Diary

7th November Bassingbourn	Richmond Gala: FAI plus Mini, starting at 10.00 hours
5th December Halton	INTERNATIONAL WINTER CUP: CDH 100 grams, 3 flights ROG; CDH 80 grams, 5 flights H/L. Entry to Pete Richardson at Aero Modeller, as soon as possible.
12th December Barkston Heath	SMAE Centralised Mini event: A/1, CDH, ½A, HLG.

FFn

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FREE FLIGHT NEWS

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Compiled and published by Ian Kaynes and Paul Masterman

INDOOR WORLD CHAMPIONSHIPS, 1976 Cardington, 27th - 31st August

Report by Paul Masterman

It has always been a semi-intellectual pastime inventing phrases to describe collections of things - a pride of lions, a cackle of wives. One such recent creation has been 'a composite of trade unionists'. From our point of view, those whose minds turn to such things may attempt to improve on the cliche of a fraternity of flyers, but however much they may offer alternatives, the general atmosphere of a contest, particularly of international and World Championship status, confirms the appelation. Cardington '76 provided a further confirmation.

Co-operation and curiousity are combined at indoor meetings, and advice is more freely offered in this branch of our technological sport than any other. If you doubt the truth, then you only have to look at the results. If people who have never flown before in high ceilings and have only recently taken up indoor flying; who are still battling with the technique of building, covering and bracing ; who've never ever seen a balloon and line steering device (let alone used one!) - if such raw beginners can do good times, then they do it either by luck or because someone has tipped them the wink on how to go about things. And as a general rule, the second reason is the more likely. Furthermore, the students don't seem to forget the lessons all that quickly. Readers may like to compare the results of this Championships with previous events, held at Lakehurst two years ago, or more relevantly and spectactularly, with the Cardington session in '72 (which inspired a crwwd of people to take up Indoor, inclusive of the writer).

Organisationally, Cardington '76 was a thoroughly well prepared event, as one might expect when the resources of a businessman and his business are freely donated to the cause. For this, we have to thank Laurie Barr, who not only supervised basic arrangements, but provided those extra touches - decals, Tee shirts, a finely-produced programme - which turn an experience into a pleasure. It was especially pleasing that Laurie did well in the competition.

At the event itself, there were one or two rather minor, but still niggling problems over the timetable, but most people seemed to go away reasonably happy. It is a point to bear in mind for the future, however, that we should employ more languages than just English and that a noticeboard should be displayed in a prominent position on the edge of the flying area. On it, notices of any changes in routine could be made, thus avoiding arguments such as occured right at the end of the second day, on when flying should finish. This episode, which irritated the Czechs and nearly caused a protest, was induced by the change in timetable on the previous day. Limits of 10.00 to 18.00 had been placed on the times of official launches, one country having not more than one model in the air at once. Due to poor conditions on the first morning of official flying, the start time came and went, with nobody wishing to have a go. Later, it was decided that flying hours should be extended by 30 minutes to compensate. Furthermore, some flyers who did not manage to complete all three flights on Day One were given the opportunity to make a replacement attempt first thing on Day Two. This, together with a few 'double flights' at the end of the first day was another bending of the original rules. The real cause for concern was that the timetable reverted to normal on the second day, thus flying closed at 6 o'clock - to the chagrin of Chlubny in particular, who's only managed five flights. Bearing in mind that conditions by then had become pretty ropey, it is very unlikely that Chlubny's last flight (had he taken it) would have affected the results significantly, but nevertheless, the principle was there; having made a decision and announced it verbally and in writing, it is not unreasonable to stick to it. If suggestions for change are offered, they need to be cast iron - and so does the resolve of those applying them.

Lest this should sound churlish, let's state that, compared to other

efforts elsewhere, Britain is still in the forefront of the top group when it comes to running such events, so hearty thanks are due.

Day One (Sunday)

After an excellent breakfast supplied by the RAF Halton mess (what has happened to service catering? It really did used to be lousy, didn't it?) and a misty drive across the Bedfrodshire border, the fifteen nation contest was underway. Three-man teams came from Canada, Czechoslovakia, Finland, West Germany, Italy, Japan, Jugoslavia, the Netherlands, Poland (who were defending champions), Sweden, Switzerland, the USA, and the home country. Australia and France were represented by single individuals. As already mentioned, official launches took some time to appear. Conditions were cold and soggy, and while not unknown to the British, most others were perfectly content to wait for the conditions to improve. Test flying, as on the previous day, took place, a number of people using half-motors to limit the risk to the model through climbing too high. In equipment, there really was relatively little new to report - virtually everything was refined general practice. Perhaps the only significant trend seems to be the adoption of offset (angled) wing posts. The purpose of these is to allow regular pitching the the mainribs across the inner panels of the wing. Presumably this is both structurally and aerodynamically more satisfactory.

First man to take the plunge was Swede Sven Pontan. Unfortunately, the Scandinavians, both Swedes and Finns, had a thin time of it. While their models showed every sign of their owners having gleaned information from international sources, their unfamiliarity with the site and inexperience with both technique and equipment resulted in some fairly extensive model damage. This, of course, compounds the difficulties of learning by experience. The Finns came ungummed for slightly different reasons - though they do have some experience of Cardington. One suspects that a number of people are still hypnotised by the cross-sectional size of rubber motors. The lesson is simple: if a model is trimmed, but fails to go up, then comes down too soon with masses of turns on the motor, then that motor simply isn't up to the job. The old technique of cutting a length out is all very well if you find you're still left with enough turns for a half-hour plus flight, but if not, the answer is final: to make things work, beef up the rubber.

But soon the fun started to come thick and fast (in Indoor terms, that is!). Czecowski got in the air, but was slightly to one side. Attempts to steer were not really on, so he was one of the first to hang up. For the British, Ron Green got away, and local knowledge together with all this year's hard practice, told its own tale. Ron's model got to the top too soon, but he was able to balloon it down possibly about ten feet and then allow it to climb back up again. The result was a really good one for starters. For the USA, Richmond had some miserable problems finishing with a hang, But Romak and Servaites showed the way, each with 34 plus! Meanwhile, Ciapala (whois, after all, a World Record holder) started with a smooth 35.45 - obviously the Poles had not lost their touch since Lakehurst. Also from across the pond, the Canadians (that is to say, that team with the usual heavy smattering of ex-pat. British!) were well and truly turned on. MacGillivray put up what seemed a beautifully judged flight for just under the half hour, while deMello and Thomas were well over the hump and in with the leaders.

The only really unusual models, brought along by the Swiss with Dieter Siebenmann both flying and managing, were not showing their paces. The models had extremely short noses and very long tail moments - consequently very rearward CG's (they looked somewhat indoor A/2's, but scaled down and powered). Later, when less pushed for (day) time, they showed a remarkable performance. Dieter promised details for FFn later.

Meanwhile, the Czechs, while not quite reaching the best of Canadian, US

or British standards, had Ribecki and Kalina with good starts, though Chlubny was not quite so fortunate. When winding, Eduard took the motor to a specified torque with it stretched out, then continued winding slowly at that torque, coming in slowly. As a result of not employing 'O' rings, and by acting only by himself (though with occasional small cries for help from his quiet and genial wife, or his compatriots) the motor got onto the model. At launch, in the company of Kalina, he ran some turns off (to a pre-determined prop rpm?) then let go. But the motor bunched. Had this not happened, he might have expected quite a bit more than the 29 minutes he got. Nevertheless, the Czechs were looking good in the field.

Later that day, as flying conditions improved, the times got better in suit. Australian Boyd Felsted, under the more than able managership of Reg Parham, and who had travelled via the USA taking in the indoor 'sites' en route, broke 31 minutes twice. For Boyd, this was making the trip well worth while, even though he was nowhere near the leaders. Similarly, Werner Wetzel, who was head and shoulders ahead of his fellow Germans, had a total over the hour, but was not in the running. The really top stuff came from the Czechs and the Poles, with the British and Canadians also producing some classic flights - up to the top in twelve to fourteen minutes, and in the middle, vast cruises and apparently interminable let-downs. Of the British Blount set the scene after a poor time (for him) on his first flight. Barr and Green sandwiched the former's flight time. Ciapala's very straightforward ship employing a symmetrical prop outline churned away for a 36 plus, but nobody quite reached Barr. The Americans were having problems and not even manager 'Pete' Andrews could help - Servaites in particular had two duff scores, getting stuck here, there, if not everywhere. The Canadian times were, I think they would admit, due to a small increment of good luck - but we all know how important that is. De Mello spent some time bouncing around the top (on the third flight the luck ran out and he stopped) and Thomas got a nice tailslide when touching, putting him out of trouble.

By the end of the day, it was the Poles, Czechs, Canadians and British who were leading the way home. Little did we realise that things were to change quite drastically the following day, though in model flying, any and everything is to be expected.

As is usual, people were not desparate to leave the shed that evening and the normal amount of rebuilding was going on amongst the less fortunate. Among the experts, Kalina was to be seen stiffening a wing with additional balsa bracing. A spar was not standing up to the bending moment due to a cantilever tip, so on went a stick of wood - glued with a brush - to be cut off short when set and the existing bracing wire strung over the resulting post. Wing camber on this model was 'a la Kowalski', though who knows who invented what? A close inspection of Chlubny's model showed quite short wing posts and two sets of wing sockets on the stick, about 1 cm apart. On the following morning, he was using the aft pair, thus providing a more forward CG. Fins are still something of a designer's joke; there is no concensus on size, shape or location. Most are positioned to allow greatest convenience for transportation. Most mainplanes had fully curved tips, although Richmond was using an angled joint at the trailing edge tip - a la Kalina's models in '72, thought the latter is 'back to normal'! Of novel ideas, the Swiss had screw-in legs for a model box, converting it into a table, and the Dutch (probably remembering the regular fun and games when taking a model for processing and then transfering it to the launch site) had a wooden-framed box covered in polythene sheeting, with strong string handles. Inside this a completely assembled model could be placed for carriage. Being effectively airtight, this meant they could move about at normal walking speed with the model in complete safety: a valuable idea for those days at Cardington when the Met boys wish to open the doors and bring in a balloon. One surprisingly missing factor was tail tilt. This invaluable aid to climbing turn

especially during the first half minute after launch, was not present on a number of models. This usually resulted in a dire panic session from the owner just after letting go, often with the model galloping towards the nearest side girder. Even one of the Polish models was susceptable to this, though later the boys were seen to be tweeking things to effect some improvement...

Day Two (Monday)

There was rain in the air on the Monday morning early, as noted by those who took an early walk and/or strolled to breakfast! In the shed, the atmosphere was akin to glue and there was a distinct haze visible when looking across the world's biggest tin hut (no, it wasn't the previous night's revelries...). The damp air had a debilitating effect on the models: not only did it make them heavy, but it softened the sticks and tailbooms. Ciapala's first 'official' of the morning resulted in stalls and a tailslide, with the conclusion being a donged tailboom. Rather to everyone's surprise, he elected to re-launch, after straightening things out. The result was fairly predictable - 46 seconds Also suffering a similar fate with collapsing motor sticks were Green and one of the Migani brothers, though in both cases, they were fortunate in not having launched the model. Damp air compounds this problem of collapses, of course. Not only is the structure more liable to failure, but the natural tendency to use a more powerful motor in the conditions aggravates the situation. The usual effect is 'splat', though I believe that Ron was lucky and managed to salvage quite a bit.

The USA were still enjoying mixed fortunes. Richmond, who was launching his model at a very steep angle and not power stalling, misjudged the torque and only reached 50 feet, but still managed 20 minutes. Later in the morning, Romak came out to launch. The model was all over the sky in pitch attitude, and must have stalled about half a dozen times, so much so that the flight needed a balloon to straigten out the flight path. But the ship got away eventually. At around the same time, the Felsted/ Parham mafia put another splendid flight together to make an improved time and even the reticent Boyd gave the impression of being cockahoop. Of the leaders, though, the Canadians, Czechs and Poles started to add to the troubles.

This was partly the result of the flying conditions which, apart from a fairly short period in the middle of the day, resulted in, for example, the Canadians wasting their efforts; not one scoring flight coming from the second day's flying. The Czechs and Poles improved but one flight each, and in the case of the latter, this best time for Czechowski was only 27.23. Some of the lower-scoring teams however were using the day to improve their standing. West Germany, Finland, Sweden, Italy and Japan all improved, as did the Netherlands, though in their case a downpour later in the day produced the fairly common Cardington thermal. So Edward Liem's last flight employed the lift, as did Sven-Olof Linden and Rene Butti.

But now we must revert to those at the top of the table, so, meanwhile, back in the States... Romak is still in the air and staring at the ceiling. Surely it can't be that same flight we saw earlier; it was the same time-keepers, and it was! Everyone could see that it was a remarkable time, but few expected the result: 39.22. Gasps all round, applause, but a slight feeling of "lucky" after that start. Still, it's the stopwatch that counts, and with his previous best flight, the first of the previous day, with 34 minutes, the US had its tail up.

When Bud came to make his second flight of the second day, naturally there was much interest. This time there were no twitches and it became obvious that the first flight stalls were a direct result of stirred-up air. In fact, throughout the competition there were far too many people

in the Cardington flying area. Since each team has a competitor, an assistant and the manager, plus two timekeepers milling around one model, it's busy enough as it is. Unfortunately, and inspite of strongly-worded warnings beforehand, there were considerable groups littering the floor throughout the event, yet not much was done to move them. Possibly the effect was minimal, but I doubt it, particularly in view of Romak's first flight. This launch time though, the Americans - very sensibly in the circumstances - got things under total control for themselves and launched Bud's fifth flight in really calm air in a quieter part of the shed. Although drifting about a bit, the model stayed reasonably safe throughout its flight and produced the startling but totally convincing time of 39.36. Naturally, Bud didn't bother with his last flight option since by this time, with conditions going peculiar, someone needed to break 42 minutes to get within striking distance of the individual championship. Clearly, this was highly unlikely, if not downright impossible.

Elsewhere, the Czechs were trying everything they knew, but failing to come up with the time. In their fifth round officials, they had all three hang or catch in some way - their luck had definitely run out. It was so with the Canadians. Conditions got steadily worse with a resumption of rain outside (but not before Felsted had ridden the warm air for a sixth flight of 35.45!); they could only get them in the roof or the side; if they were safe, they didn't make the time. Best duration for them that day was de Mello's 29.34 and to rub salt in the wound, MacGillivray's last chance hit the roof girders and broke the model, which returned earthwards in a power dive - catching Siebenmann's model in the process when about 50 feet up. Oh, calamity!

Six o'clock came, with the slight altercation over finishing time, and it was all over for another two(?) years. For the first time in a long while, the western world did a pretty thorough job of cleaning up the top places. Of the medals, only Poland's Ciapala was outside the Canada/UK/USA group. Maybe this resulted in the very subdued nature of the final dinner and prizegiving, though everyone seemed pleased and impressed by the American wins. How about clubbing together for some speech script-writers? That might be a first step in a better direction.

Results

Individual event best two flights from six

1	P Romak	USA	34.54	29.23	32.48	39.22	39.36	-	= 78.58
2	E Ciapala	PL	35.45	36.18	30.19	0.46	29.32	2.48	= 72.03
3	L Barr	GB	34.30	36.54	17.44	32.05	13.45	11.03	= 71.24
4	J Blount	GB	25.25	35.42	34.05	18.05	34.44	24.58	= 70.26
5	M Thomas	CDN	32.19	35.32	33.18	23.14	28.20	27.51	= 68.50
6	K Rybecki	CZ	34.35	33.39	31.22	34.08	7.17	15.49	= 68.43
7	R Green	GB	33.10	34.33	33.06	30.12	33.53	18.49	= 68.26
8	B Servaites	USA	34.37	14.27	10.15	32.34	23.48	33.41	= 68.18
9	J Richmond	USA	9.37	31.32	36.29	20.53	31.41	17.28	= 68.10
10	A de Mello	CDN	33.22	34.43	11.12	29.34	4.30	28.51	= 68.05
11	B Felsted	AUS	27.25	31.47	31.37	32.18	20.23	35.45	= 68.03
12	J Kalina	CZ	32.45	33.34	7.25	32.42	9.33	23.17	= 66.19
13	T Strasberger	JU	27.30	23.34	29.28	29.21	36.51	-	= 66.19
14	J MacGillivray	CDN	29.50	36.06	29.02	26.20	12.10	6.27	= 65.56
15	V Kmoch	JU	26.28	30.31	34.58	26.03	29.39	19.41	= 65.29
16	E Chlubny	CZ	28.57	36.04	24.28	28.46	11.39	-	= 65.01
17	R Butti	CH	23.25	29.40	22.33	5.40	34.29	14.15	= 64.09
18	W Wetzel	BRD	30.04	31.01	18.39	32.17	13.32	-	= 63.33
19	L Gabrijel	JU	26.34	33.41	13.00	1.12	1.28	29.22	= 63.03
20	S Kujawa	PL	29.02	32.45	16.56	8.29	28.26	5.15	= 61.47
21	E Liem	NL	26.03	8.55	25.05	-	22.53	34.12	= 60.15
22	S Pontan	S	17.07	19.14	28.09	11.32	20.23	31.35	= 59.44
23	Y Banba	J	28.48	29.26	30.14	21.55	29.20	14.08	= 59.40

results, continued

24	P Migani	I	26.14	7.35	33.15	25.49	8.30	13.46	= 59.29
25	F Migani	I	24.38	19.49	28.22	30.01	7.30	18.30	= 58.23
26	D Siebenmann	CH	26.20	29.55	27.03	26.31	27.46	28.14	= 58.09
27	C Cotugno	I	28.53	29.10	24.54	16.15	22.01	7.17	= 58.03
28	R Czechowski	PL	10.05	30.24	8.45	23.51	8.51	27.23	= 57.47
29	C Wolthoorn	NL	25.54	26.42	11.38	28.39	22.36	26.19	= 55.21
30	K Vogler	BRD	17.25	28.25	15.14	23.33	26.19	17.32	= 54.44
31	P Nore	SF	27.42	19.22	17.52	20.25	25.47	3.42	= 53.29
32	H Enomoto	J	22.40	25.43	22.03	24.01	4.27	14.45	= 49.44
33	H Raulio	SF	22.35	20.53	24.43	20.31	5.23	4.29	= 47.18
34	K Nottelmann	BRD	21.36	18.39	19.40	19.31	25.33	5.47	= 47.09
35	S-O Linden	S	12.26	1.38	7.20	12.45	34.06	5.17	= 46.51
36	H Odagiri	J	20.39	22.29	-	19.04	23.10	15.05	= 45.39
37	H Erofejeff	SF	18.42	19.19	21.08	23.23	18.42	0.16	= 44.31
38	W Beekmeyer	NL	16.21	21.56	9.10	19.54	9.24	3.01	= 41.50
39	P Sodersten	S	16.36	17.34	21.45	18.47	15.13	-	= 40.32
40	G Cognet	F	14.03	16.07	17.39	7.41	19.38	1.07	= 37.17
41	W Heise	CH	14.58	13.37	16.39	1.15	0.53	14.21	= 31.37

Team results

1	United States	USA	215.26
2	Great Britain	GB	210.16
3	Canada	CDN	202.51
4	Czechoslovakia	CZ	200.03
5	Jugoslavia	JU	194.51
6	Poland	PL	191.37
7	Italy	I	175.55
8	German Fed. Rep.	BRD	165.26
9	Netherlands	NL	157.26
10	Japan	J	155.03
11	Switzerland	CH	153.55
12	Sweden	S	147.07
13	Finland	SF	145.18
14	Australia	AUS	68.03
15	France	F	37.17

Ernie Kopecky Trophy for the best single individual flight: P 'Bud' Romak.

EUROPEAN POWER CHAMPIONSHIPS, JUGOSLAVIA

Eleven countries competed this year, and all had teams of three. The weather was good, and the countryside was green! unlike that at home. Even though the engine run was limited to seven seconds, as per the new rule, it will be noted that three contestants maxed out in the seven rounds.

Results

1	A Denkin	BG								1260 + 188
2	G Barbarella	I								1260 + 183
3	W Kraus	A								1260 + 137
4	O Velunsek	JU	180	158	180	180	180	180	180	= 1238
5	U Schaller	CH	180	180	180	180	180	157	180	= 1237
6	S Reda	BRD	180	180	180	180	145	180	180	= 1225
7	R Friedrich	BRD	180	180	180	180	142	180	180	= 1222
	J Szecsenyi	H	180	180	142	180	180	180	180	= 1222
9	K Engelhardt	DDR	180	137	180	180	180	180	180	= 1217

Team results

1	German Fed. Rep.	BRD	3576 seconds
2	Hungary	H	3534
3	Jugoslavia	JU	3479
4	Czechoslovakia	CZ	3444

LUCKY JIM, F1D by Mike Thomas

As noted in the World Champs report, Lucky Jim helped the Canadian team to their Bronze Medal in Cardington, and provided Mike with 5 place in the individual competition. This attractive ship might well be described as the norm for this year, with its offset wing posts, blunt elliptical wing tips, equally pitched centre panel ribs, short nose and fin atop the tailplane. The symmetrically distributed prop is of relatively low pitch, but obviously the torque is soaked up by the diameter being 20½ inches. We hope to publish more details later.

EUROPEAN CHAMPIONSHIPS, F1A and B, 1976 11th & 12th September, Homburg

Report by Ian Kaynes

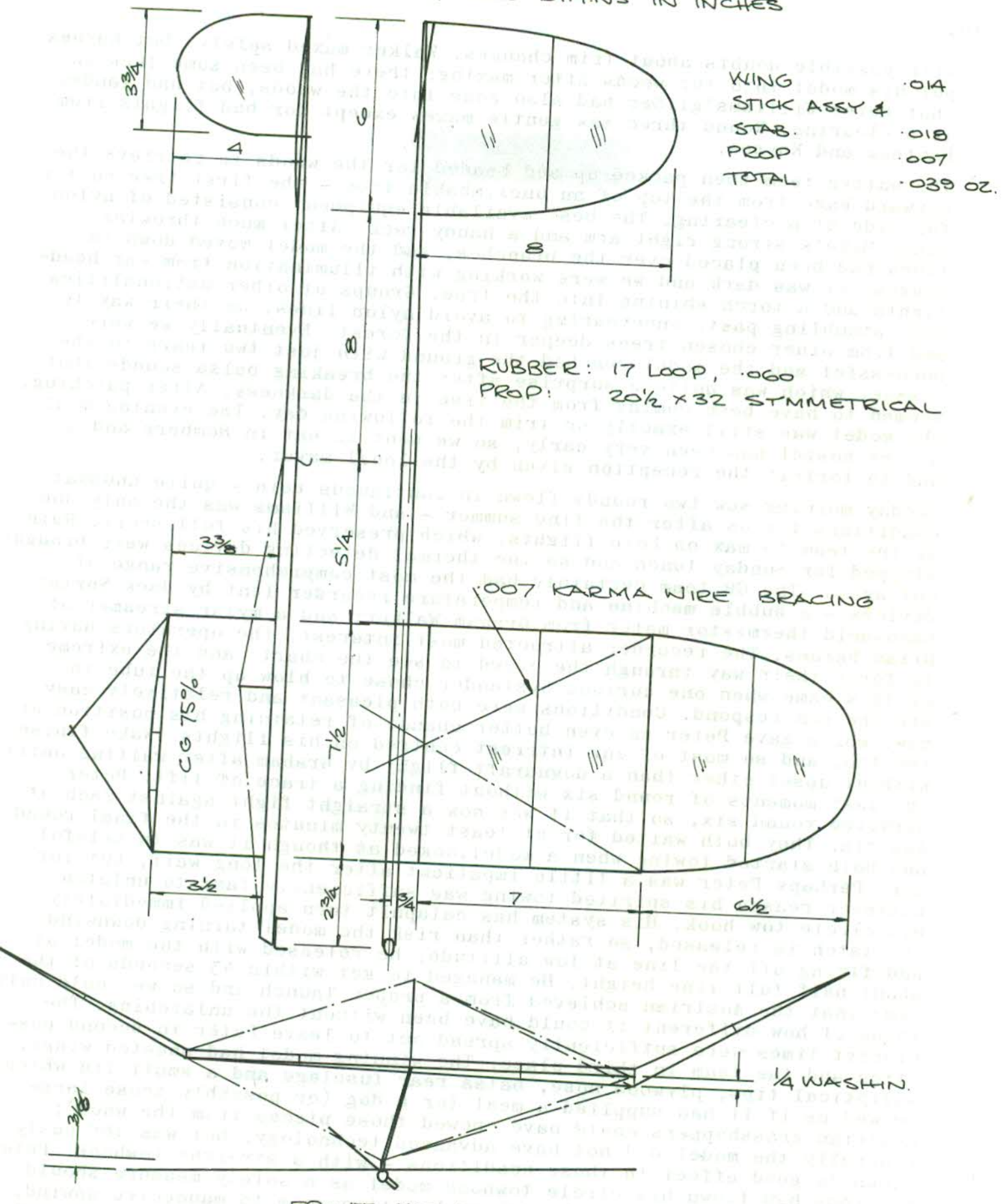
To set the scene for new readers, I will explain that the European Championships constitute two separate events; the F1C Champs being flown in Jugoslavia during July, as reported on the previous page, and the events for F1A and F1B on some farm fields near Homberg in West Germany. Without delving down into the details of the continued saga of the British team to be sent to Germany, suffice to say that the glider team emerged as Mike Fantham, Peter Williams and Brian Baines, while the Wake team remained Bob Wells, Graham Walker and Ian Kaynes (the latter also taking some of the team manager duties). Thus I must apologise for having written another uninformative report - like the Pierre Trebod one - since there was no spare time to see other models or techniques in detail.

The British party reached Homburg on Friday evening later and more tired than anticipated. The organisers had previously used one of two hostels in the town, but this year the increased attendance required both of them to be used. This gave sufficient room for supporters to join in the official accomodation; the youth hostel had been modernised since my last visit and made for a quite acceptable stay. A total of eighteen teams had arrived. These included Israel (Europe?) and a second, rather unofficial Italian team flying for Sardinia. There was strong representation from those East European countries which had chosen to attend, while some countries were natably absent, such as Poland, Czechoslovakia, Denmark and only one flyer from France attended. A Power contest which was also run has Open International status, but it had so few entries that it was hardly noticed to be happening, obviously reflecting the quality of the flying site.

The contest was scheduled to start after 'lunch' (soup that had properties bettering most of the five-minute epoxies) on Saturday. Three rounds were to be flown that afternoon, subdivided into 45 minutes glider and 45 minutes for Wakefield and Power together, and so the morning was free for trimming and practice. Those of the British team at Homberg for the first time thought that the 'field' fulfilled the disparaging descriptions that they had heard. On this occasion, the wind was blowing from the hills/forest/autobahn/railway side, towards the road and another forest, between two villages; to look on the bright side, the models would not go anywhere near the US Army camp or the swamp area. A local rule was introduced that anyone hitting a power cable or pylon could claim a re-flight - no mention of the result of towing a glider into the cables that were about 150 metres upwind of the launch poles.

At the start of the contest the wind was taking models to the edge of the woods in about three minutes, there was some sun (in contrast to continuous rain on the previous day) and the thermals were sometimes breaking up quickly. The British team had decided to draw for flying order and this was adhered to throughout the competition. The glider team all maxed in round one, but none of the Wake team managed a max. After promising climbs, Wells came down rapidly and Kaynes did the same after being thrown out of the lift; Walker waited for some time, but found nothing. Baines had a flight of less than two minutes in round two,

SCALE 1:4 ALL DIM.NS IN INCHES



WING	·014
STICK ASSY & STAB.	·018
PROP	·007
TOTAL	·039 oz.

RUBBER: 17 LOOP, ·060
PROP: 20½ × 32 STMMETRICAL

FRONT VIEW

'LUCKY JIM' F.1.D. by Mike Thomas. Canada

with possible doubts about trim changes. Walker maxed safely, but Kaynes put his model into the woods after maxing; there had been some luck in that Peter Williams'glider had also gone into the woods, but had landed in a clearing. Round three saw gentle maxes except for bad flights from Fantham and Kaynes.

The entire team then packed up and headed for the woods to retrieve the wayward Wake from the top of an unclimbable tree - the first tree on the far side of a clearing. The best available equipment consisted of nylon line, Mike's strong right arm and a handy rock. After much throwing, lines had been placed over the branches, and the model moved down in stages. It was dark and we were working with illumination from car headlights and a torch shining into the tree. Groups of other nationalities kept stumbling past, endevouring to avoid nylon lines, on their way to and from other chosen trees deeper in the forest. Eventually we were successful and the model reached the ground with just two tears in the tissue, which was quite a surprise after the breaking balsa sounds that seemed to have been coming from the tree in the darkness. After patching, the model was still exactly on trim the following day. The evening meal at the hostel had been very early, so we went to eat in Homberg and so had to forfeit the reception given by the local mayor.

Sunday morning saw two rounds flown in continuous rain - quite unusual conditions for us after the fine summer - and Williams was the only one of the team to max on both flights, which preserved his full score. Rain stopped for Sunday lunch and so the thermal detecting devices were brought out again. The GB team certainly had the most comprehensive range of devices - a bubble machine and temperature recorder lent by Jack North; hand-held thermistor meter from Graham Walker; and a mylar streamer of Brian Baines. The recorder attracted most interest, the operators having to force their way through the crowd to see the chart and the extreme of this came when one curious bystander chose to blow up the tube to see the pen respond. Conditions were both pleasant and relatively easy now, which gave Peter an even better chance of retaining his position at the top, and so most of our interest centred on his flights. Wake finished without upset other than a downdraft flight by Graham after waiting until the last moments of round six without finding a trace of lift. Peter survived round six, so that it was now a straight fight against Zach of Austria. They both waited for at least twenty minutes in the final round and both started towing when a modellooked as though it was in helpful air. Perhaps Peter was a little impatient after the long wait, but for whatever reason his spirited towing was sufficiently fast to unlatch his circle tow hook. His system has catapult turn applied immediately the latch is released, so rather than risk the model turning downwind and flying off the line at low altitude, he released with the model at about half full line height. He managed to get within 43 seconds of the time that the Austrian achieved from a proper launch and so we could only think of how different it could have been without the unlatching. The highest times were sufficiently spread out to leave Peter in second position and the team in third place. The winning model had sheeted wings, wlliptical tips, plywood nose, balsa rear fuselage and a small fin which looked as if it had supplied a meal for a dog (or possibly those large Austrian grasshoppers could have chewed those pieces from the wood); generally the model did not have advanced technology, but was obviously flown to good effect in those conditions - with a straight towhook. Peter Williams had flown his circle towhook model as a safety measure should there have been a calm patch with such little room to manoeuvre upwind, but in the event he had not needed to circle once. Third place Kraus flew a sheeted model which has been seen at Pierre Trebod, with his name in large letters under the wing. It has a shortish moment arm and the trailing edge of the tailplane overhangs the rear of the fuselage by about 40 mm. I must admit to not having seen the Italian Wakefield winner (can one of our readers in Italy supply details??). The flyers I noticed the

most were the East Germans, who were on the pole next to ours. With VP props on some models, the initial climb looked somewhat slow in a deviating pattern, but total height gained was usually impressive. Graham Walker boasted of having beaten Oschatz in the same air on one flight.

That evening, meals were taken at the hostels and then everyone met up at a separate hall for the prize-giving. This was notable for commendably short little speeches and ceremony, followed by a sociable evening with typical German music and a chance to mix with the other modellers (contrasting with the dinner after the Indoor World Champs). The East Germans were obviously enjoying themselves with the local 'talent', but despite success in other areas, even Brian could not break that particular circle.

Breakfast at 7.30 on the Monday morning came very quickly and we were then relieved to have a pleasant, easy drive back to the Channel port. Apart from the beer and slivovitz, most of the British party had been feeling a little poorly during the hectic weekend and Graham did a good job in dosing them to offset the effects. There was agreement that the group had worked together as an efficient happy team, with everyone putting their all into the exercise - perhaps the total lack of supporters bar one, and the strange position of the English as a minority in terms of language helped to bind the group closer together.

Results

F1A Glider

1	G Zach	A	180	180	180	180	180	180	164	= 1244
2	P Williams	GB	180	180	180	180	180	180	121	= 1201
3	W Kraus	A	180	180	178	99	180	178	180	= 1175
4	G Zojceski	JU	180	180	180	132	177	180	142	= 1171
5	B Leskosek	JU	155	180	155	180	180	180	106	= 1136
6	V Lustig	DDR	180	180	143	180	66	180	180	= 1109
7	A Dolder	CH	180	180	80	172	147	180	118	= 1057
8	H-J Wolf	DDR	180	144	180	59	131	180	180	= 1054
9	S Vinco	I	180	95	162	94	175	180	150	= 1036
10	M Fanthmm	GB	180	180	80	129	179	106	180	= 1034
11	J Müller	BRD	180	78	180	169	95	180	146	= 1028
12	S Nevzat	T	180	138	180	125	119	180	94	= 1016
13	O Ben-David	IL	157	136	180	180	180	180	-	= 1013
14	G Totev	BG	144	180	180	63	180	157	102	= 1006
15	A Vidensek	JU	180	55	165	115	180	180	121	= 996
16	I Sundstedt	S	180	180	180	48	180	107	95	= 970
17	P Lendering	NL	145	180	85	14	180	180	180	= 964
18	I Weiss	IL	77	180	137	86	180	180	114	= 954
19	B Baines	GB	180	100	180	58	180	180	71	= 949
20	A van Eldik	NL	180	65	180	180	30	180	131	= 946
21	A Bucher	CH	170	78	180	-	148	180	180	= 936
22	N Wallertin	S	67	180	170	180	128	119	88	= 932
23	H-W Althoff	BRD	54	180	180	71	165	180	91	= 921
24	W Gerlach	BRD	180	85	61	124	83	180	180	= 893
25	W Haase	DDR	124	180	60	117	145	158	105	= 889
26	N Nikoloz	BG	180	180	73	38	165	180	60	= 876
27	G Verbree	NL	180	112	93	68	56	180	180	= 869
28	H Chmelik	A	180	91	66	103	111	180	113	= 844
29	G Tschuor	CH	96	110	180	112	96	180	67	= 841
30	I Yosipovitch	IL	180	112	113	80	80	180	59	= 804
31	P Vassil	BG	96	151	60	28	180	180	68	= 763
32	S Lundequist	S	153	133	168	62	180	-	16	= 712
	E Vörös	H	180	10	112	-	180	180	50	= 712
34	I Kovacs	H	79	121	117	80	125	141	25	= 688
35	M Ledocq	B	71	65	158	76	95	155	50	= 670
36	G Stranieri	I	96	103	89	111	63	71	95	= 628
37	I Aslan	T	45	180	43	39	75	107	75	= 564

results, continued

38	J Leleux	F	40	-	74	75	168	150	51	= 558
39	K Kösegil	T	60	56	112	27	98	33	92	= 478
40	L Fülöp	H	57	32	125	63	92	55	46	= 470
41	V Lensi	I	137	106	180	-	-	-	-	= 423
42	D Demeure	B	180	180	59	-	-	-	-	= 419
no of maxes			22	18	15	7	14	26	8	
no of full houses				10	4	2	2	2	-	

F1B Wakefield

1	R Artioli	I	125	180	180	176	170	180	180	= 1191
2	B Söderström	S	180	180	122	174	160	180	180	= 1176
3	L Stoianov	BG	180	180	180	180	158	107	175	= 1160
4	B Kroon	NL	180	180	178	170	165	159	120	= 1152
5	R Schlesinger	BRD	180	180	180	174	164	122	140	= 1140
6	E Balarini	I	157	130	180	180	132	180	180	= 1139
7	M Gialanella	I	154	180	104	180	180	161	163	= 1122
	A Oschatz	DDR	180	180	168	98	136	180	180	= 1122
9	R Brand	IL	141	180	180	108	143	180	180	= 1112
10	E Mielitz	DDR	180	90	180	179	113	180	180	= 1102
	A Wells	GB	146	134	180	102	180	180	180	= 1102
12	H van Hoorn	NL	180	131	152	180	118	180	160	= 1101
13	E Sebahattin	T	134	147	120	158	180	180	180	= 1099
14	M Kapetanovic	JU	180	153	172	112	120	180	180	= 1097
15	J Löffler	DDR	180	129	91	156	180	180	180	= 1096
16	H Zachelmel	A	180	71	164	119	180	180	180	= 1074
17	A Busch	BRD	153	180	122	180	63	180	180	= 1058
18	P-T Skjulzstad	N	180	127	166	111	180	139	151	= 1054
19	L Purgai	H	180	180	125	102	157	180	114	= 1038
20	J Zetterdahl	S	180	180	94	151	163	132	135	= 1035
21	D Siebenmann	CH	95	180	180	100	119	180	180	= 1034
22	A Haagen	A	155	180	137	100	101	180	177	= 1030
23	W Eggimann	CH	180	180	180	56	102	148	172	= 1018
24	A Donde	IL	137	180	180	78	82	180	180	= 1017
25	G Walker	GB	98	180	180	103	180	86	180	= 1007
26	K Leissner	BRD	82	180	180	76	122	180	180	= 1000
	A Sanavio	I	114	92	97	157	180	180	180	= 1000
	K Andersson	S	84	180	163	91	145	170	167	= 1000
29	D Pecek	JU	105	180	117	104	180	121	180	= 987
30	I Kaynes	GB	116	180	118	90	107	180	180	= 971
31	A Graux	B	180	180	120	111	126	68	180	= 965
32	A Hakensson	S	180	118	157	106	42	180	177	= 960
33	K Jusufbasic	JU	72	63	180	167	169	127	175	= 953
34	M Bülent	T	180	88	98	115	111	180	180	= 952
35	A Borchia	Sard	180	118	96	38	170	180	166	= 948
36	E Reitterer	A	137	180	179	173	59	47	150	= 925
37	H Reifler	CH	159	121	60	95	123	179	180	= 917
38	S-T Voltchev	BG	98	180	100	78	164	180	95	= 895
39	A Szeri	H	87	78	130	75	144	180	180	= 874
40	J Pietchev	BG	77	180	91	120	155	70	179	= 872
41	T Akca	T	171	44	121	136	82	180	137	= 871
42	M Varadi	H	116	180	31	79	-	180	130	= 716
43	H van Rij	NL	131	163	63	77	70	95	90	= 689
44	I Ben Itzhak	IL	61	112	106	27	118	106	112	= 642
45	C Ledocq	B	-	107	81	-	-	-	83	= 271
no of maxes			18	25	13	5	9	27	23	
no of full houses				9	3	1	-	-	-	

Team results, F1A

1	Yugoslavia	JU	3303
2	Austria	A	3263
3	Great Britain	GB	3184

Team results, F1B

1	Italy	3330
2	DDR	3320 (East Germany)
3	BRD	3198 (West Germany)

Results, continued

In Wakefield, GB was fifth in the Team event, and in the Open International Power event, which had 12 entries, Bert Huyben of Holland won, dropping his fourth and fifth flights to score 1225 and beat Hans Seelig who made 1187 seconds.

AN OPEN LETTER from David Greaves

My Club (Birmingham) has just won the Keil Trophy for Team Power at the fifth Area Centralised event. The reason they succeded was largely due to Ray Monks leaving some of his gear at the Nationals and he and Stafford Screen travelling to Bassingbourn to collect it and making their flights with the London Area. The outcome: perfect weather at Bassingbourn; lousy over the rest of the country, including Barkston Heath (some fifty miles away) where the rest of the team flew. So what do these Area Centralised contests prove?

I believe the time has come for a complete change in the SMAE Free Flight Contest Calendar. I suggest the Society should run only 6, 2-day Centralised competitions per year; the Areas/Clubs to look to the needs of its own area and run the events that the competitors want.

The two-day comps could include the three FAI events, plus Open. My suggestion would be Open events on the Saturday and a five to seven round FAI competition on the Sunday.

Well, what do you think?

Editorial Comment: we've known for a very long time that Area Centralised events have been something of a joke from the 'justice' angle, but the reason they have been running for so long is answered in part by Dave's own letter: if you want to get results from these events, you've got to be prepared to go where the good weather seems most likely! (Furthest I've heard of anyone travelling was David Hipperson trotting off to Topcliffe to fly in the Gamage! - he still didn't win, did you Dave? But such perseverence is what it takes to win). For example, why did the Birmingham team split between Barkston and Bassingbourn? One would expect the reply to come back, because Barkston was nearer/more convenient. When any suggestion of dropping the Area centralised calendar is mooted, the cries are heard from the far reaches of the land - it'll kill things; we'll have to travel too far to fly and it will discourage those less enthusiastic than the fanatics, etcetera, etcetera. The problem is really insoluable, isn't it?

We've heard from Martin Dilly, just today, that the Army are going to use Bassingbourn for Para-gliding, and that only one club will be allowed to fly on the site, under strict supervision, and in a closely confined area. It would seem therefore, that the Royston Club (non-SMAE) have won the day, and it's goodbye to Bassingbourn for Free Flight. Uck.

HOT TAMALE IV, F1C by 'Buzz' Averill

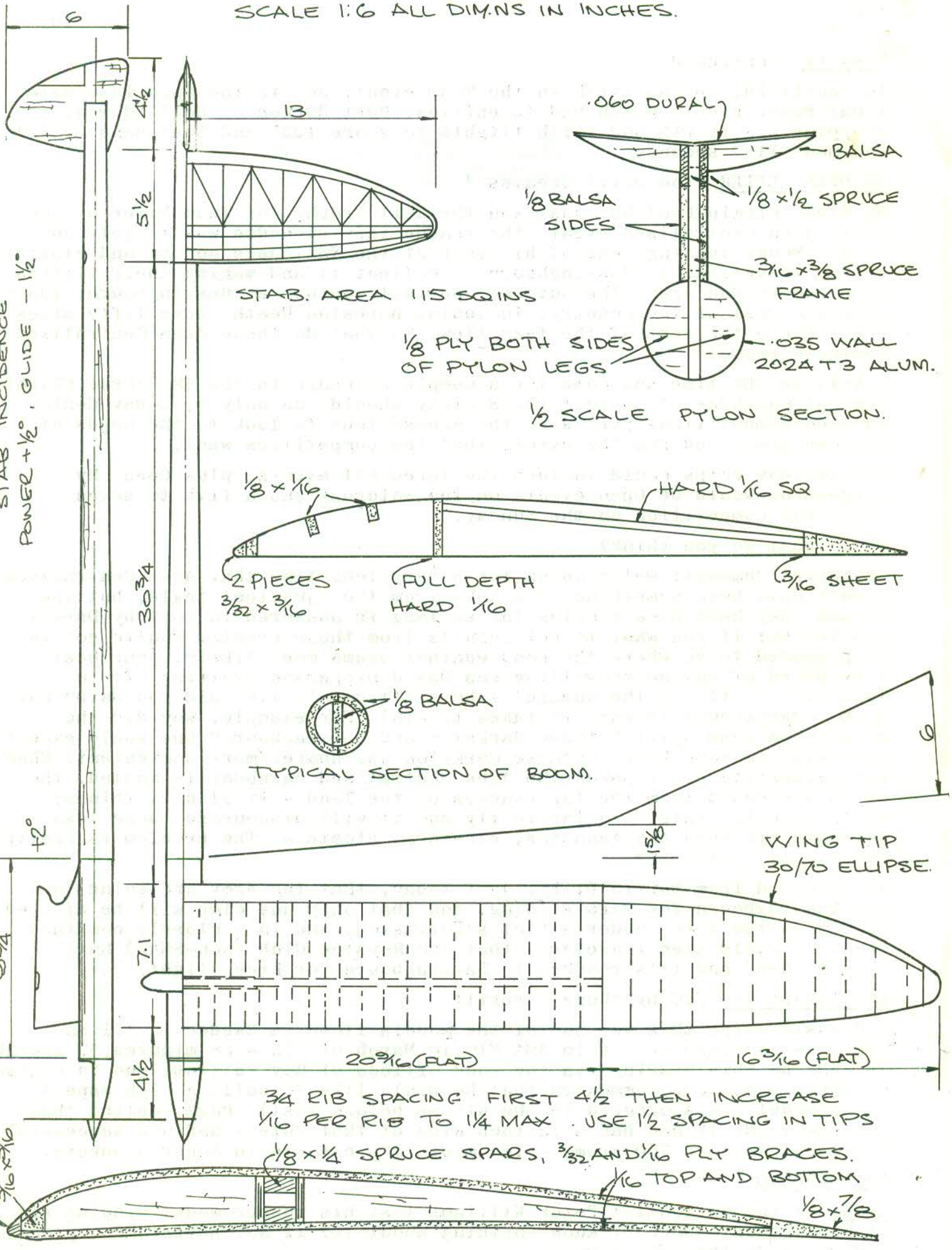
A Classic ship: this was one of the models flown in Sweden in '71 and which set a class record in AMA F1C in March of '72 - 28 minutes,57 seconds. We came by this drawing via the good offices of Roy Collins, who in course of correspondence, commented that he would like to build a high aspect ratio model (this occured in the winter before last). Buzz replied that the Tamale Mk IV had had a 72 inch wing at that date - and was successful. The model weighed 750 grams - the minimum - covered in Super Monokote.

NOTICEBOARD

LOST: at the Nationals: Peter Williams lost his rubber model winding rig at Rissington - anybody know anything about it? If so, advise FFn, please, and we'll do the necessary.

MYLAR STRIP: anyone know a source for this material? Same instructions as above, if you do!

SCALE 1:6 ALL DIM.NS IN INCHES.



'HOT TAMALE' F.1.C. by Buzz Averill.