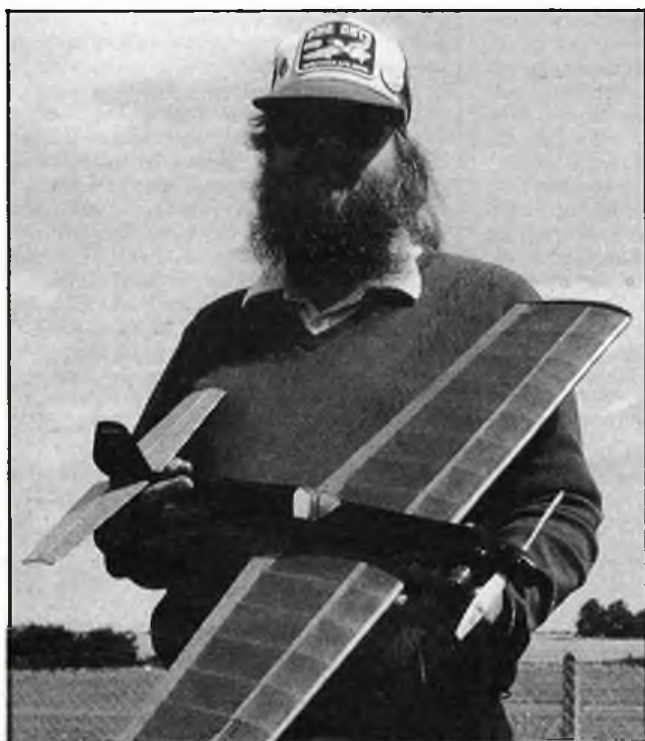
available before 1.1.53'. He then stumbled across a photo in an early Model Airplane News depicting Johnny Nunn of Barking starting the engine of his 'Monitor Major kit job' at the annual Fairlop Gala. Which confused them both.

I phoned Henry Nicholls to try to clear up the matter. According to Henry this model was advertised in the May 1949 *Aeromodeller* as 'shortly to be available'. Only two Monitor Majors (or Seniors) were built; Henry's original prototype powered with an Anderson Spitfire and Johnny Nunn's Super Cyke powered version built from Henry's plans. It was decided that because of the popularity of smaller motors, the smaller 38in. span Monitor would be a better commercial proposition so the Major was not proceeded with. However, I did point out to Tom that the rules in the UK state that verifiable unpublished models designed in the appropriate era *are* allowed and there is photographic proof of the existence of the Senior Monitor it is undoubtedly eligible for UK Old Time Stunt competitions. There still seems to be some doubt about it in the States however...

Tom tells me that the most popular OTS design across the pond is the Trixter Barnstormer — a fine example of which has been flown here by Mick Taylor of Peterborough — with the Sterling Ringmaster running it a close second place. No surprise, perhaps.

Until next time: tight lines.

Heading: No line in sight, actually. Bob Palmer's current model flying activities include scale R/C with his Corsair and FW 190. Left: The famous Thunderbird was preceded by the Pow-Wow and Hi-Boy (pics from The Control Line Manual). Below: Two famous stunt 'names'. Who's this at left? 'Tis Dave Day, present custodian of Bob Palmer's own Thunderbolt, here with his Ambassador. At right: John Perry shows off his Gambler at the last M.E. Exhibition. No plans existed, so model was drawn from photographs.



BALSA CUTTINGS

More sharp comment from our flashing blade, Cyano de Bergerac

AN EDUCATIONAL establishment burdened with the task of instructing young gentlemen in the Sciences employed to this end a delightful person, who, under under pressure, would admit to having studied with Einstein. Whenever the general direction of a lesson permitted someone would say 'Please, Sir, what is Einstein really talking about?' That was enough. A rising note of anger in his voice, the old mentor would cry 'Talkink about? How should I know vot he is talkink about if he doesn't know himself?' From that stage onward, the searchers after truth might unobtrusively close their books and relax until the bell went.

The point is that whilst it is generally accepted that Einstein was frightfully clever, half-a-life-time and a trip to the moon later, no-one has yet proved that he was right. (Pray don't write in with arguments establishing conclusively that he was - your sort are two a penny). All this should be of great comfort to Tony Brookes, who seemed so down in the mouth when he wrote of 'our present dilemma' in Viewpoint in the May *Aeromodeller*. He was looking at the likely abandonment by the CIAM (whatever that is) of the Builder of the Model Rule, the marked tendency for models to originate in a factory rather than the proper place, the reaction represented by the growth of SAM '35, stagnation versus progress and the shortage of young newcomers to our hobby. The question 'Whither Aeromodelling?' hung heavy in the air.

Mr. Brookes - when this column says you are displaying a sensible and responsible concern, please believe this is genuinely meant. There is no wish to patronize. But you really must take heart. Reflect how self-regulating aeromodelling is! If the absence of a Builder of the Model Rule upsets too many people, clubs will simply say 'If you want to fly in our comp. build the job yourself.' But should you really care? You, of all people, can turn out a model to beat the factory job. Or if you can't, you jolly soon will, and then of stagnation will progress have been born. Progress we wouldn't have had but for the stagnation. Don't worry so much! It's only a trend. And you certainly should not fear that Vintage will run dry when all the history has been recorded. History has a habit of going on, Sir, rather faster than we can lap it up. 'A real Tony Brookes Vintage design.....'

People have been concerned time out of mind that without a steady influx of youngsters, aeromodelling will perish. Cayley and Stringfellow probably fretted about it. But (back to Einstein) has it ever been proved that they were right? We're still around, albeit at a higher average age supporting a wide choice of expensive

(sorry!) magazines and spending unprecedented amounts of money. True, it's mostly on Radio Control, but that's the way the biscuit disintegrates. Don't be harsh on R/C - never forget it keeps the model shops open for the real aeromodellers. Certainly things have changed a lot, with electronic and other dark delights distracting new disciples these days until they reach a later stage of development. (Some sorely-tried grandfather in the back row said 'Good thing too'). Though they might all change back again. Twenty years ago, who on earth would have believed that youngsters would take up bowls?

With moist eye...

One of the many virtues of Balsa Cuttings is the breadth of its outlook, which enables us briefly to step outside the strictly aeromodelling scene and spend a moment's thought with an allied subject - on its 69th birthday, the Royal Air Force said goodbye to Hendon. Okay, so the writing was on the wall ever since, long years ago, the tide of London swept up to and around the old farm on the Silk Stream with its aviation buildings going back to 1911, until keeping an air station there was about as useful as having a frigate moored in the Serpentine. However, you don't have to be an elderly dyed-in-the-wool olde-tyme scale modeller to feel a pang at the sound of those gates closing for ever. A lot of history was forged behind them, the stuff of which the very fabric of aviation is wrought. You could have taken flying lessons there from Bleriot in the same year as he flew the Channel, which is going back a bit - powered flight itself was only six years old. In the 1920s and '30s, the annual R.A.F. Pageant was the world aviation event, the New Types Park the summit of every manufacturer's dream, the crowd every policeman's nightmare. 'Hendon' was the name given to the first all-metal low-wing

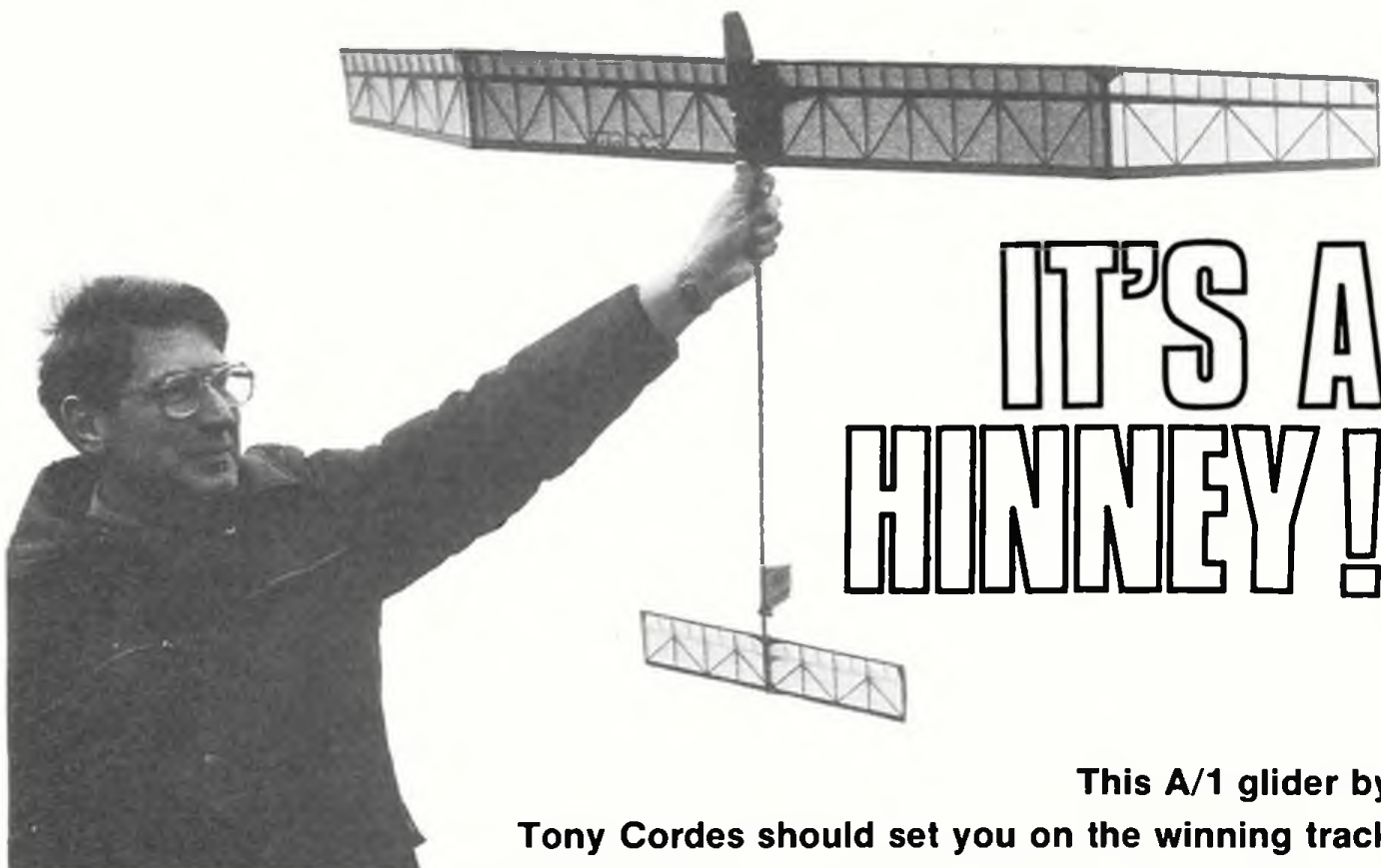
cantilever monoplane to enter RAF squadron service. Spitfires and Hurricanes were based there in the '39-'45 war. Once, the spirit of the time was such that a block of flats standing alone at the end of its own little lane by Aerodrome Road was called Aeroville. Aeroville! The Hyde, home of Airco, was within spitting distance, with Stag Lane, de Havilland Road and Mollison Way just across the Edgware Road. Now even the old Grahame-White Hangar, a Grade 2 listed building, may go. In the early forties, the air-minded British public took advantage of a unique opportunity to broaden its experience of aircraft, or more accurately as the old household insurance policies used to express it so comprehensively '...aircraft or articles dropped therefrom...'

Due to the general unattractiveness of the articles dropped the famous air-mindedness of the British public aforesaid emerged from the Recent Conflict in somewhat refined form, much more significance being attached to the importance of being donor rather than recipient in almost all cases. Nevertheless, we were soon ready again for airshows. Though alas, not at Hendon. The increasing weight and speed of Service aircraft had progressively enhanced the entertainment factor of arrivals and departures at that rather small field to a point where, even in 1937, it was felt that enough was enough. That was when the Pageants stopped. We turned towards places like Farnborough and Biggin-on-the-Bump. Even Croydon gave way to change.

In its time, for a long time, Hendon Aerodrome was the focal point of British military aviation. What an inadequate, colourless, feeble way to describe a place where magic was made. There was nowhere like it, nor ever will be again. It encompassed much that lies within the abiding interest of aeromodellers, and it would not be fitting that it should pass away without this backward glance.

Might Vintage run dry? Probably not, for there are more designs than any individual could hope to build. Andy Brough is trying to narrow the gap - his latest, this Orwick powered J.C. Jenny, was tried at the F/F Nationals. Yes - 'Mind the Lines' flies F/F too!





This A/1 glider by Tony Cordes should set you on the winning track

IT IS NOW fifteen years since the original Little Hinney design was published (*Aeromodeller*, March 1972). There has been much development of model design and improvement in competition status of the A/1 (FIG in international terms) during this period. In 1972 most contests for the class were run as local centralised events, mainly at club level; and the only major event was the British National Championships. Now A/1s or FIGs are flown at several international contests such as the Mid Summer Night Trophy in Holland and the 'Two Minute International' at the Piotou event in France. It has not yet been included as an International championship class, although pressure does exist to create a 'mini' international championship. I for one would fully support this.

I was surprised to recall that I had only built five A/1 Gliders over the last fifteen years; models of this class are very durable, and in fact it is only because I have lost three of them that there was any real need to build new models. This really is a misleading point of view because if new models are not made on a regular basis developments and progress are not possible. Little Hinney Mark III represents my development of an A/1 in line with present-day thinking.

It is of interest, I am sure, to see how the Little Hinney design has evolved. The Mark I (shown in Fig.1) was published following unparalleled contest success during the period 1970-1972. It was entered in 16 competitions during that period, winning 11, coming 2nd three times and 3rd twice. It weighed 5.1/2 ounces and

was flown quite a lot to three-minute maximums for three flights. However, rule changes in 1973 meant that models had to weigh a minimum of 7 3/4 ounces and fly to five two-minute maximums. Thus it was clearly necessary to build stronger, more durable models.

The Mark II version was published in the September 1976 *Aeromodeller*, which incorporated many structural and design changes (Fig 2). Again this followed a series of very successful contest results. The Mark II is still a very competitive machine for present day flying, especially if fitted with a circle tow hook. Circle tow has evolved during the genesis of Little Hinney and my Mark III presented here is indeed fitted with such a hook. In an attempt to attract new fliers to the class or for those fliers who simply wish to fly for fun on the local flying field, the version shown on the plan is fitted with a straight hook. This will not provide much of a handicap for fliers wishing to enter competitions as most events in this country tend to be flown in windy conditions, which can be a great leveller. Nevertheless the fitting of a circle hook has one major advantage and that is the ability to produce a high 'zoom' launch

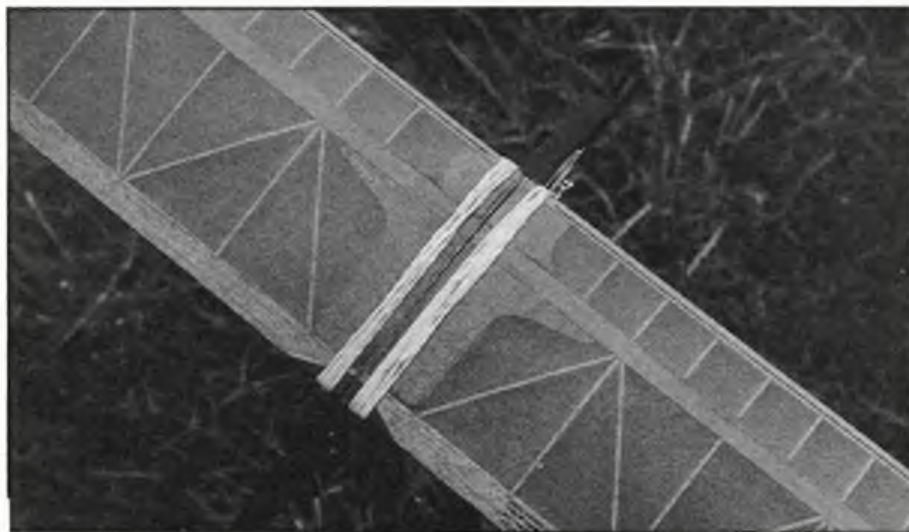
which can give an obvious advantage.

I find it fascinating to study the changes in approach to glider flying that have occurred over the last fifteen years. The Mark I Little Hinney used a sparless top surface wing which, it was argued at the time, reduced the risk of flow separation. This is in direct contrast to the modern use of invigorators (used particularly by Dutch fliers). The move to an I-Beam on the Mark II, which resulted in a surface strength following the rule changes of 1973; but it did not appear to adversely effect the glide. The Mark III is even stronger, utilising a large box spar; and the wings have been further stiffened by the use of diagonal ribs (Fig 3).

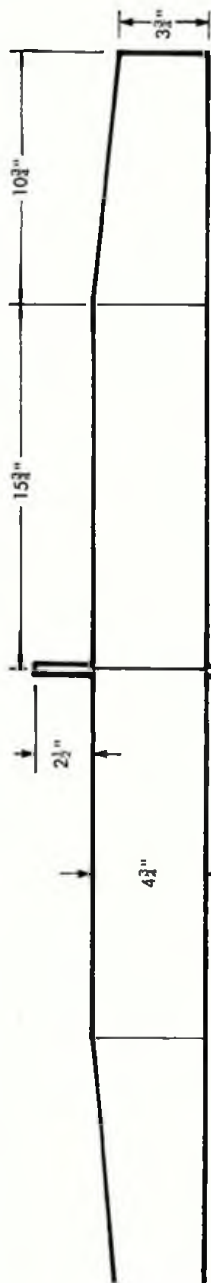
The design has also changed during this period with the tail volume coefficient being reduced from 1.1 on the Mark I, 1.05 on the Mark II to the present 1.0 on the Mark III, again with no apparent detriment. The aspect ratio of the wing has been increased from 10.5 on Marks I and II to 11.9 on the Mark III. This has resulted in the latest design being a very stable glider, well able to achieve two minutes from a good launch. The other steady developmental change over the period has

Heading: Tony displays Little Hinney MkIII - the subject of our full-size plan - at this year's Nats. Model was finished the night before the A/1 competition, trimmed out by 9am next day, and effortlessly gained five straight maxes to put Tony in the two-man flyoff where he finished just under half-a-minute behind winner John Bailey. **Right:** Wing centre-section details.

August 1987



MkIII: August 1987



At right is the circle towhook adopted by Tony for the MkIII (shown twice actual size). But don't worry, newcomers - the conventional towhook on the plan will do to start with. Details of fuselage modifications given below.

Tail volume coefficient = 1.0



Fig. 3

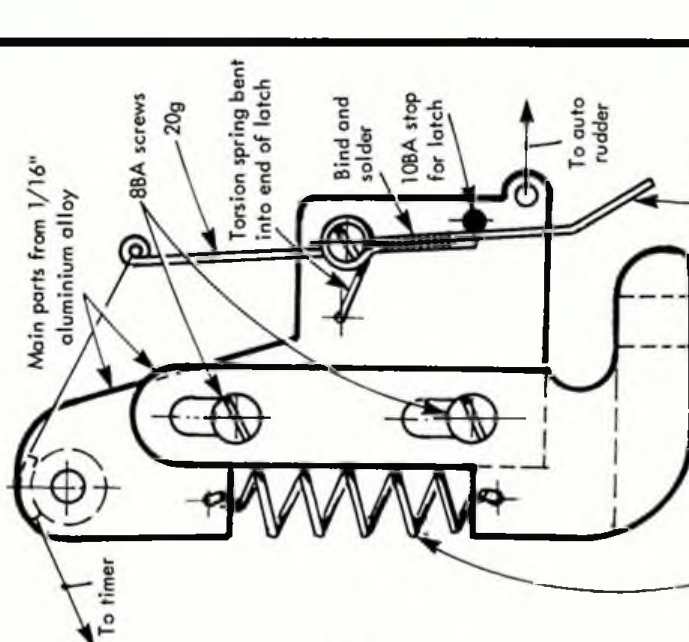


Fig. 4

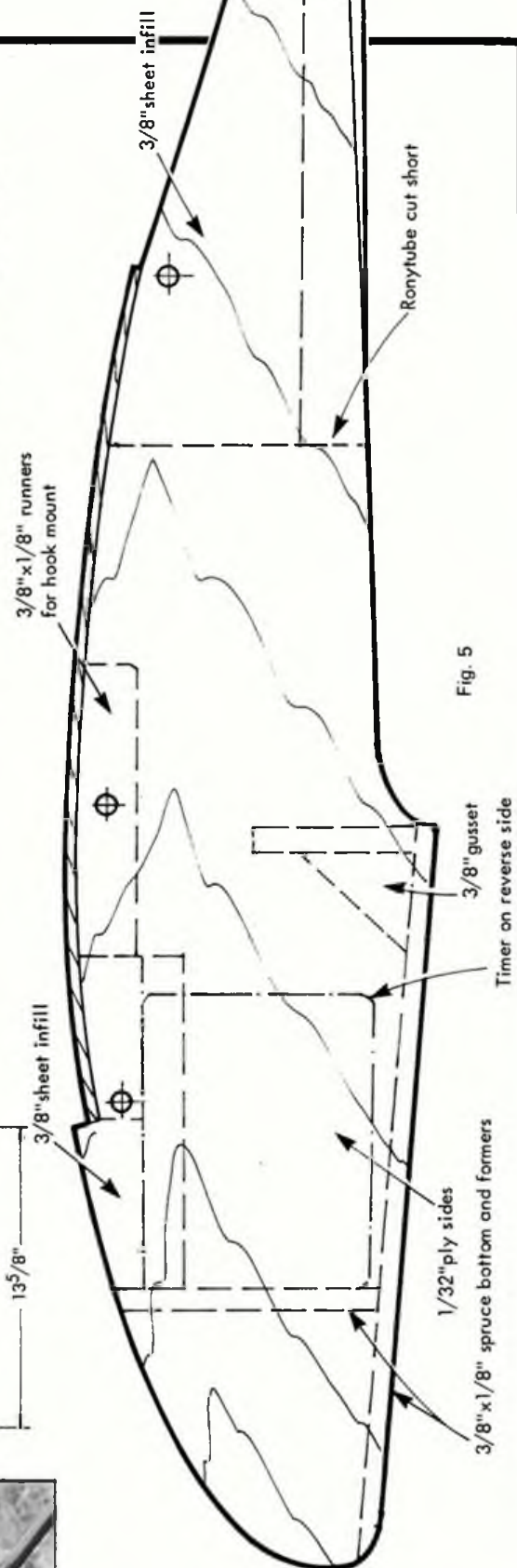
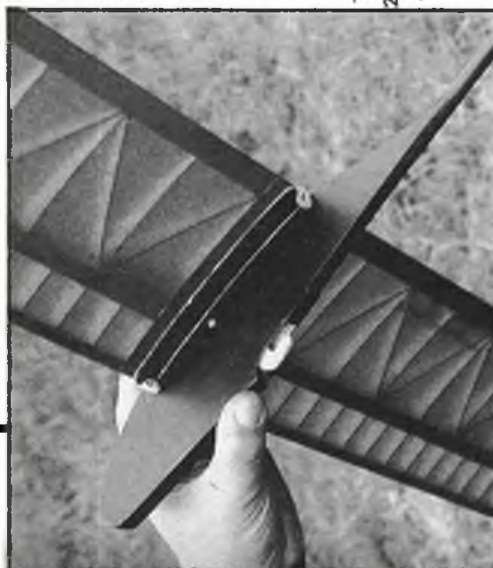
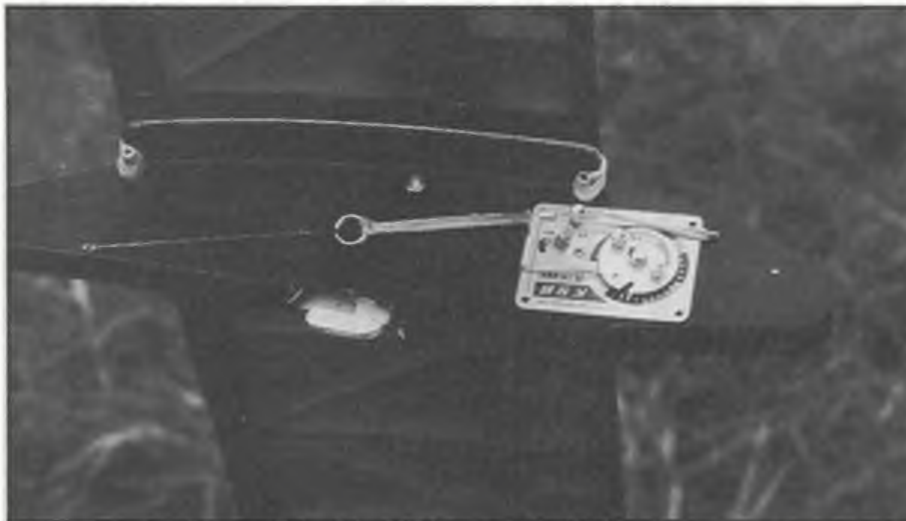


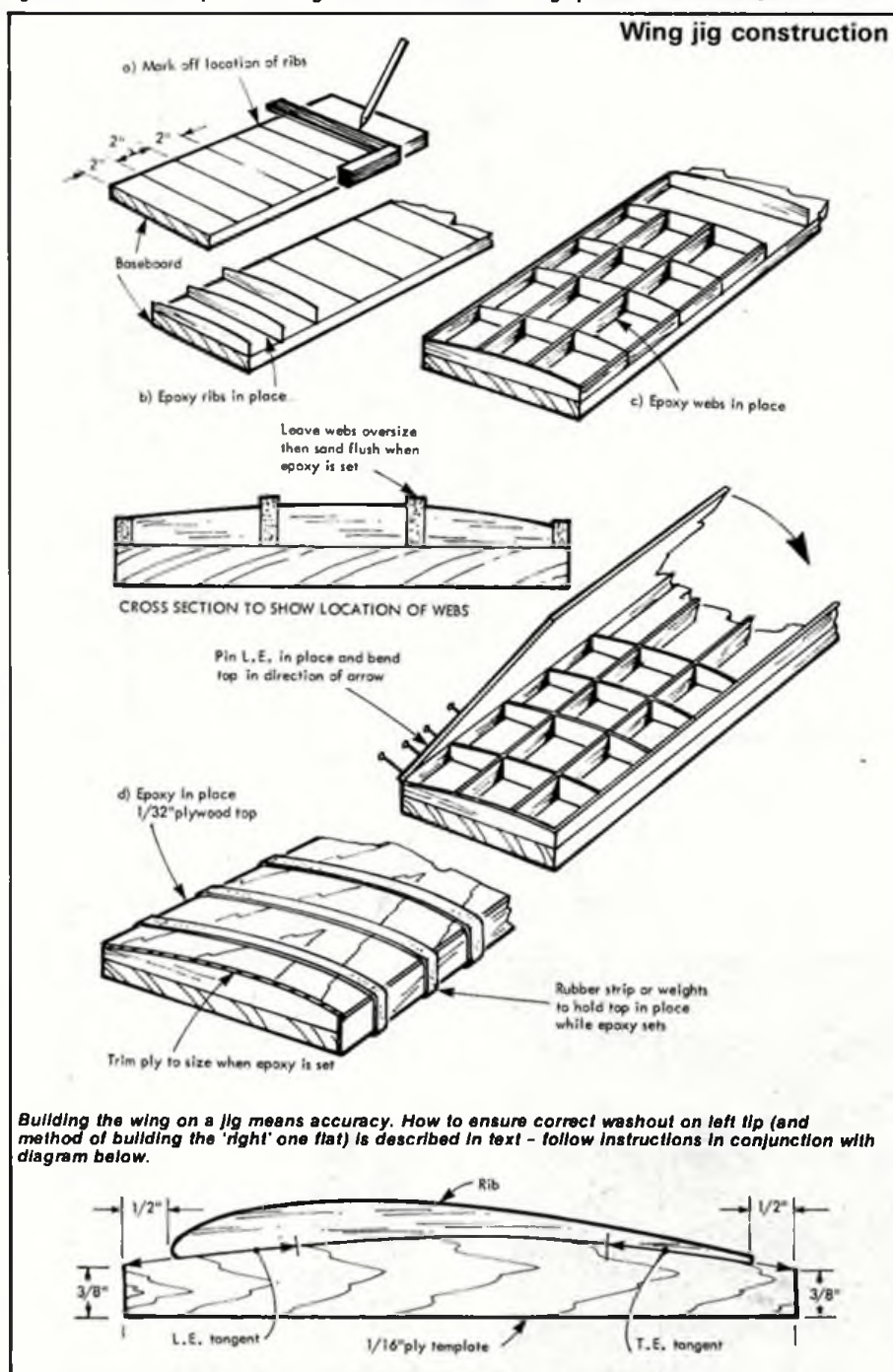
Fig. 5



Fuselage-and-wing junction shown here. Crisp construction indicates not only a new model but accuracy in building. Try and emulate!



Nose-end of the MkIII reveals inverted KSB timer - no mistake this, for linkage and 'hold-on' band may be easily arranged in an uncluttered fashion - Important on these models where space is tight. Autorudder line passes through all tube in side of fuselage pod to run inside boom.



Building the wing on a jig means accuracy. How to ensure correct washout on left tip (and method of building the 'right' one flat) is described in text - follow instructions in conjunction with diagram below.

Dependent upon the style of fuselage to be used, cut the Ronytube accordingly. I will now describe the construction of the fuselage given on the plan. Cut out the 3/8in. sheet pod and using the tube as a sanding blank, sand the pod to shape. Drill the 16 swg holes in the tube to take the tow hook, which at this stage should only be partly bent to shape; the portion of the wire which forms the outside hook is left straight for the time being. Epoxy the balsa pod core and partly-finished tow hook in place and when the assembly is dry, carefully complete the bending of the tow hook. Add the 1/32in. plywood sides allowing space for the D/T timer. Sand the ply and pod structure to a streamlined shape. Epoxy the plywood wing mount, wing fixing tubes, fin and tail mount into place.

Complete the model by building the tail from the lightest wood possible. The uncovered weight of the tail plane should be 3-3.1/2 grammes.

Covering, finishing — and flying!

The original Mark III has the wings covered with lightweight Modelspan and the tail with lightweight Jap tissue. The model is completed by fixing the lead ballast in the nose. If the model is under weight, that is, less than 7 3/4 ounces, and you wish to fly in competitions, then extra ballast must be added at the centre of gravity. If reasonable care has been taken



Tail end details. Ply rudder horn has strip spruce stops on underside - shim as necessary for desired trim. Auto-rudder line emerges from hole in Ronytube fuselage boom.

in the selection of materials and the finishing of the model, then 3/4-1oz. of ballast will be about right. Otherwise, if you are just flying Little Hinney Mark III for fun, disregard the ballast and try it as it is.

For the model to fly at its best, it is essential that the wing warps are as stated on the plan, and in particular that the centre panels of the wing are *exactly* flat. This can be checked using a flat board. The tow hook position shown on the plan will give good results for straight tow provided that the centre of gravity position is as shown on the plan. Set the auto rudder straight for tow and for about 3/16in. offset for glide, and pack the tailplane trailing edge until a flat glide results. Final trim is achieved by adjustment of the rudder settings. It is essential always to use a D/T when flying as all little Hinnies just love lift and will rapidly disappear if they are not brought down. Why not use your Little Hinney Mark III to enter your first competition? It could certainly be starting point for future success...

Try it - now!

Here's a change for CO₂ Scale — full-size plans for Cedric dela Nougerede's 25in. microlight

THRUSTER



EARLY LAST YEAR I saw a television programme on Channel Four called 'A Wing and a Prayer' - this was about flying a couple of microlight aircraft up the North-east coast of Australia. The craft were Thrusters; and I was very excited by them. Last July one of my paintings won the Airtour Sword and Award at the Guild of Aviation Artists annual exhibition. The Award part is £100 worth of flying lessons at a school of one's choice. In November I read an article in Pilot International about a two-seat Thruster which was being distributed in this country by Ian Stokes down in Cornwall. Immediately I knew where my £100 would be spent. Unfortunately it hasn't happened yet, but I hope to get over there later this summer.

All this has led to me designing a model for CO₂ power. Although it is a bit complicated, the fairly experienced builder should find no problems. On with the fun!

This particular model is of the original Australian two-seat Thruster which has been subsequently modified slightly for sale in this country, and is now called Gemini. The main differences are in the rudder size, which is now slightly reduced, and the wing support struts which are much wider. Details of the actual aircraft can be obtained from Thruster Aircraft (UK) Ltd., Barton, Bolventor, Launceston, Cornwall.

Fuselage

The main boom is made by rolling gummed paper onto a 6mm silver steel rod. Instead of just wetting the gummed surface, diluted white glue is brushed on while rolling it on to the rod. One strip 50mm wide is used, rolled along its length,

as one would roll a cigarette. A second layer is spirally wound on top of the first layer, and given a coat of sanding sealer prior to painting. The structural frame is made from 22swg piano wire, soldered together as shown on the plan. It will be necessary to make a cardboard jig to hold the frame while soldering.

The cockpit fuselage is carved from a block of polystyrene which is then covered with small pieces of tissue soaked in diluted white glue. A layer of newspaper is applied in the same way, with another layer of tissue on top.

When dry, the whole is sanded and coated with sanding sealer. Finally the polystyrene can be picked out until only the paper shell remains. This results in a remarkably strong and flexible structure.

The wire frame is araldited to the main boom and the cockpit fuselage installed within the frame.

Pilots and seats are carved from polystyrene and painted with acrylic paints, as is the petrol tank, which encases the CO₂ tank on this miniature microlight.

The wire structure is covered with 1.5mm square balsa strip sanded round and then tissue covered with the exception of the two tail support wires which are covered with 1.5mm square spruce. Tissue wrap all booms and struts prior to painting.

Wings

The wings are made in the conventional way, with the full-span ailerons from sheet balsa being attached after the wing is covered. Jap tissue was used on the original but lightweight modelspan would probably give a less-wrinkled wing tip. The wing support struts are from 3mm by

1.5mm spruce strip, with the intermediate bracing from sanded-down cocktail sticks.

Tail feathers

As the major masses are well forward, an all-sheet tail was chosen to give balance as well as ease of manufacture. A coat of sanding sealer should be applied prior to rubbing down and tissue covering.

A length of balsa rod is fed into the rear end of the main boom and glued into position. A slot is then cut in the boom to allow the tailplane to be inserted and glued in position. The fin and rudder are then glued to the top of the boom.

Flying your Thruster!

The model should balance approximately on the main spar with a slightly nose-down attitude. A few test glides over long grass showed that insufficient wing incidence had been used on the prototype so the elevators were cracked along the join line and glued in a slightly 'up' position. The wing incidence has been increased on the plan, and this should be sufficient to achieve a good glide with the elevator incidence as shown.

Side and down thrust adjustments to the engine may be found to be necessary after the first few short powered flights before a full tank of gas is used.

Go microlighting!

Top of page: One-fifteenth-scale Thruster has a sprightly performance on Telco power. 'Shell' fuselage construction means it's even lighter than it looks; rolled-paper boom is perfectly adequate but make sure that wire bracing is accurately made! CO₂ pipe runs along boom, then vertically down to dummy petrol tank which houses CO₂ equivalent. Minor detailing to turn the Telco into a 'twin' is worth the effort.

FREE FLIGHT SCENE

A winning Wakefield and top events are described by Dave Hipperson

Ian Kaynes' F1B Easter Winner

Those that watched Ian's flying at that very windy Easter Meeting a few months ago couldn't help but be impressed. I was in a fortunate position because as I was running the contest I was able to observe his technique. It was very much a part of the winning process - just as important as the model which is reproduced here to show its simplicity, although not in quite as much detail as normal.

Ian admits to not having used the model in anything like as strong a wind before Easter, but he gave it a try because of the very smooth nature of the flow over Training Area 9. In fact he reckons it was the least turbulent air, given such a strong wind, since the days of Strubby. You will recall that I made a mention of this lack of turbulence in the report last month.

Despite never having flown at this venue before Ian was quickly into a routine. On the first two rounds he used his faithful bubble generator as the sole guide, with no thermistor read-out as the battery was flat! During those rounds Ian noticed

that the machine's own locally-produced turbulence was such that bubbles would only appear in the calmer spells anyway! A useful guide in itself. When he did actually get to see bubbles his best indications came from steady periods during which tidy groups were positively rising. He explained: 'In the relatively smooth air on Salisbury Plain organised groups of bubbles were usually detectable quite near the machine's head - rising directly on exit. It was then possible to deduce whether they were still likely to be rising with behaviour of later flows which then proved the target for launching the model so that it would make its first half-turn around the chosen patch of bubbles'!

Needless to say it was not all plain sailing. On such a day one would expect damage. In Round Three battery problems were beginning to interrupt the flow so Ian had to feel the lulls directly on that flight. His first-choice model had a wing tip broken off so he was down to a tougher model; and with lengthy retrievals each flight encroached into the next round more and more as the day wore on. On the fourth flight the bubble machine was actually torn from the ground and broken so Ian

was then completely on his own. However, he had learned enough by then to be able to feel the symptoms and could thus pick two more positive thermals to make it five out of five.

I would now agree that the bubble machine - in the right conditions - is far from dead as a thermal detection aid. Like my twin anemometer system I believe with practice it gives a 'deeper' picture of what is going on than any number of singly located themistors. Remember - it's rising air we are looking for. Hot air may well be dropping if the air around it is even hotter.

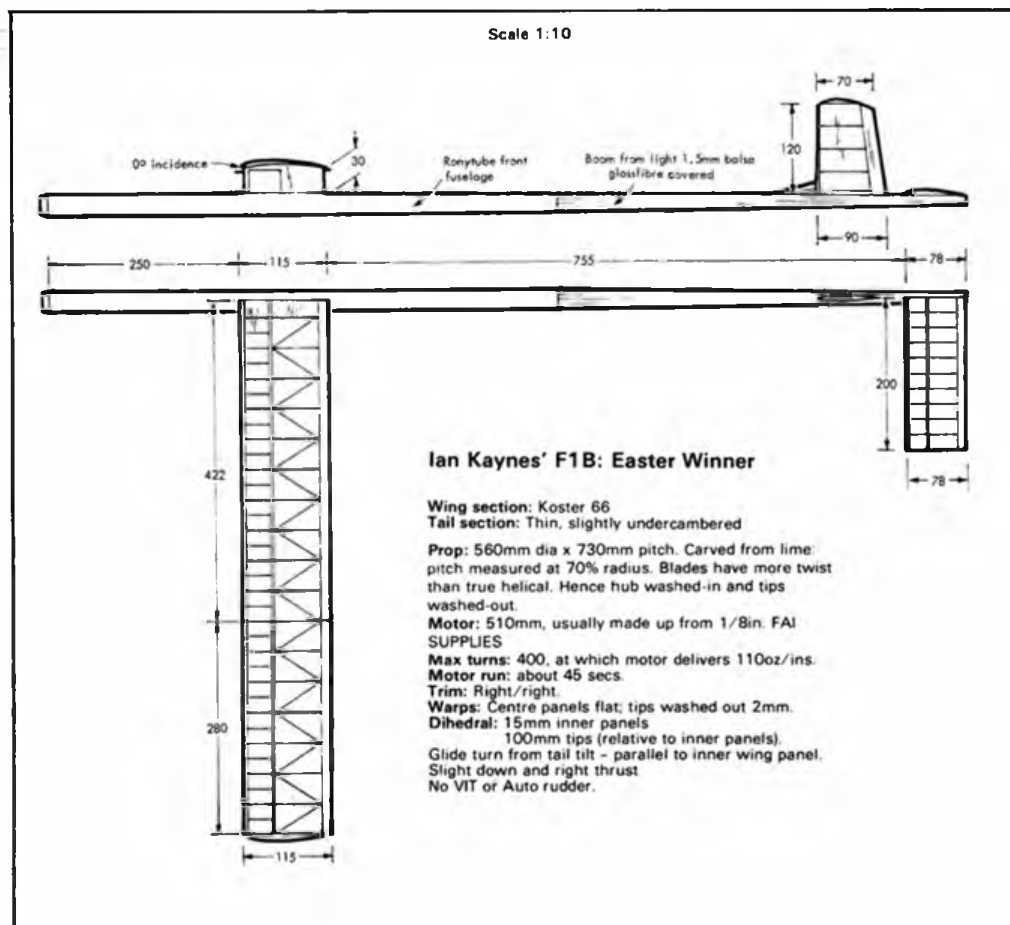
SMAE Spring Mini Meeting: Chetwynd, 26th April

Free flight made its return in style to this pleasant grassy aerodrome. Balmey English summer weather - right out of season for April - attracted many far-travelled enthusiasts as well as re-awakening the spirit in some local flyers who had ceased competitive aeromodelling when this, their home site, was last available more than ten years previously. Wind was light; so light in fact that the organisation had difficulty in deciding a suitable control point. Terry Dilks even complained later that he had suffered a stiff neck after spending too much of the day looking up vertically at his models! As the thermals came through models would rain down - or perhaps that should be 'rain up' - in all directions. Eventually a compromise was found in the centre of the field but not before some residents of the surrounding area had voiced complaints after finding one visitor too many on their land.

A rare and welcome sight was the visit of notable Council dignitaries and some higher ranks of the air station, including the CO. It appeared they liked what they saw and we may well be invited back.

Although calm, with a wind never above 10mph and often zero in the lift, consecutive maxes were more difficult than spectacular ones. A D/T failure meant almost certainly a lost model, but not to be in lift meant a sub-max flight. Chris Strachan proved this, competing hard in four events but never quite managing to max out in any of them. Last-flight disasters were many. John Cuthbert, so busy and consistent this year, actually D/T'd himself down early and out of a flyoff chance in A/1. Ian Davitt, our reporter, hit strong sink on his last to ruin a four max run in CDH with a disastrous 47-second flight. In the same class Anthony Ball managed the time with his new model but was unluckily clocked off over a hill, thus having still to fight for second place to avoid a Chilton clean sweep. Reigning Champion Phil Ball came back to athletic form after a very slow start this year, flying four events. He placed in them all and amassed no less than 25 Senior Championship points in the process.

When the flyoffs came the longest flight was from the oldest design. Russell Peers' vintage Lanzo was away quickly to clock



Aeromodeller

nearly eight minutes. The Birmingham pair of Watson (improving with every contest) and Screen made fine flights from high climbs in 1/2A and Phil Ball - pipped by a mere second into 2nd place in the CO₂ flyoff against his old adversary Philpott - took first in Slow Open with an identical time!

It was all enthusiastically directed by Martin Gregorie on a day when he must have been itching to fly.

SMAE Spring Mini Meeting: Chetwynd, 26th April

A/1 Glider (24 flew)

1	J.O'Donnell	10:00 + 2:29
2	S.Philpott	10:00 + 2:24
3	R.Woodruff	10:00 + 2:18
4	M.Walker	10:00 + 2:07

Coupe d'Hiver (21 flew)

1	M.Chilton	10:00
2	A.Ball	9:56 + 2:16
3	R.Chilton	9:56 + 1:26
4	R.Kine	9:48

1/2A Power (16 flew)

1	P.Watson	10:00 + 4:39
2	S.Screen	10:00 + 3:36
3	R.Peers	10:00 + 3:19
4	P.Harris	10:00 + 2:31

HLG (6 flew)

1	J.Walker	8:41
2	P.Ball	8:11
3	E.Burge	6:19

CO2 (6 flew)

1	S.Philpott	10:00 + 4:04
2	P.Ball	10:00 + 4:03
3	A.Tennant	10:00 + 3:15
4	J.O'Donnell	10:00 + 2:52

Vintage (9 flew)

1	R.Peers	9:00 + 7:56
2	T.Dilks	9:00 + 3:55
3	P.Ball	9:00 + 3:06
4	D.Davitt	9:00 + 2:09

Slow Open Power (13 flew)

1	P.Ball	9:00 + 4:03
2	E.Ashcroft	9:00 + 3:43
3	R.Kine	9:00 + 3:15
4	I.Davitt	9:00 + 2:07
5	J.Woodside	9:00 + 1:54

3rd Area Centralised Event: 10th May

A moderate and cold north-westerly wind dominated all venues for much of this 3rd Area Centralised meeting. At Barkston and Driffild, where the winning was done, it backed around to westerly by mid-afternoon and assisted late flyers with some calm sunny spells - almost warm! Merryfield and Beaulieu didn't get this calmer weather until too late and in the far north the wind actually increased, blowing them away at Albemarle. Ashdown Forest fliers were very unlucky to experience apparent sabotage in the form of numerous allegedly deliberately-started bush fires. No sooner had contestants joined in helping to extinguish



Memories of Woodbury. Top: Amidst F/F paraphernalia, Andrew Chilton prepares his very potent 1/2A model for flight in Open Power. Spectacularly vertical climb even in the high winds. Places second. Above and right: In his first contest and his first flyoff, Matthew Chapman best John O'Donnell in Open Rubber to place second. He is being assisted by Gerry Pink.

those patches of conflagration that were threatening houses then they turned to see the Common not only on fire behind them but advancing on the cars and models they had left upwind! Luckily the fire brigade arrived in time to save their vehicles and flying did resume later in the day, but on a somewhat reduced scale.

While this drama was unfolding those flying at Barkston had fewer problems although patience was certainly tested with an ever-backing wind and repeated moves of control. There seemed a distinct lack of enthusiasm for flying from outside the missile compound front gate which was the obvious compromise choice all day. Hence a great deal of walking was necessary to those who demanded the right place to fly rather than simply the most convenient. As it turned out this delay actually benefitted some, ensuring they were kept busy *not* flying during most of the morning when the lift was at its most treacherous. Nevertheless, Peers made his very first sub-max power flight of the season after being disturbed by all the moving. His club mates quickly talked him out of despair and into F1B where he demonstrated his determined hold on the class once again by completing a very positive full score by mid-afternoon, with Dilks only a few seconds adrift.

Despite this class counting for both the Weston Cup and Plugge points there were just as many flying nationally in glider. At Driffeld John Godden found his old APS Accipiter still on trim after five years in the model box and managed three maxes. By flyoff time the wind had dropped too much and he sensibly opted for a Night Owl (a free *Aeromodeller* plan from a few years back, designed by Jim Moseley). With timer pinned-off and tactically flying

behind the F1As of Mike Cook and Gerry Le Vey his thermal flight lasted rather longer than the other two eventually disappearing after a little over fifteen minutes still way up. Likewise Colin Hickmott used his small Open Rubber design and the same thermal, recording nearly thirteen minutes before disappearing without D/T.

The scene at Barkston was similar but more gentle. The breeze which had been growing lighter - catching D/T'ing maxes had been possible from about 3pm - dropped to 2 or 3mph SE just as the gaggle of glider participants released their flyoff flights a little after 6pm. With Cuthbert flying first and holding height others followed and it was obvious immediately that virtually all of them were in some sort of lift. The two models that appeared to be making the best use of it were Brian Parkinson's A/2 and Anthony Ball's lightweight Caprice. Both very slowly drifted west, Anthony's making height faster than the A/2 which eventually sank again to land (at over 12 minutes) no further than 500 yards from the launch point. Anthony's glider had suffered a mid-air collision on the first attempt and was being re-flown with the same eight inches or so of D/T fuse hanging out the side! It therefore D/T'd a little earlier than he had planned; but of course fuse of that length is always difficult to judge. Twelve minutes seemed sensible in the breeze just before launch but the model could probably have been seen for another ten. It landed three minutes later a little outside the drome as it had got high enough to encounter more drift. The narrow margin of his defeat - four seconds - will undoubtedly stay with him as a memory for a long time. Next time there won't be a fuse, will there.

Ant?

The remaining flyoff at Bartston was for a number of power flights and two qualifiers in F1B. Peers had been joined later in the day by Hipperson. The latter was by now down to flying his best model after an incident with an earlier design when piling on extra turns waiting for the fourth flight. The motor blew apart and so did the ageing balsa fuselage!

Those away early in this period - Screen and Baggott actually over-ran and had no reserve models ready - were still in the dead air following the glider bump and it was surprising that only Hopper and Hipperson realised this and had the patience to wait. They both flew right at the end of the quarter of an hour and in another buoyant patch Hopper's power flight was held aloft for nearly 14 minutes after a faultless climb; Hipperson's F1B stayed at a little less than climb height for several minutes resulting in a time that seemed to be easily enough. As it proved, it was - but only just, as Wharrie flying in that thermal at Driffeld was well away and high when he D/T'd down at six minutes (the limit of the timer) and so out of a Weston Cup win. He too will doubtless think again before he sets a D/T in a flyoff.

Bristol and West flying at a breezy Merryfield had nine members chasing Plugge points in F1B and most of them managed very reasonable scores too. Indeed, four of them took the bottom four

Left: Away neatly in Open Power - Tony Hall, knee-deep in gorse, with near standard Dixieander. Right: Pipe at the ready, Tony relaxes from efforts chasing over Woodbury. Note recommended footwear.





Ted Hopgood produced this magnificent Clivy Boy and was tempted into some trimming flights after the wind dropped. Craft was typical of some very fine Vintage models seen at the Woodbury Weekend.

places in the top eight with an extraordinary double-tie situation - two at 12.01 and the other two at 11.59. These efforts take them further into the lead at the Plugge.

Woodbury Weekend: 2nd-4th May

It is a delight to report an event as successful and popular as this. The stage has actually been reached when contestants seem to expect it to be windy and they just don't care! This year was no exception although the foul forecast was rather pessimistic. What actually came was a bright, mostly sunny weekend with a fresh north-to-northwesterly and a very occasional - and often well-timed - shower.

The Champagne Flyoff ritual was carried out in the finest Woodbury tradition. Scores of potential contestants quickly became eager retrievers and a gallery of observers as the real hardy types took their chances in the turbulence. Standout flight of the evening was once again Phil Ball's beautiful Challenger which sailed away smoothly to clear all the downwind obstacles by the sheer distance it travelled - over two miles. Not bad for a gale. Similarly, Chris Strachan's rubber flight exceeded three minutes and landed in exactly the same field as had his first ever Lanzo two years before. That model had been totally devoured by cows; this year, luckily, the field was empty and he got his model back.

The Open events on the Sunday were run to a 2:30 max which still meant that contacting lift was a risky business with the infamous Uphams plantation stretching across the downwind line some mile away. The gorse-covered slopes are no place for controlled towing of gliders; it followed that there were few flying in this class and the standard was rather patchy.

Peter Williams topped the list with two maxes followed by a substantially dropped flight, which would normally have put his score way out of contention.

Russell Peers' perfect total in Open Power was challenged only by Andrew Chilton flying a very fast 1/2A model which went up vertically on at least one occasion despite the 25mph wind. The most popular class of the day by far was Vintage - understandable with so many SAM 35 flyers swelling the numbers. Terry Dilks lost a model on the second flight and it was quite late before he was ready for his last. Around that time we experienced a Woodbury miracle. A short, very heavy burst of hail and rain left the air cold and calm. Terry got away for an easy last max and victory.

The only flyoff was in Open Rubber; the calm spell held for this too. John O'Donnell was up against local men in the form of Chris Chapman and his son Matthew, the latter flying in his very first contest! John launched early in what felt good air, the model climbing well. Not long into the glide a stall began to build up and although not very serious it must have robbed a couple of minutes from the glide. It also plopped the model down in the

3rd SMAE Area Centralised Event: 10th May

Open Glider: no trophy (53 flew; 17 in fly off)

1	J. Godden	Driffield	7:30 + 15:11
2	A. Ball	Barkston	7:30 + 15:08
3	B. Parkinson	Barkston	7:30 + 12:37
4	B. Bow	Merryfield	7:30 + 10:20
5	J. Cuthbert	Barkston	7:30 + 7:09

F1B Wakefield for Weston Cup (53 flew; 3 in flyoff)

1	D. Hipperson	Barkston	12:30 + 7:36
2	A. Wharrie	Driffield	13:30 + 7:06
3	R. Peers	Barkston	12:30 + 2:54
4	T. Dilks	Barkston	12:26
5	D. Greaves	Merryfield	12:01
6	A. Moorehouse	Merryfield	12:01

Open Power for White Cup (24 flew; 8 in flyoff)

1	J. Hooper	Barkston	7:30 + 13:40
2	C. Hickmott	Driffield	7:30 + 6:17
3	P. Watson	Barkston	7:30 + 4:20
4	R. Staines	Barkston	

Plugge Points after three events

Bristol & West	736
Anglia	587
Crookham	517
Vikings	511
Birmingham	492



Dave Greaves produced these magnificent trophies for FAI Day. An A-frame pusher sandblasted from marble - not bad eh?

impenetrable plantation whence it was never recovered. This left the way open for Matthew Chapman (still winding) and his Dad who was nowhere to be seen. Matthew was almost ready to launch when Chris arrived after a fruitless search for an earlier model. He too began preparing for his flight. Matthew was quickly away, his model a little twitchy but holding the edge of some buoyant air long enough to beat John's time. However, it was his Dad that took the honours with a late flight that climbed to no great height but worked its way into lift and carried on up and over all the retrieval traps downwind to land by a car park! Some people have all the luck!

As usual the first two days had been well executed by the organisation but the treat was in store that night. It must be said here that the Castle Brake accommodation arrangements help make this event what it is. One gets the impression that like Bristol and West's flying organisation the management of this establishment take some pride in trying to do a better job of looking after us each year. What started as a snack barbeque a few years ago is now a major meal with virtually no limit to the quantity available. What is more the timing of everything is fitted in with the activities on the Common rather than the other way around. It would not be proper to go a moment further with this report before congratulating proprietors Mr and Mrs Woodman and their staff on a very high standard. To have the facilities for an eating, drinking and chatting social gathering in such comfort virtually on the field has to be every aeromodeller's dream - particularly those with families. On top of that, a Bristol and West prizegiving with Gerry Pink showmanship in particular is simply asking for the whole event to take off. This was a masterpiece. Anyone not

there missed a treat; this was the sort of prize-giving you enjoy even if you, like me, hadn't won anything.

Those with a clear head in the morning managed to get themselves together at 8am on Monday for five rounds of combined FAI. The host club, having heard some comments about the idea of a combined FAI event last year, had arranged for further trophy awards to the top flier from each discipline as well as the top three overall. Entries were high, spurred on by a comparatively calm morning. However, the breeze returned but never with such severity as during the previous days. The three-minute max was quickly putting models in jeopardy - those woods again - until the promised northerly swing arrived and models took a different, clearer line for the last couple of rounds.

Chapman, the winner from the night before, dropped his first flight in F1B as did most others apart from Horsley. Even the trusty O'Donnell featherer stalled down viciously from a great height. We were launching on the downwind side of a gentle hill which dropped away more steeply. It would appear that airflow separation was occurring - a bit like turbulence over the back of a wing section. High models - F1C ships - were away clear but Rubber and Glider had a difficult time unless in strong lift at launch. Then, of course, retrieval became difficult. As expected the numbers competing dwindled rapidly to leave just a handful battling a close finish. Out of his five flights John Cuthbert had managed three maxes in F1A - quite an achievement with line tangling gorse and heather everywhere. Chapman had recovered from his first flight drop to rally with three consecutive maxes only to drop again a little on the last allowing Fred Chilton to take the event with a power model - the only one still flying after long first-round flights had deterred Rowledge and Collins.

Vintage Precision, a class with the most complex rules of any free flight event I know attracted simply hordes of classic shapes from the past. Although a poor glide is a distinct advantage in this class Phil Ball - fresh out of modern Wakefields - managed to take second place with his trusty Ying, a 4oz model. It was certainly a strange sight to see Phil willing his flights down. However, top honour was taken by Dave Dunn flying a Simplex. If it was this model which I saw him carrying it was a beautiful example too.

The day's proceedings were rounded off in the late afternoon with the prize-giving of goods and Dave Greaves' marble trophies on the Common. The top three placers in FAI had two trophies each to collect, for indeed it was a power model, rubber model and a glider that had come to the top of the stack after all. No clean sweep for F1C (as everyone always predicts).

All the individuals from Bristol and West involved in the planning and organisation of this event deserve our thanks; and it didn't end with just the flying and accommodation. Alan Parker, who made the whole idea come together in



Woodbury Weekend: 2-4th May

Saturday Champagne Flyoffs

Open Glider	
1 J. Cuthbert	1:45
Open Rubber	
1 C. Strachan	3:09
Open Power	
1 R. Peers	1:39
Vintage	
1 P. Ball	6:27
2 R. Alban	3:36

Sunday: Open Events (2:30 max)

Open glider (7 flew)	
1 C. P. Williams	5:46
2 C. Sharmen	4:43
3 J. Cuthbert	4:25
Open Rubber (19 flew)	
1 R. Chapman	7:30 + 6:20
2 M. Chapman	7:30 + 4:48
3 J. O'Donnell	7:30 + 4:38
Open Power (7 flew)	
1 R. Peers	7:30
2 A. Chilton	7:27
3 A. Hall	6:29
Vintage (15 flew)	
1 T. Dilks	7:30
2 C. Strachan	6:45
3 P. Michel	6:10

Monday: FAI Event (Combined classes: 3:00 max) Combined FAI (22 flew)

1 F. Chilton	14:11 (F1C)
2 C. Chapman	14:00 (F1B)
3 J. Cuthbert	13:55 (F1A)
4 T. Dilks	13:43 (F1B)
5 C. P. Williams	12:53 (F1A)
Vintage Precision (14 flew)	
1 D. Dunn	1.4% (Simplex)
2 P. Ball	1:99% (Ying)
3 K. Horry	2.08%

Senior Championship positions up to 3rd Area event.

R. Peers	57 points
P. Watson	40 points
P. Ball	32 points
T. Dilks	25 points
J. O'Donnell	23 points



the first place years ago, distinguished himself this year by some heroic retrieving. It was if he somehow held himself responsible for the very nasty woods downwind, for he spent hours searching for other people's models and located and retrieved more than half a dozen during the course of the weekend. To give some idea of the regard in which the regulars hold this event a number of people - and I shall not give their names - confided that if it were a choice between missing the Woodbury Weekend and the Nats - they would miss the Nats! Enough said!

Senior Championship positions so far...

These positions are up to but not including the Nationals. Russell Peers has shown such tremendous form in the early part of this season that he looks favourite for the title. Knowing how many classes he flies in, and how determined he becomes even if he goes off-form with a flat patch mid-season (which sometimes happens when you start as well as he has) he will be hard

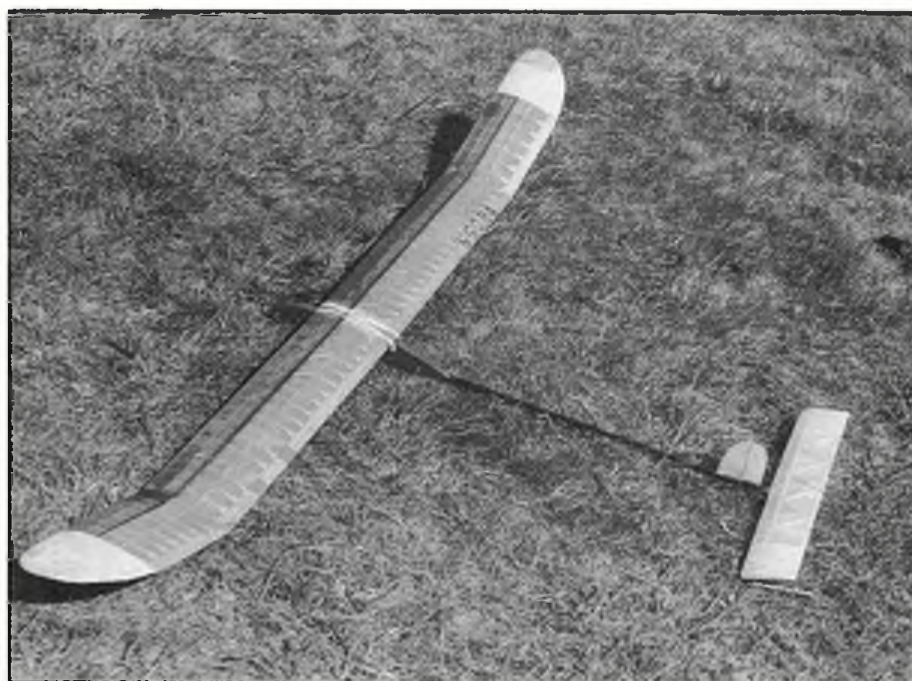
Above: Old enough to be Vintage? This nearly 20-year old F1B was seen at Barkston for Weston Cup day. Bob Bailey was tempted out by his Vikings clubmates to score some Plugge points after many years layoff in this class. No luck this time but Bob won the Halifax at the last meeting when they 'tempted him out to fly FAI Power' so anything was possible!

Top right: This very stretched F1B of Darl Morley was seen at Barkston. Immediate right: Bill Colledge's glider which we featured in June. It has been 'stolen' after its last flight at the 1986 Brumfly; many months later Bill received a phone call saying it had been 'found again'. It was discovered in a barn and to judge by its perfect condition had never spent a night in the open. Strange how models so often find their way into barns...

to catch. His early events were wins in Open Power at Bottesford, then again the Frog Senior at the 1st area event, then again the Gamage Cup at the 2nd area event; then again in Open Power at Easter! An incredible achievement. He won Vintage at Chetwynd and made 3rd in F1B at Weston and Easter events. Third in 1/2A at Chetwynd meant a total of an incredible 57 points in only six events; always placing, always going for it, even after the

disappointment of his dropped flight in the White Cup.

Pete Watson is his biggest threat with his form ever-improving. He too has had few disappointing outings this year. However, reigning Champ Phil Ball took until the Spring Mini at Chetwynd to slip into top gear when in the calm he worked himself into 25 points in one day to jump into third. A more complete list will appear after the Nationals results are known.



More National Results – from p.433

F1A: Ronytube Trophy (65 entered)

									Total
1	S. R. Philpott	90	180	210	210	210	180	180+240+300+144	1944
2	P. Owens	90	180	210	210	210	180	180+240+300+105	1905
3	C. James	90	180	210	210	210	180	180+240+186	1686
4	M. Cook	90	180	210	210	210	180	180+218	1478
5	R. Staines	90	180	210	210	210	180	180+196	1456
6	P. Stewart	90	180	210	210	210	180	180+144	1404
7	G. F. LeVey	90	180	210	210	210	180	180+122	1382
8	A. C. Gibbs	85	180	210	210	210	180		1254
9	B. Nicholson	90	156	210	210	210	180		1236
10	A. S. Cordes	89	180	181	210	210	180		1230
11	C. Edge	90	180	183	205	210	180		1228
12	J. Cuthbert	90	180	210	210	177	180		1227
13	M. Page	70	149	210	210	210	180		1209
14	C. Williams	90	180	210	210	210	126		1206
15	C. Sharman	90	125	210	210	210	180		1205

F1B: Boxall Memorial Trophy (51 entered)

									Total
1	R. C. Pollard	120	180	210	210	210	180	180+240+300+319	2149
2	F. Sharp	120	180	210	210	210	180	180+240+300+161	1991
3	I. Taylor	120	180	210	210	210	180	180+240+132	1662
4	D. Neil	120	180	210	210	210	180	180+173	1463
5	S. Marriott	120	178	210	210	210	180		1288
6	B. R. Peers	120	165	210	210	210	180		1275
7	L. Auckland	120	165	210	210	210	180		1275
8	D. Greaves	120	180	210	190	210	180		1270
9	I. Davitt	120	151	210	210	210	180		1261
10	D. Hipperson	120	151	210	210	210	180		1261
11	J. B. Spooner	120	139	210	210	210	180		1249
12	B. Martin	120	95	210	210	178	180		1173
13	M. Howick	120	180	120	210	210	180		1171
14	N. Lee	61	112	210	210	210	180		1163
15	G. Foster	120	180	210	210	136	180		1163

F1C: Eddie Cosh Memorial Trophy (20 entered)

									Total
1	S. Screen	180	180	210	210	210	180	180	1350
2	R. Baggott	180	170	210	210	210	180	177	1344
3	P. Watson	180	180	210	210	193	180	180	1333
4	A. G. Jack	180	167	210	210	210	180	144	1301
5	F. G. Chilton	180	114	210	210	210	180	178	1282
6	R. King	180	158	210	184	179	180	180	1269
7	P. Bond	175	163	210	210	167	138	168	1231
8	R. Johnson	38	180	210	210	210	180	143	1151
9	M. Hargreaves	150	141	210	105	210	159	116	1081
10	L. R. Moore	175	95	192	185	103	180	144	1074
11	T. Hargreaves	144	159	210	0	177	81	0	771
12	P. Rowledge	88	0	210	0	0	0	0	298
13	P. Harris	180	0	0	0	0	0	0	180
14	R. Collins	0	122	0	0	0	0	0	122

Overall Glider Champion

1	A. Cordes	252
2	R. Staines	245
3	J. Cuthbert	234

Overall Power Champion

1	S. Screen	266
2	P. Watson	259
3	R. Baggott	219

Overall Rubber Champion

1	M. Howick	251
2	I. Davitt	239
3	G. Sharp	238

Junior Champion: Heather Cup

1	A. Ball	10pts
2	N. Auckland	5pts
3	P. Chamberlain	3pts

Congratulations to all participants whether you won or not – and see you next year!

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'POWER MOUSE'

Just in time for our Vintage Weekend – build Bob Jones' CO₂ miniature of a Stateside classic

I BUILD quarter-scalers; no, not those mower-engined monsters scaled from full-sized aircraft, but quarter-size replicas of model aircraft.

My interest in miniature models came about during the Second World War when, having no access to full size plans, I tried building direct from the 'one-third' reproductions in *Aeromodeller*. These were mostly unsuccessful, and with the advent of a Beau-Glider kit via the ATC, miniatures were forgotten.

Some thirty years later I saw Doug McHard with an early Brown CO₂ motor and my interest was renewed. First attempts were Indoor Scale models using Brown and Telco motors.

With the advent of SAM 35, thoughts turned to the old time 'gassies' I had always longed to build. Looking through an American magazine I came across a quarter-size reproduction of the Privateer used to advertise the full-size plan. When my CO₂ motor was held over the Brown Junior 10cc engine thus shown, it was found to be almost exactly the same size. A rush for a pair of No 1 Trexler airwheels and yes; spot on!

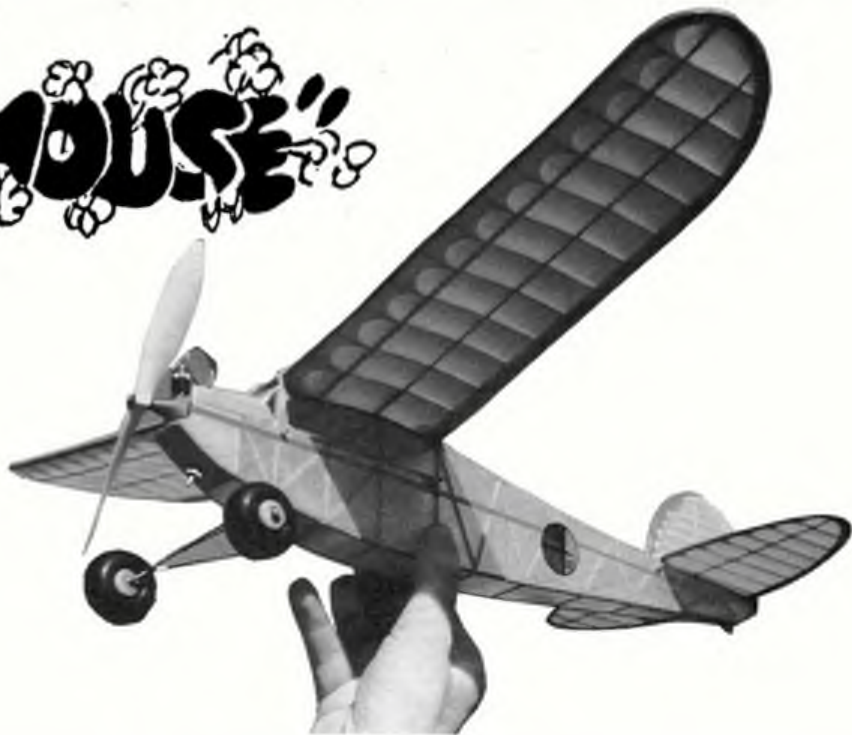
I then determined to make the model as near an exact quarter-scale replica as possible, using all the full-size construction and quarter-sized wood. Longerons came out nicely at 1/16in.sq. from 1/4in.sq., and the original 1/8in. wing ribs could be cut from 1/32in. sheet. The wing spars, now 1/16 x 1/32in. instead of 1/4 x 1/8in. required care but took the flights loads OK. The only real deviation was a 1/16in. motor mounting plate instead of engine bearers. The resulting model was one of the most consistent performers I have built, and it inspired a number of other modellers to think along similar lines.

Encouraged by this success I searched through all my old mags (no mean task) for other suitable drawings, but in most cases found the fuselage drawn on one page, and the wings to a different scale on another.

I had been very lucky to find that first one! The only answer was to produce my own drawings and the Powermouse is the result.

Go for the wood!

Balsa selection is important. You will need medium-hard 1/16 x 1/16in. balsa for the fuselage and wing spars. Wing leading edge should be medium grade. Look for firm and light quarter-grain sheet — 1/32in. for wing ribs, 1/16in. for tips, trailing edges and so on. If you cannot find the right grades in your local model shop, contact a specialist balsa wood supplier.



The fuselage is straightforward. Incorporate the 1/16in sheet cowl pieces when you build the sides, remembering to mark the insides for motor plate alignment. Fit your CO₂ motor before adding the upper and lower cowl blocks; when fitting the latter cut a small slot at the back to allow the filler tube to pass through. Mount the filler firmly on the outside of the block. Support the tank with scrap balsa. Wing and tail dowels should be check fitted but not fixed in place until the fuselage covering is complete.

Take care to cut accurate wing ribs. I use a thin ply template held on the wood with two pins and carefully cut around with a sharp balsa knife. Note that the trailing edge must be shaped before being fitted. The wing tips should be level with the top of the trailing edge and central at the leading edge. Remember to pack up the rear wing spar 1/16in to allow for the undercambler.

The tail surfaces take time but the result is a simple, rigid structure as per the full-sized model. Use light wood and sand carefully to aerofoil shape. The original undercarriage was made from 1/8in. diameter wire so you will need some of 1/32in. diameter for your quarter-size miniature. Bend the front and rear legs to the shapes on the plan and solder the front cross-bar in place. Bind both legs to the fuselage cross-members with cotton at the points shown. Bring the legs together, bind at the bottom with fine wire and solder. When you are satisfied that the model sits correctly run a small drop of cyanoacrylate along the cotton bindings.

All the dope

Before covering sand the whole structure to ensure a smooth, bump-free surface. This is best achieved by using a sanding bar. Cut a piece of 1/4in. ply or hard balsa to approx 12 x 2in. Fix fine sandpaper on both sides with double-sided carpet tape. The bar will help to avoid digging-in when sanding and the sandpaper seems to last longer! If you have covered models with tissue before you will no doubt have found a method that suits you — if so, OK, stick to it. However, if you are having trouble try the following scheme. Give all parts of the model (where

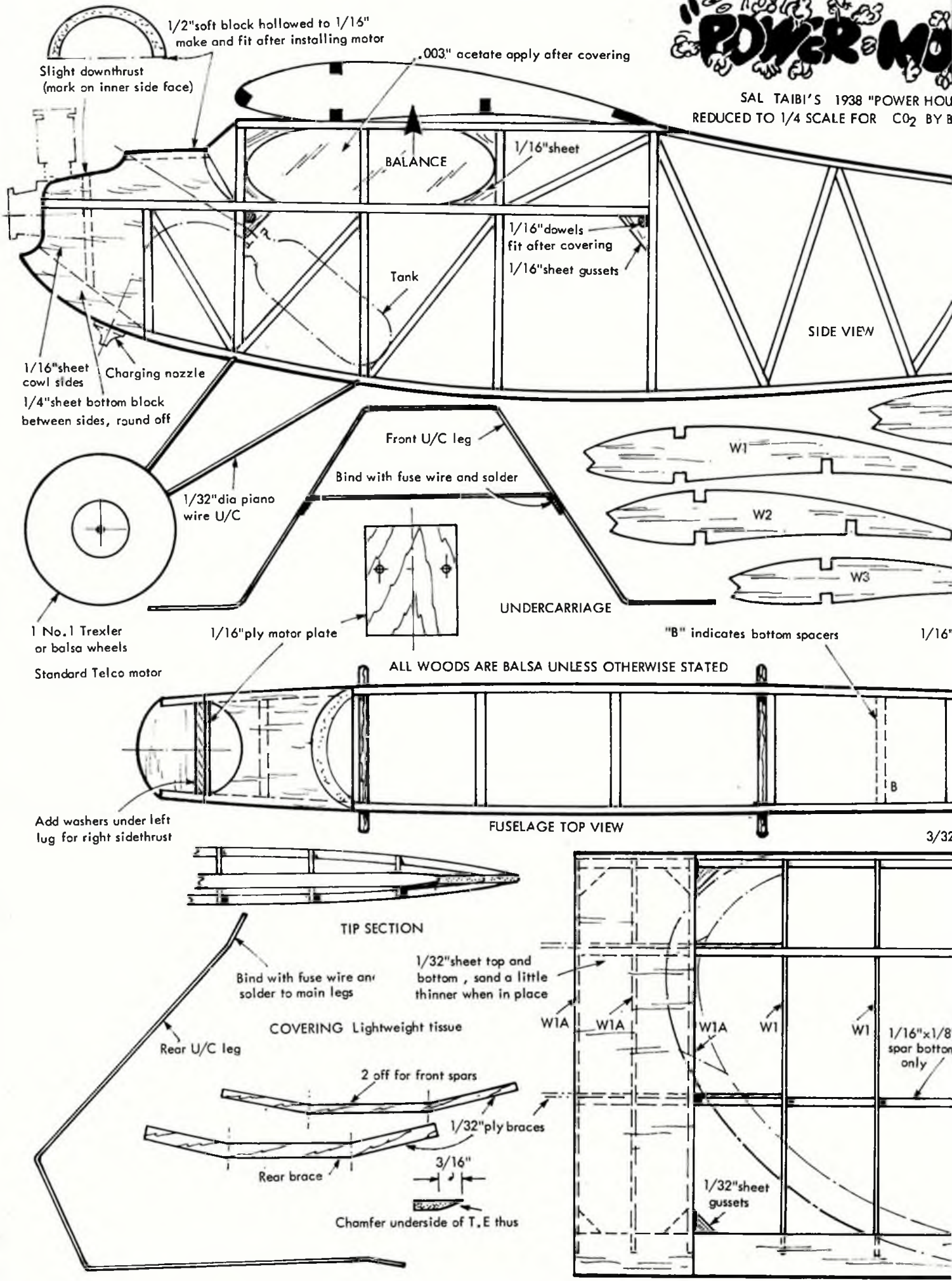
Full-size plans overleaf for this twenty-one inch charmer, a quarter-scale version of Sal Telbi's famous Powerhouse. Bob's yellow and red prototype is fitted with a Brown motor but a Telco will do fine!

tissue is to be attached) two coats of thinned sanding sealer. Sand each coat when dry using the sanding bar. Remember that the tissue must be stuck to the underside of the wing ribs. Now attach the tissue with a mixture of 75% thinners and 25% clear dope. Apply with a small brush and rub the edges down well. When covering the wings start with the underside, working first spanwise and applying the mix to about three rib bays at a time. If you have trouble getting the tissue to stick to the bottom of the ribs add a little cement to your dope mix — use an old tin lid as a 'palette'. Try to achieve an even covering rather than a super-tight one. When the dope is dry check that all the tissue has stuck down. Any loose edges can be re-stuck using dope brushed on top and rubbed through. To shrink the tissue apply a light mist of water using a spray. Then give it two thin coats of thinned clear dope. Check for warps. Plan your colour scheme using coloured tissue, keeping colour dope to a minimum. Add any transfers and your name and address label. A neat way to apply an address is to type it on a piece of tissue and stick it down on the finished model with thin dope. Do not brush over the typing or it will smudge.

Go to the field!

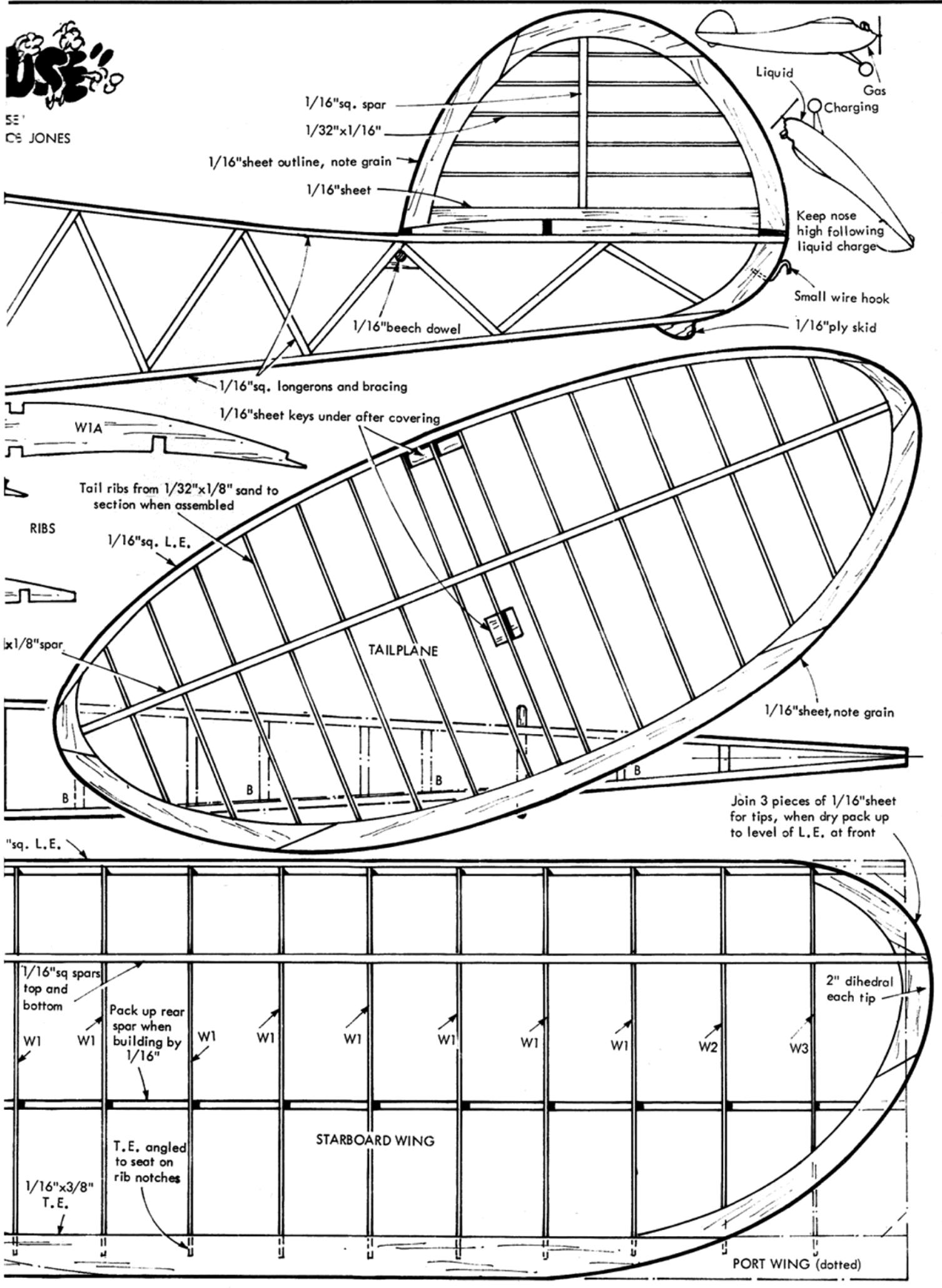
The finished model should weight about 1.1/2ozs. Check that the model balances near the centre of gravity position shown on the plan, then try a hand glide. The prototype needed a 1/32in. shim under the front wing spar for a smooth descent. Do not expect a long, floating glide; this model has large wheels and a 'fixed' propeller. When you are satisfied with your hand glides, try a medium RPM setting and gas charge on your motor, checking to avoid a too-sharp turn under power. Mine seemed to prefer a 'right' pattern. Take care — the original flew right off the large site at Cocklebarrow Farm on its second flight! It has also flown successfully indoors.

See you at Old Warden?





SE
CS JONES



FROM THE HANDLE

Stunt affairs from Claus
Maikis and Bill Draper

Time is important

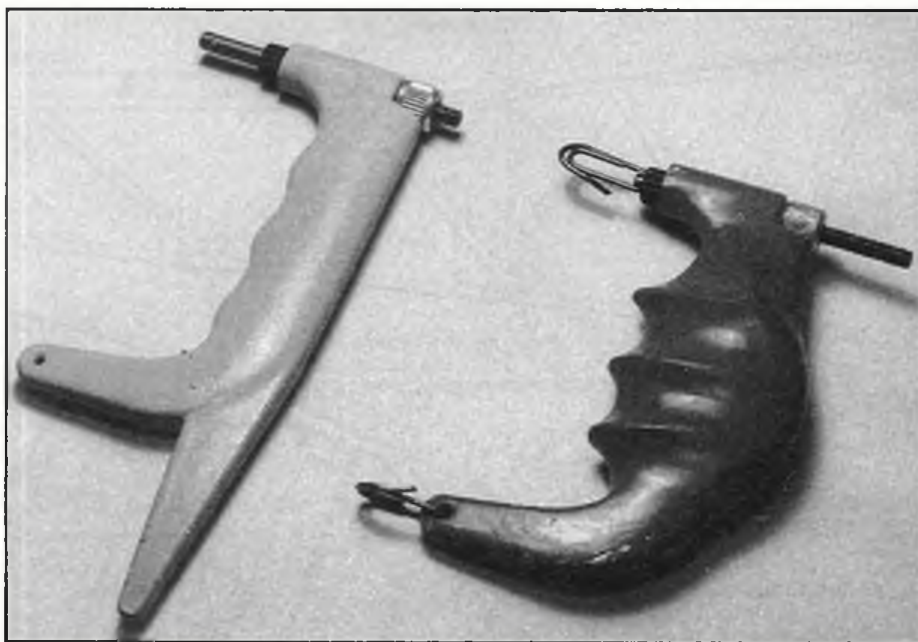
From the large supply of engines on the market we stunt flyers select only a few - those proven to have the desired running characteristics. A very few of them can be used right out of the box. Some of them need some special care with regard to prop size, plug or fuel. A large number will need some minor modification like additional head gaskets or specially-made venturi. Of course there are flyers who have turned a certain make into an exceptional motor, but this is not usually possible without extensive internal modifications.

With new engines entering the market almost every day it's a big temptation to buy one of these powerful examples. The big question is: will it satisfy our needs? Usually only long-term experience can give the answer. However, there are some ways by which to find out whether the engine in question is basically suitable, or not suitable at all. The American enthusiast Tom Dixon has found a method to test whether the engine is able to back off quickly from two-cycle to four-cycle running. Every stunt flyer knows that this a prime requirement. Tom simply puts the engine on the bench and - while running at a steady four cycle (the engine, that is!) - he just squeezes the fuel line for a short moment. After the engine has accelerated into a clear two-cycle the fuel line is released. Now Tom checks the time it takes the engine to recover to the steady four-cycle. The shorter the time the more suitable is the engine for our purpose.

To learn about the behaviour of some engines, I made a test with a few of mine, and borrowed some from my friends (see also Test Case in June's column). As expected I found nothing revolutionary. I gained some useful information which certainly helps me to judge an engine, and to give advice to beginners. The results of the test were as follows:

Engine	Recovery time	Comment
OS 40 FP	about 2.5 sec	normal reaction
OS 40 FSR(1)	about 4 sec	slow reaction
OS 40 FSR(2)	about 2 sec	very well-behaved
OS 40 (old type)	about 4 sec	quick reaction, but slow transition
Fox 40	about 2.5 sec	normal behaviour
ST 46	about 1 sec	best reaction
Marco 49	about 2.5 sec	good reaction
Como 51	about 3 sec	immediate reaction but slow transition
ST 60	less than 2 sec	very good reaction; smooth transition

Now I'm quite aware that the measured times are influenced by many variables, like prop size, type of prop, weather and so on. With different conditions there would have been other results, but the general picture wouldn't have changed much. Of course these checked times cannot be the only indication of a good stunt engine. But certainly they tell a lot...



Before and after - the Davies Charlton handle with modifications to suit the individual. All C/L fliers should consider such measures (see below).

Handle with care

As a control line aerobatic pilot you know what your handle means to you. You can imagine how a stunt flyer feels when he's lost his 'number one' handle. First he turns pale, then he speeds to the flying site, finally he scorchs to the hobby shop. no handle!

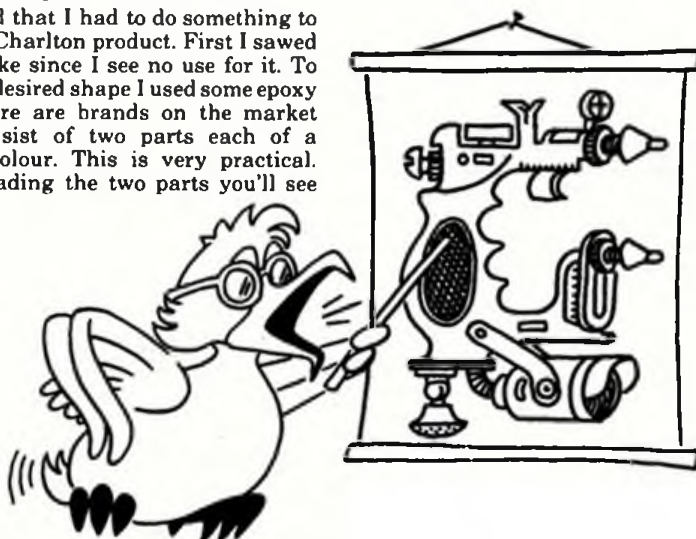
I know; it happened to me. Before I gave up hope I luckily found a Davies-Charlton handle in a dusty corner of my workshop. This handle is a very useful item for all control line flyers - but I'm used to my own handles which are made to fit my hand exactly. I don't like thin handles because if your hand is sweaty or oily you can hold the handle as tight as you can, and it will still move within your grasp, especially in corners with a handful of a model like a .60 airplane. I prefer handles which are wide but very flat. Given such a shape you first place your fingers around the handle, and you can hold it steady without any strain. When it's made especially for your hand it will never move.

I realized that I had to do something to the Davis Charlton product. First I sawed off the spike since I see no use for it. To create the desired shape I used some epoxy putty. There are brands on the market which consist of two parts each of a different colour. This is very practical. When kneading the two parts you'll see

how the colours mix. When you've got another uniform colour you know the two parts are mixed well. The surface of the handle should be thoroughly roughened. Before the putty is wrapped around you can work it with your hands well wetted. If you prefer to keep your tender hands clean, use one of those thin disposable plastic gloves! Put your fingers around the lump of putty and press gently until your hand is almost closed. You must feel very comfortable with the fit of the handle. Hold it for a few minutes - you may practise some 'dry' square eights in the meantime. The putty sets fast. Hang it up for a day or two. After it has hardened file off any unevenness.

Don't forget to paint the handle in a colour matching your favourite airplane. A heavy coat of fuel-proof and scratch-proof lacquer will finish the work. You'll be amazed how precisely you can control your airplane from now on. The handle is a little heavy, but it has a nice benefit: you'll not be able to pick it up wrong. It's just impossible!

CM



Stunt at the 1st. SMAE Centralised meeting: 3 Sisters, 5th April

F2B Aerobatics

A small but good-quality entry for the opening contest of the season indicated that there was much at stake now that the centralised events are being used as a replacement for Trials in International team selection. In addition to counting towards placings on the 1988 Team the event was also being used as an eliminator for the third 1987 Team place; Bill Draper and Tony Eifflaender had already qualified from their 1986 results but Nev Dickinson and Barry Robinson were contending for the vacant position.

After Bill Draper's warm-up flight for the judges John Kergon found himself performing the first official flight with his very attractive Sig Super Chipmunk powered by a Merco 35, a model still not fully trimmed for clean squares. Bill Draper opted for his four-year-old Superhawk (Enya 54) to set the top score for the round whilst Tony Eifflaender was trying out his new 44oz. Freebird with the new PAW .40 diesel on board for its first contest. He was in second spot for a time. Mike Taylor made a return to Open Aerobatics using an ST46 powered Imposter - a model based on the Superhawk and still being trimmed. A slow start plus an over-run cost valuable points although he flew with promise. Nev Dickinson used last year's slightly modified Northwind, powered now by an ST 60 to put in a very challenging and smooth flight and to move now up very close behind Bill, followed immediately by Barry Robinson's own Northwind, an old favourite, which flew sharp and fast thanks to its Merco 61 but nevertheless placed behind Dickinson.

Terry Taylor used the big all-sheet design that he flew last year, but he had only just bolted in an Enya 40 in place of his OS 50 and the model had not flown with the new engine. The result was a slow start and over-run due to Terry's unfamiliarity with the Enya but the motor run was OK and the flight looked good. Ken Reeves finished the round using another old favourite, his Enya 45 powered Superhawk. Despite not having flown a plane since last season his schedule was useful. The early drizzle had stopped by the close of Round 1, although it remained dull.

Mike Taylor opened the second round with a full schedule but landed only just within the time limit. Nev Dickinson slipped a few points with a mistake in the square eights but Barry Robinson piled on the pressure with an impressive flight in his bid for the Team place to overtake Dickinson in the round, although he was still one point down on aggregate. Terry Taylor improved his engine management but was still flight-rusty, whilst Ken Reeves had forgotten how to start his Enya 45 and thus lost both attempts and



The English team for this year's Home Internationals - and the top trio at the 3 Sisters event reported here - are Bill Draper (enlarged Superhawks + Enya 45), Tony Eifflaender (Freebird 4 + PAW 40) and Nev Dickinson (Northwind + ST60). Photo: Reg Lowe.

starting points. An over-run after a slow second-attempt start held down his score. John Kergon was unfortunate to have his motor die in the clover-leaf pattern; he was then forced into an inverted landing on the tarmac. Damage was restricted to cockpit scars, scraped wing tips and a knocked-off fin. Bill Draper's 60 oz Superhawk again carried top marks in the round, though by a mere two points, and Eifflaender's very sharp-turning schedule pulled him into closer contention.

The leading scores at the end of Round 2 were so close that everything depended on the final round. Barry opened proceedings with another clean, powerful schedule which was going to be hard to beat. Terry Taylor and Ken Reeves both got their acts together again and John Kergon completed his last schedule with no problems after fin repairs. Bill Draper failed to improve his score and was now twelve points behind Robinson on aggregate, and Eifflaender could not quite raise more points.

Another over-run came from Mick Taylor; but the last man to fly, Nev Dickinson put everything into a big effort to try to hold his position, falling nevertheless just short into third place.

This was a good tight contest with the final outcome open until the end. Barry Robinson was very closely followed by Bill Draper and Nev Dickinson. The team for the 1987 European Championship has now been decided as Bill, Tony, and Barry.

Novice Aerobatics

The father-and-son combination of John and Christopher Wing made up the full Novice entry. Chris made the opening flight with his PAW 2.49 powered Peacemaker, which is fitted with a monowheel undercarriage. He completed

the schedule but the motor died on the lap immediately after his last manoeuvre with very little room to spare. John Wing followed with another PAW 2.49 craft in a Peacemaker/Mini Slow Hybrid (Peace Slow or Midi Maker?) which had been finished only the previous evening. The dope was barely dry. There were no problems during its unaugural flight, and so John finished just ahead of Christopher by three points. Round 2 saw Chris pulling out a few more stops to raise his score by over 50 points, ending the flight with a truly delightful touch down and roll for such a small, monowheel plane. John could not raise his score, perhaps due to unfamiliarity with his new plane, and so resigned himself to second place. Perhaps he should have flown his ST46 powered Zlin. . .

BD

1st SMAE Centralised Event: 3 Sisters, 5th April F2B Aerobatics

Weather: Dull with light drizzle at first, gradually brightening towards the end of the day. Wind very light.

		Round 1	Round 2	Round 3	Total
1	BP Robinson	1971	2035	2055	4090
2	CW Draper	2025	2037	2041	4078
3	M Dickinson	2021	1986	2039	4060
4	AC Eifflaender	1936	2004	1993	3997
5	M Taylor	1583	1781	1713	3494
6	KN Reeves	1738	1684	1747	3485
7	TG Taylor	1484	1556	1702	3258
8	J Kergon	1428	1393	1550	2978

Judges: John Harley and Reg Lowe. Contest Director: Ken Reeves.

Novice Aerobatics

		Round 1	Round 2
1	C Wing	317	371
2	J Wing	320	320

Judge: Doris Dickinson.

VINTAGE CORNER

Alex Imrie discusses the little-known Dowsett Hawk-Special of 1929

WHEN C E BOWDEN'S Kanga biplane flew for seventy-one seconds in May 1932 the flight was officially observed by SMAE timekeepers and was accepted as a record for this class of model aeroplane, thus breaking the eighteen-year hold that David Stanger had created with his fine fifty-one-second flight in April 1914. However, readers should be left in no doubt that between these milestones interest in petrol-engined model aircraft was far from extinct, and throughout the length and breadth of the land enthusiasts were devoting themselves to the task. Many did not have recourse to engines of any sort and had to make their own. Some remarkable motors appeared from the mid-1920s onwards, mostly developed by the model power boat men, and many of these were suitable for model aero use. An account of Mr GG Harris' 15cc four-stroke engines that caused his two sons Frank and Gil to build model aeroplanes for them in the late 1920s has already appeared in these pages (Vintage Corner, May 1983) where mention was also made of the nine-foot span model powered by a lightened Bonn-Mayer engine made by three members of the RAE Model Aircraft club at Farnborough in 1924. The CLA 3 Minor of 11ft. 6in. span made by the aircraft apprentices at Cranwell in 1926 and powered by Edgar Westbury's 52cc Atom 1 engine fitted with a flywheel magneto was another example of endeavour in this field. A persistent experimenter was B Stalham of Kings Lynn whose 9ft. 6 in. span shoulder wing monoplane Peggy, powered by an 18cc two-stroke engine of his own construction was flying with great regularity, and there were others that provide intriguing subjects of research for model aviation historians.

Dowsett Hawk-Special — an introduction

How the Parliament Hill Model Aeroplane Club stole the show at the 1929 Model Engineer Exhibition (7-15th September) that resulted in the change of the club name to The Model Aircraft Club was recounted in our tribute to MR Knight (Vintage Corner, February 1986). This success was due to the sheer excellence of their models, all types being exhibited. Dominating their M E stand — and attracting a great deal of attention by visitors — was the 8ft. 4in. petrol-engined parasol monoplane, designed and built by Herbert H Dowsett of Brixton, known as the Hawk-Special. This model was to be the subject of much controversy. Following a description of the model in Flight magazine, the Dutch enthusiast Juste van Hattum expressed surprise that such an august journal should spend time and effort on a model that had (as far as he

knew) not flown; he saw its purpose merely as an advertisement for TMAC. He did not like the design, and felt that the model could have used some ideas from full-size practice instead of adhering to the standard small-model layout. In a wonderfully controlled reply to van Hattum, H H Dowsett stated that he was not surprised that a man whose experience centred on lightweight models of a few ounces could appreciate that a heavy model like the Hawk-Special (which weighed seven pounds) could ever leave the ground. He related that the model had twice made flights over four minutes and provided the name and address of a witness to one such flight made at Epsom in February 1930. Twice the model had been advertised to fly at TMAC meetings, but the first of these at Epsom in September 1929 was terminated by a broken propeller, and on the second occasion at Wimbledon Common in March 1930 bad weather, rough ground and a badly warped mainplane, plus spectators spread all over the flying ground combined to prevent the model taking the air.

Flight later published the statement that up to June 1930 three petrol-engined model aeroplanes had flown; one of these with great success — was this model the Hawk-Special? It is our opinion that the features of the Dowsett model are entirely suitable for a flying model, and the following description is given in the hope that some enterprising vintage enthusiast will build a replica. Your editor is already making a CO₂-powered version and doubtless radio controlled examples will

follow powered by reliable engines; but who will be so bold as to build the model 'as per', that is, fitted with a two-stroke petrol engine which, equipped with a 24in. fine-pitch propeller will develop 1/2hp at 1200 rpm? And don't forget to use a full-size rotary engine sparking plug fired by a trembler coil! That would be a worthwhile project which might see the Dowsett Hawk-Special elevated to its rightful position in model aeronautical history as a petrol-engined model that had the misfortune not to have its flights officially observed by SMAE officials.

The following constructional notes, which are based on H H Dowsett's descriptive article contain some excerpts that are reproduced with the courtesy of Flight magazine.

Fuselage and Centre-Section

The fuselage was of the usual slabsided type, longerons and cross pieces being of 1/2 x 1/4in. birch with formers of 1/16in. three-ply at all locations. Joints were glued and screwed except for the vertical members at the nose which were made from 1/2in. square birch, halved, then glued and bolted to the ends of the longerons. To take the undercarriage stresses the second and fourth fuselage bays were diagonally braced with wire as in full-size practice, but this was found to be unnecessary and was later removed. At the nose, side cheek panels of 1mm plywood gave a rounded profile and a wrap-around aluminium sheet retained by four wood screws to cross members provided bottom, front and top cowling for the engine compartment. The fuselage covering is not known; this may have been a heavier grade of fabric than that used on the flying surfaces in order to resist damage through handling. The rear bays on the fuselage



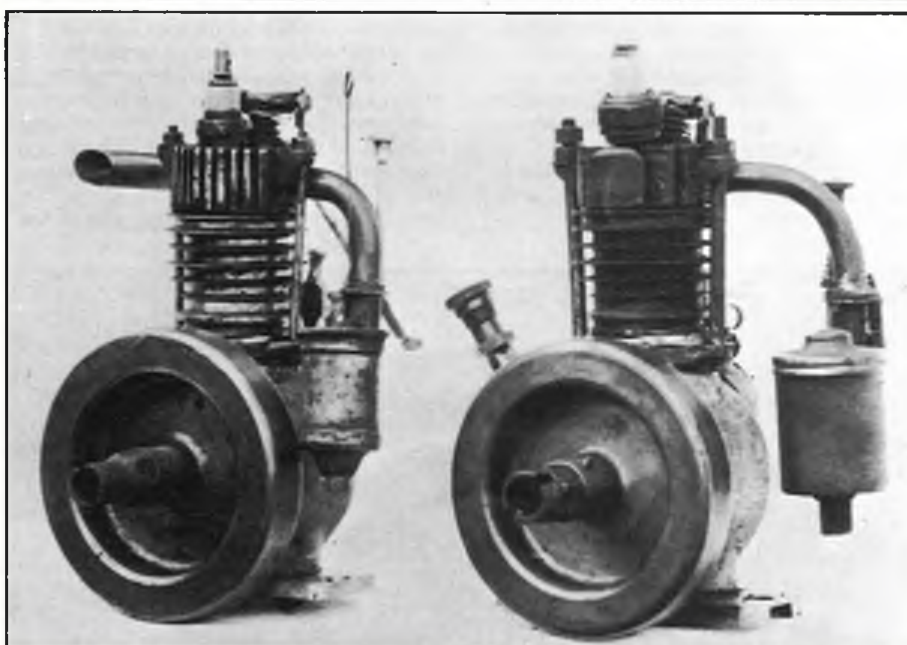
sides (six inches ahead of the sternpost) remained uncovered to allow tailplane installation and adjustment. The fuselage was painted with aluminium dope with longerons outlined in black, this colour also being applied to the three-ply nose cowling side panels.

The centre-section was built directly onto the fuselage and was supported with four streamline struts. Sides were made to aerofoil section from 1/4in. birch nine inches long; cross members were 1/4in. square spruce and the complete centre-section was covered with 1mm three-ply. Wing root attachments were provided by means of two eyebolts fitted through each side so as to line-up with the spar locations on the mainplanes. This component and its struts were also finished in black.

Undercarriage

This was almost a direct copy of that fitted to the Westland Widgeon. It was comprised of two main shock absorbers of

Below: The Dowsett Hawk-Special would appear to possess all the features needed by a successful power-driven flying model. Ignition of the 18cc engine was by trembler coil; the 24in. propeller was driven at 1250rpm. Top right: The model can be seen in the foreground at this TMAC flying meeting on Wimbledon Common, 1st March 1930 - an event that received considerable press coverage. Indeed, this was possibly the first occasion at which a 'talkie' film was made of model aircraft activities. Immediate right: Is that Phyllis herself daring to touch the prop with a gloved hand while Herbert Dowsett searches in the flight kit for some item that he possibly left at home? Note the interest being shown by the spectators in this posed Press photo. Below right: Period pieces from another source - the two 15cc four-stroke petrol engines made by G.G.Harris of Farnborough. Used with success in his Powerboats in 1927 and 1928 they were adopted to power his sons' model aeroplanes. Bottom: The twelve-foot Flamingo I built by Frank M. Harris in the late '20s - a design developed over the next few years. The Harris brothers were regular competitors in the early 1930s



August 1987



the airdraulic type made from two thin cycle pumps of about one inch in diameter. These were constructed as follows: 'The plunger rod was first removed, and the leather cup-washer reversed. A length (2.1/2in) was then cut off the barrel, connection end, and the open end tapped to take the original bush. A coil spring was inserted, followed by the plunger, and the bush screwed home. The connection hole of the pump was sealed by means of a bolt, which also secures a hinged bracket to the top for attachment to the fuselage. It will now be clearly seen that when the spring is suddenly compressed, the air passes freely out of the barrel past the reversed cup-washer, but its efforts to return to normal are checked by the suction, which was found to be so great that it was necessary to drill a small hole to permit a slow inlet of air.'

The cross members consisted of tubes attached to the longerons; inside were steel rods 5/32in. in diameter which were attached to the bottom of the shock absorber legs via flexible joints (these appear to have been strip rubber lashing the axles to the undercarriage vees) and were then bent through 135 degrees to provide axles one-and-a-half inches long. A close examination of photographs shows that the tubular cross members that take the rods had fittings reminiscent of those used on the old rigid type of cycle brake linkages, and that may indeed have been their origin. Two rods running aft to anchorages on the longerons comprised the rear struts of the undercarriage. Initially wheels of approximately four inches in diameter were fitted but these were later replaced with larger wheels which were merely discs of nine-ply wood eight inches in diameter fitted with brass bushes. A small sprung tailskid pivoted on the bottom longerons immediately ahead of the sternpost completed the undercarriage system, all components of which appear to have been given the black-finish treatment.

Flying Surfaces

The mainplane wing panels were four feet long with a chord of twelve inches. Ribs — of the section shown — were made from 1/8in. whitewood fretted out for lightness. The root and tip ribs were faced with 1mm three-ply which not only added strength but facilitated the attachment of the silk covering. Three spars of 1/4 in spruce were used while the leading and trailing edges were of 3/8 x 1/8in. birch. The diagonal internal wing bracing was by means of 1/4 x 1/16in. birch glued and pinned in place. The attachment of the wings to the centre-section was via steel wire hooks which were bound to the spars projecting from the root ribs in order to engage in the eyebolts at the centre-section. Eyebolts at leading and trailing edges and steel wire hooks anchored the extremities of the vees to the wings, while the strut lower ends terminated in a metal cup which had a small brass lip that fitted between eyebolts in the lower longerons locked in position by a steel wire clip.

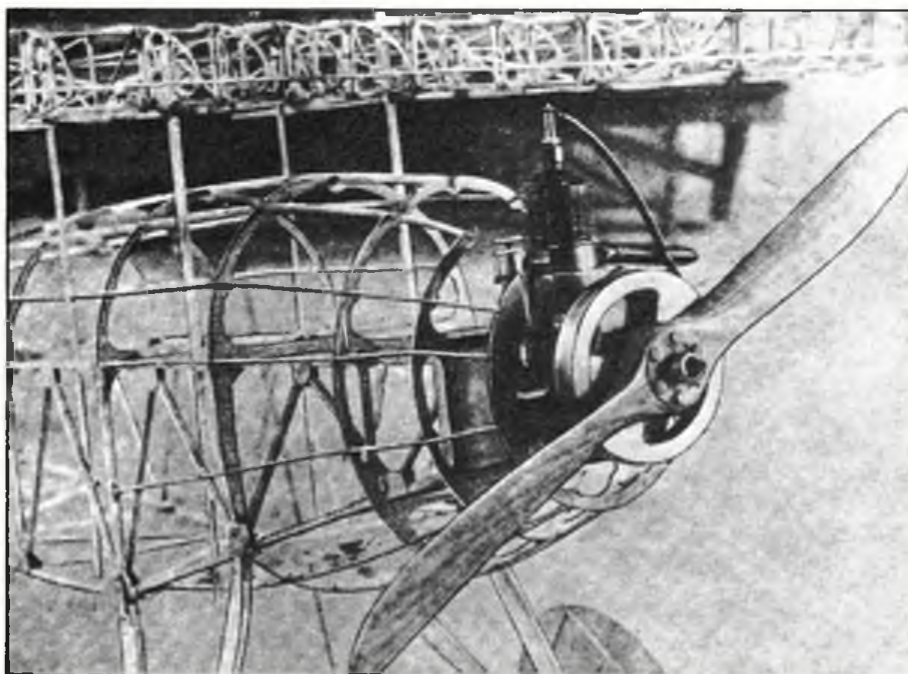
The tailplane was of two feet span and seven inches chord; leading and trailing edges were of birch of slightly smaller section than that used in the wings; 1/4in. sq. for the front and 1/8in. sq. for the rear or auxiliary spar. Ribs of symmetrical section were made from 1/16in. three-ply. The centre part of the tailplane was left uncovered in order to provide access and attachment of the tailplane with its associated adjusting gear. This was detailed in the following manner: 'The centre of the rear spar of the tailplane is hinged to a block screwed to the upper longerons...the leading edge has a small brass bush through which passes a length of threaded rod. A flat brass plate is screwed across the upper longerons of the fuselage, the end of the rod passing through a hole in the centre, and having a fixed bush on the underside of the plate, and a knurled knob on the upper. By turning the knob, the leading edge of the

tailplane is raised or lowered as desired.'

The flat-section fin was constructed from steel wire and was attached to the fuselage by a straight prong at the rear which went into a small copper tube bound to the sternpost of the fuselage. At the front a curved piece of wire passed under a small terminal, thus rendering the fin adjustable and capable of being locked in any position. Initial tests showed that the fin suffered from serious flutter so it was necessary to stay it to the tailplane tips by means of bracing wires. Mainplanes, tailplane and fin were all covered with Japanese silk and painted with aluminium dope. The finished machine which must have presented a smart appearance in its black and silver paint bore the name 'Phyllis I' on the starboard side of the engine cowling, while both sides of the fin or rudder were marked with the initials of the Parliament Hill Model Aeroplane Club and the numeral 26, denoting Herbert Dowsett's membership number.

Power Plant

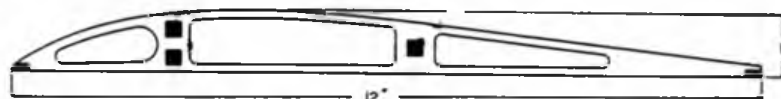
The engine was an air-cooled two-stroke with bore and stroke of 1 1/8inch, giving just over 18cc capacity. The cylinder was machined in one piece, the head being drilled and tapped to take the standard sized rotary engine sparking plug which apparently had the cooling fins with which such plugs were made machined off. The piston (which had a deflector head) was fitted with two piston rings spaced 1/8in. apart. The aluminium crankcase was divided vertically and was bolted together, the front portion carrying the single crankshaft bearing. Lugs projecting from the sides of the crankcase enabled the engine to be fixed to two steel brackets which were in turn bolted to the vertical members in the nose of the fuselage. The balanced crankshaft drove a propeller hub which incorporated a number of steel driving pins that fitted



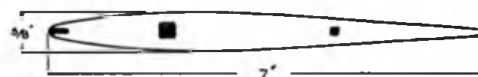
Left: Edgar Westbury's 52cc Atom I with flywheel magneto installed in the half-scale CLA 3 that was designed and built by Cranwell aircraft apprentices in 1926. More on this machine in a future issue! Above: This ten-foot biplane powered with a 30cc four-stroke was an early effort by J.W.Bishop. It led to his famous Endeavour which did much flying before Bishop gave up aeromodelling to build a Flying Flea. Top and side view of Dowsett Hawk-Special have been re-drawn from the Flight original to show basic structure. Front view is as first published. Reproduction of this, and details above right, by permission of Aeroplane Monthly.

Aeromodeller

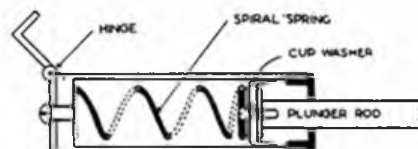
into holes in an aluminium bush in the propeller boss, and was retained by the usual nut. A brush-and-pin contact was situated immediately behind the propeller and the fitting for the brush was rotatable thus providing for the advance and retard of the ignition. A standard-size pocket torch battery was used to operate a small Gamages trembler coil which despite measuring only $2\frac{1}{2} \times 1$ in. gave an efficient spark despite the low amperage available. These components were fixed to a hinged flap on the underside of the fuselage slightly aft of the mainplane. (Note that a trembler coil emitted a shower of sparks when the contact was made. The actual make-and-break electro-magnetic points were contained inside the coil housing, as was the condenser in most



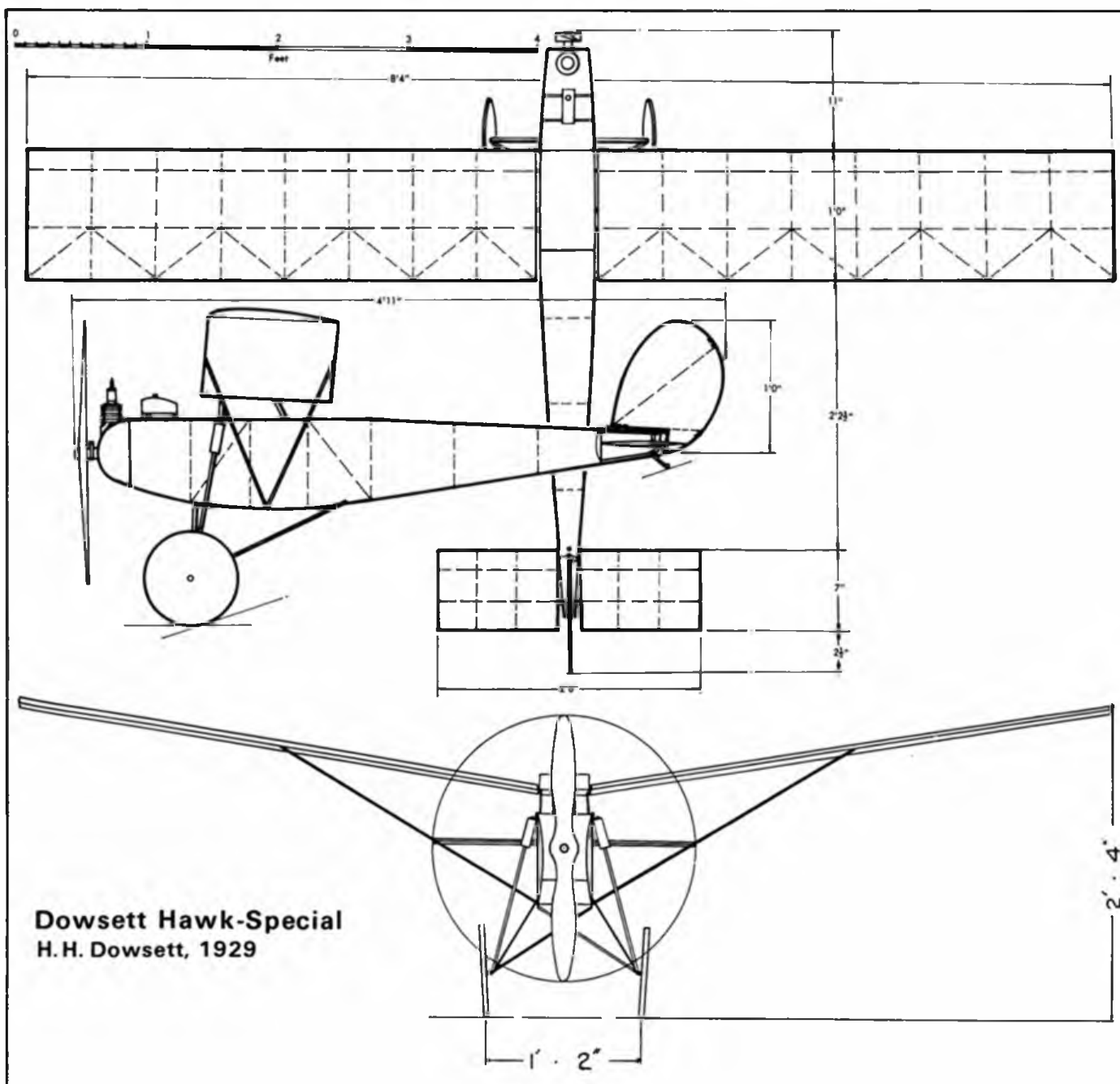
Rib section used on the Hawk-Special wing.



Tailplane section of Hawk-Special.



Section of home-made airhydraulic shock absorber.



cases. The crankshaft operated brush was merely a wipe contact without the sophistication of what we now refer to as a mechanically-operated contact breaker).

The original idea was to carry the petrol tank in the centre-section, the carburettor being a needle valve controlled atomising tube operated by gravity feed. However, vibration introduced air bubbles into the fuel line, causing the engine to misfire which, stopped the engine because the wooden propeller lacked sufficient flywheel effect at this low rpm. This was remedied by fitting a float-controlled carburettor directly to the cylinder and moving the tank to an adjacent position.

The tank, made from sheet brass measured 3 x 1 1/2 x 1 in. and contained sufficient fuel for 25 minutes running at full throttle. It was fixed to the fuselage by brass brackets soldered to the tank and screwed to the top longerons immediately behind the engine.

A coarse pitch four-bladed wooden propeller of eighteen inches diameter was originally used. The engine's top speed was 900 rpm. There is a photograph of the Dowsett Hawk-Special with this four-bladed propeller on page 8 of F J Camm's book *Model Aeroplanes and Airships*. This propeller, which may have been that already mentioned as having been broken

at Epsom in September 1929 was replaced with a finer pitch two-blader of 24 inches diameter which considerably improved the performance of the model and raised the engine top speed to a respectable 1250 rpm.

Comment

The construction of the Hawk-Special followed some full-size practices, such as the rigid installation of airframe components and the vertical shock absorbers in its otherwise unyielding undercarriage, that are not given to long life with a heavy free flight power model. However, the machine also possessed



Main picture: An historic photograph. C.E. Bowden is about to release his Kanga biplane at Faleys Aerodrome, Hayes on 15th May 1932 when its flight of seventy-one seconds broke David Stanger's eighteen-year-old record of 51 seconds. Left: Kanga taking off at Wimbledon common in the same year. The success of this machine caused 'CEB' to get Westbury to make the 14.2cc Atom Minor engine, which later was commercially available.

Do readers have any 'period' shots in their albums? We'd love to publish 'em...



practical reliability in the manner of tail-unit adjustment and by the employment of thin profile wheels that would give little drag on take-off with the marginal power available. But more importantly, the design of this model was far ahead of its time — the parasol mounted wing with generous dihedral balanced by the side area of the large diameter wheels, not to mention the low centre of gravity obtained by the location of heavy ignition system components in the lower fuselage, were good inherent petrol-model stability features that would not be appreciated for several years to come. Their provision in this 1929 design confirms beyond doubt



Top right: By September 1932 the prototype Atom Minor was flying in the Bowden Gull, a nine-foot monoplane that was not overly successful, but when the engine was fitted to a hurriedly-built high-wing monoplane named the Bee, Kanga's record was broken on its first day out; 6th November 1932. Right: Old Vintage Corner himself, Alex Imrie discusses the Wall engine with C.E. Bowden in 1981. Although this engine apparently flew the large biplane shown here under radio control in the 1960s, by the time this photo was taken CEB gave it only an annual run 'for old times' sakes'.



the forward thinking of Herbert H Dowsett and indicates that this model was perfectly capable of sustained, stable flight.

If indeed the model's ability to fly was seriously hampered by the doubtful or erratic power output of the engine described, it is a pity that Mr Dowsett did not take advantage of Edgar Westbury's offer of an engine to TMAC which was made in mid-1930. While the size of this engine is not known with certainty, it is a fact that Westbury had been given a 25cc air-cooled two-stroke engine the previous year by Elmer A Wall of Chicago, and this was possibly what he had in mind. Although the Wall engine was capable of driving a twenty-four inch propeller at 2600 rpm, it weighed almost four pounds at this time, twice the weight of Dowsett's engine. In the event, a whole year was to pass before Westbury delivered a lecture on petrol engines for model aeroplanes and gave demonstration runs before TMAC members. Again Westbury expressed his willingness to provide an engine if a suitable model aeroplane could be produced. He obviously also made this offer to the SMAE, and Captain (as he then was) C E Bowden undertook to build such a machine. The result was the seven-foot span Kanga biplane which, fitted with the now considerably-lightened Wall made the

officially observed flight from Fairey's aerodrome at Hayes in Middlesex on 15 May 1932, as mentioned at the beginning of this article.

Although there was plenty of interest in Westbury's proposition to the TMAC, (they even acquired his 30cc Atom II engine for experimental purposes) it was not until he was in contact with C E Bowden that things began to happen. Westbury found this keen and practical enthusiast determined to build a successful petrol-engined model and the Wall could not have been in better hands.

The success of Kanga caused CEB to get Westbury to make an engine of much smaller proportions; thus was born the Atom Minor of 14.2cc capacity which was designed and built in a three-month period. This engine was then produced commercially thus providing the main means of British modellers getting their models airborne from 1933 onwards. Gone were the frustrations of having to make your own engine (although some stalwarts still did this). In a few more months the first examples of the American Brown Junior of even less capacity and just over half the price of the Atom Minor reached this country, and before long petrol-driven model aeroplanes became almost commonplace.

What's on...come on, the summer's here, - isn't it?

12th July
SCOTTISH AEROMODELLERS' ASSOCIATION T/R COMP
Open Goodyear, 1/2A T/R, FAI T/R. Venue: Newhouse. Contact: Neil Munro, 30 Lamberton Court, Pencaitland, East Lothian EH34 5BL.

19th July
SHUTTLEWORTH MODEL GROUP OPEN DAY
Old Warden Airfield, Biggleswade, Beds. 9am-6pm. Everyone welcome! C/L scale competition and general fun flying. Contact: Mick Staples. Tel: 0223 241978.

19th July
BLACKPOOL AND FYLDE RCMS SCALE FLY-IN
R/C Semi-scale to super-scale: all welcome. Grass runway! Venue: Blackpool Zoo flying site. Contact: Chris Bromley. Tel: 0253 25080.

19th July
COLCHESTER MAC VINTAGE DAY
Texaco, Flying Fifteen, Precision and fly-for-fun. R/C only. SAE for details to Peter Grant, 2 Duncan Rise, Gt Yeldham, Halstead, Essex. Tel: 0787 237967.

26th July
FACCT THERMAL SOARING RALLY
Venue: RAF Weston-on-the-Green, BARCS League and R/C Chuck Glider. Pre-entry £2.00 + SAE. SAE members only. Contact: N.G. Webb, The Bungalow, 13 East Street, Fritwell, Oxon OX6 9PX.

26th July
INDOOR EVENTS AT CARDINGTON
1988 Indoor W/C Team Selection Trials (second three flights in rounds). Fun flying if no interference with comp flights. Contact: Bob Bailey. Tel: 0438 723642.

26th July
1987 DREAMING SPIRES GALA
Comps: Vintage, lightweight rubber (36in. span max.), Vintage glider (up to A/2), vintage HLG, CO₂ Precision, Rubber kit contest (36in. span max., plastic props and D/T allowed). Scale events for F/F power (up to 1.5 cc), CO₂/electric, Rubber (15in. span min) and KK/Veron Rubber scale Mass Launch. SMAE membership required for flying. Venue: Port Meadow. Contact: Charlie Newman. Tel: 086 77 3020.

1-2nd August
WOODVALE RALLY
Model flying, competitions and displays; full-size aerobatics, vintage and classic cars; R/C cars and much, much more. 9am - 6pm each day. Entry £8.00 per car. £8.00 two-day ticket; children and OAPs £1.00.

2nd August
VINTAGE R/C GLIDER FLY-IN
Venue: Wolverhampton or Frankley; to be confirmed. All flying will be from peg-board. Pre-entry. Contact: Dave Jones, 5 Wootton Rise, Alcester Road, Wootton Waven, Warwickshire B95 6BJ.

2nd August
THREE KINGS C/L CARRIER DAY
Old Croydon Airport, Purley Way, Nr Croydon, Surrey. Profile carrier. Silencers and insurance essential. Contact: Derek Bird. Tel: 01-874 6394.

2nd August
WAKEFIELD MFC STUNT COMPETITION
Venue: Thornes House School Playing Field, F2B and Novice Stunt. Contact: B. Temporal. Tel: Wakefield 270690.

9th August
SCOTTISH AEROMODELLERS' ASSOCIATION T/R COMP
Open Goodyear, Class II Goodyear, 1/2A T/R, FAI T/R. Venue: Newhouse. Contact: Neil Munro, 30 Lamberton Court, Pencaitland, East Lothian EH34 5BL.

15-16th August
ASP VINTAGE WEEKEND
Venue: Old Warden Airfield, Biggleswade, Beds. Don't miss this one. Vintage enthusiasts! Two days packed with everything you could wish for - R/C, F/F and C/L Vintage models of every type. Informal and semi-formal competitions, many courtesy of SAM 35 - but lots and lots of fun-flying and the chance to browse amongst nostalgia! Contact: Aeromodeler Tel: 0442 41221.

15-16 August
PLUMPTON '87
Planes, cars, boats, trains, traction engines and lots more, including trade stands and a live band plus fairground and many other attractions. Aircraft from chuck gliders to pulse jets will be there. DPR Competitions for juniors on both days. Prizes! Full camping facilities at £15 per family for the weekend; daily entry is £2.00 (adults), £1.00 (children). Senior Citizens free. Car parking free. Venue: Plumpton Racecourse. Contact: Dave Bishop (D.B. Sound). Tel: 0959 77550.

16th August
FACCT MINI-GLIDER COMPETITION
Venue: Weston-on-the-Green area 60in. span. 20 oz max. Bungee launch. Pre-entry £1.50 + SAE. Contact: N.G. Webb, The Bungalow, 13 East Street, Fritwell, Oxon OX6 9PX.

22-23rd August
SCOTTISH F/F NATIONALS
Venue: Newbiggin, Nr Carnwath. Campsites nearby. 22 August: FAI Day each class five rounds. 23 August: O/R, O/G, O/P, All-In Mini, Vintage 10am-5pm. Contact: Ron Sabey. Tel: 0698 429170.

23rd August
INDOOR AT CARDINGTON
Fun Flying and All-In index (best single flight). Contact: Bob Bailey. Tel: 0438 723 642.

29-31st August
1987 SMAE RADIO CONTROL, CONTROL LINE AND FREE FLIGHT (SCALE) NATIONALS
Venue: RAF Barkston Heath. Contact: SMAE. Tel: 0533 518500. See 'Hangar Doors' in this issue for details.

6th September
SHUTTLEWORTH MODEL GROUP SILENT DAY
Old Warden Airfield, Biggleswade, Beds. 9am-6pm. No i.c. engines to be run. Contact: Mike Staples. Tel: 0223 241978.

6th September
TEESSIDE MFC SCALE & VINTAGE MEET
Visitors welcome but Comps restricted to TMFC members. Contact: Stuart Smith. Tel: 0642 764842. (essential as no further details given)

13th September
INDOOR AT CARDINGTON
1988 W/C Team Selection Trials (third three flights in rounds). Fun flying if no interference with comp flights. Contact: Bob Bailey. Tel: 0438 723642.

13 September
WINTHORPE R/C MFC SCALE FLY-IN
Venue: Winthorpe Showground. Contact: J. Shaw, 68 Macaulay Drive, Balderton, Newark NG25 3JQ.

13th September
SCOTTISH AEROMODELLERS' ASSOCIATION T/R COMP
Open Goodyear, Class II Goodyear, 1/2A, T/R, FAI T/R. Venue: Newhouse. Contact: Neil Munro, 30 Lamberton Court, Pencaitland, East Lothian EH34 5BL.

13th September
TOWNER TROPHY FOR THERMAL SOARING
Venue: Golden Cross, Sussex. Contact: N. Couling. Tel: 0323 503116.

20th September
INTERNATIONAL R/C SCALE EVENT
Venue: Odiham. Contact: Pate McDermott. Tel: 025126 3216. Note: NO other events at this venue!

20th September
THREE KINGS C/L SCALE DAY
Old Croydon Airport, Purley Way, Nr Croydon, Surrey. FAI Scale and Profile classes. Silencers and insurance essential. Contact: Derek Bird. Tel: 01-874 6394.

20th September
INDOOR AT CARDINGTON
Fun flying; reserve date for 1988 W/C Team selection Trials if required. Contact: Bob Bailey. Tel: 0438 723642.

27th September
DOUG BLAKE TROPHY C/L STUNT COMPETITION
Venue: Slip End, Luton. Contact: Glen Alison. Tel: 0923 772675.

27th September
SOUTH MIDLAND AREA THERMAL SOARING RALLY
Venue: RAF Weston-on-the-Green, BARCS League and R/C Chuck Glider. Pre-entry £2.00 + SAE. Contact: J.H. Shaw, Alver, Winney Road, Freeland, Oxford. Tel: Freeland 881350.

28th September
HUDDERSFIELD ANNUAL THERMAL CROSS-COUNTRY EVENT
To be held over a 10-mile course. Teams of four eligible. Start from Birdsedge flying site. All frequencies. Entry £2.00. Contact: Ian Roebuck, Keips, Dunford Road, Holmfirth, West Yorks.

27th September
ROLLS-ROYCE VINTAGE FLY-IN
Optional R/C assist, Texaco and flying fifteen events, optional C/L Old Time Stunt and Midge Speed. Venue: Rolls-Royce airfield, Hucknall, Notts. R/C Contact: P. Thompson, 8 West Terrace, Hucknall, Notts NG15 7GD. C/L contact: T.P. McDonald, 351 Uttometer Road, Mickleover, Derby DE3 5AH. Tel: Derby 511273. SAE with enquiries please.

27th September
WHARFEDALE 1000
Class B T/R, including Vintage. Venue: RAF Dishforth. Contact: Jeff Smith. Tel: 0532 663432.

27th September
HEMINGFORD ABBOTS VINTAGE MEETING
Vintage Lightweight Rubber, 36in. max. span; separate comps for Free-wheel and Folders. Achilles comp. Senior and Junior if more than three junior entries. Jetex/Jet-X 50 duration event. Modern designs permitted. Also F/F power sport flying, vintage R/C (possible informal comp for 'most authentic model'), Vintage Stunt and Midge Speed. F/F Contact: Chris Strachan. Tel: 0480 68815. R/C contact: Robin Gowler. Tel: 0480 63509. Nominal fee for use of field.

4th October
HESWALL MAC OPEN C/L COMPETITIONS
F2B Aerobatics, Novice/Junior Aerobatics (10% advantage to Juniors). Competitions sponsored by Neston Computers. First prize in F2B is a telephone; plaques for top three in both comps plus top Junior. Silencers and insurance essential. Entry: £3.50 (Seniors and Novice Adults); £2.50 (Juniors - under 18). Contact: C. Humphreys. Tel: 051 639 1463 (Mon-Fri, 9am-5pm) or write: 249 Rake Lane, Wallasey, Wirral L45 6DJ.

Late Confirmation!

8-9th August
SAM 35 WAKEFIELD ANNIVERSARY EVENT
confirmed. Venue: Warwick Racecourse. Vintage - Wakefield competitions (4oz and 8oz rules) to be flown on Sunday, other attractions on Saturday include a Vintage Power one-model contest for The Kid. Check for exact details. Contact: Colin Watts, 29 Marchmont Road, Wyke, Green, Sutton Coldfield, W. Midlands.

30th August
NATS FUN EXTRA - Informal KK/Veron Scale rubber kit mass launch at lunchtime. Free entry! Bring a model and join in the fun. Details to be advertised at the SMAE Control Tent (information via Charlie Newman).

10-11th October
RAFMAA INDOOR 1
Venue: RAF Upavon, Pewsey, Wilts. Informal competitions on Sunday for Portsmouth Duration, Scale Pylon Race, Indoor Helicopter Climb. SMAE membership and prior contact essential. Details from Andy Sephton, 3 Bury Mead, Codford, Warminster. Tel: 0985 50576.

11th October
LONG MAN TROPHY (ROUND TWO)
R/C Slope Soaring. Contact: T. Parris. Tel: 0323 643630.

11th October
EASTBOURNE MAC THIRD R/C VINTAGE MEETING
Venue: Golden Cross, Sussex. Contact: D Marchant. Tel: 0323 504538.

11th October
SCOTTISH AEROMODELLERS' ASSOCIATION T/R COMP
Open Goodyear, Class II Goodyear, FAI T/R. Venue: Newhouse. Contact: Neil Munro, 30 Lamberton Court, Pencaitland, East Lothian EH34 5BL.

11th October
HUDDERSFIELD OPEN VINTAGE RALLY
F/F Vintage F/F Vintage C/L, R/C Assist. No formal contests. Non-vintage F/F limited to 0.8cc diesels; silencers not required on vintage models with appropriate engines. Venue: Whiteley Common. Contact essential for frequencies. Colin Thompson. Tel: 0484 850422 or 851433.

18th October
WATFORD INDOOR FUN-FLY AND LYMPE TRIALS
Venue: Watford Leisure Centre, Watford, Herts. 11-6pm. Just turn up and fly - all welcome! Contact: George Whitebridge of SAMS at 2 Blackmore End, Wheat-hamstead, Herts.

18th October
SOUTH BIRMINGHAM MFC VINTAGE C/L RALLY
Venue: Rubery Hill Hospital, Rubery, Nr Birmingham. General flying for all SAM 36 and SMAE members. Fun comps to SAM 35 rules. Contact: Peter Martin. Tel: 021 459 5520.

15th November
SOUTH BIRMINGHAM MFC, SAM 36 AND MECA SWOPMEET
Venue: St Brigid's R.C. School, Frankley Beeches Road, Northfield, Birmingham. 12.00 Start. Contact: Peter Martin. Tel: 021 459 5520.

15th November
INDOOR FLY-IN
Venue: Sports Hangar, RAF Biggin Hill, Kent. SMAE Members Only. Contact: N.F. Couling. Tel: 0323 503116.

Anytime...
News of future events always welcome, but do submit in jolly good time! Reports of outstanding meetings also wanted, but make sure there's a decent photo or two. Come on, Club secs and PROs - there's no magic involved in getting a Club mention in *Aeromodeller*, just a bit of work with camera and pen. Go to it - as soon as you like!

SPECIAL VINTAGE WEEKEND REMINDER

Don't forget this classic Vintage funfair at Old Warden on 15-16th August!

Prizes for outstanding achievement: the Lancaster Cup for Midge Speed, Fireball Trophy for most authentic control-line model - and a host of informal-ish competitions under the Old Time umbrella of the SAM 35 organisation. Or just come along and join in the merrymaking.

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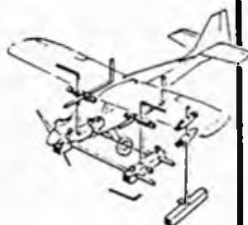
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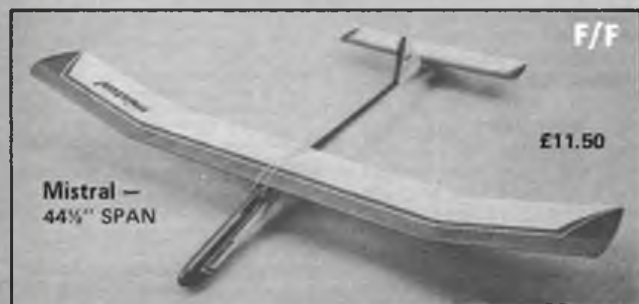


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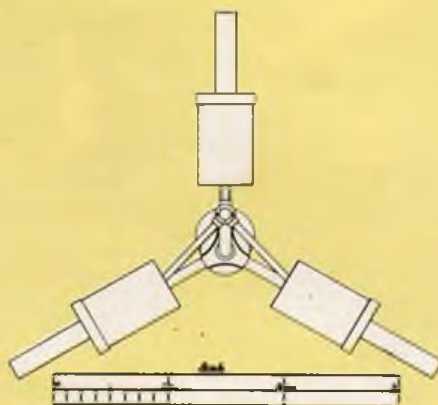
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On The Trail Of A Comet by J. Last Plan CL/694

Inspiration to build a DH88 Comet. Plan CL/694 from May 1958

https://outerzone.co.uk/plan_details.asp?ID=2764 ...

[Document Page: 14](#)

Thunderbird by Bob Palmer

CL Stunt model presented in MIND THE LINES

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It's A Hinney by Tony Cordes

Full size plans for Tony Corde's A1 Glider

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Thruster by Cedric de la Nougerede

CO2 micro light from Cedric de la Nougerede plus free plan

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F1B Easter Winner by Ian Kaynes

FF Rubber Model presented in FREE FLIGHT SCENE

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Powermouse by Bob Jones

Bob Jones designed CO2 Miniature of the Stateside classic plus free plan

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Hawk Special by H.H. Dowsett

Model from 1929 presented in VINTAGE CORNER

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