Diary

26th December Chobham Common	Croydon Christmas Contest. F1G (CdH); F1H (A/1); ½A Power; Open Glider. If wet, in the Cricketers.
23rd January Church Fenton	SMAE Northern Area Winter Rally. O/R, O/G, O/P, vintage, combined mini (4 flights with K-factor, K=0.9 for ½A, 1.0 for P30 and CO2, 1.1 for CDH and A1) Contact John Godden, tel 0532 521002. SMAE members only on airfield.
12th February The Old Bell Greenfield Beds	Third Biggles Annual Dinner. Open eating and drinking. Pre-entry essential to John Bailey, tel Silsoe (0525) 60939 by January 21st. Three rounds : soup/prawn cocktail, chicken/rump steak/scampi, gateaux/cheese. Real ale.

DECEMBER 1982 82/12

FFn

FREE FLIGHT NEWS

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8 Blenheim Court, Farnborough, Hants, England GU14 7DS

Compiled and published by Ian Kaynes, Paul Masterman, Malcolm Wood.

EDITORIAL

At the end of the year it is customary that we say a little about the free flight scene in general and FFn in particular.

The dominant factor to have put the damper on free flight activity must still be the flying field situation, at least in Europe. Although this has often been stated for the UK as affecting domestic contests, it is now also becoming a prime factor on the international level. 1982 was the first year without a Pierre Trebod - nominally it had ceased because of lack of interest from the organisers, but French air force requirements to have the field available as a full-time diversion have prevented any new group from picking up the Marigny contest. Trees encroaching on the flying area played a part in both the European Championships and also the Sezimovo Usti international. Finally, field size was one of the factors causing the USSR to propose new model specifications for flying FAI classes to two minute maximums. Despite this change being defeated and the FAI rules remaining unchanged for another year, something will have to be changed if we are going to be able to continue to fly FF in anything like its current form.

FFn has retained approximately the same number of subscribers as last year. Production has seen problems and delays of the type which crop up with a remarkable regularity but take a surprising variety of forms. We will endeavour to improve our record next year - helped by some new automation - but the main assistance can come from you. Please do send us your news, opinions, articles and plans. The more technical detail the better our readers like it!

The distribution of the 529 readers taking this issue is :

268	UK	2	Austria
58	USA		Brazil
24	Australia		Hungary
	Japan		Norway
21	German Fed Republic		South Africa
15	Netherlands		Zimbabwe
13	Italy	1	Bahrain
	New Zealand		Bulgaria
11	Sweden		Peoples Rep of China
10	France		Cuba
8	Canada		German Dem Republic
	Denmark		Haiti
7	Finland		Luxembourg
5	Spain		Pakistan
4	Argentina		Poland
	Belgium		Portugal
	CSSR		Switzerland
	Israel		USSR
	Yugoslavia		

We look forward to everyone returning for more in 1983. Please send us your subscription form, as published in the October issue, if you have not already done so. In case you have lost the form, we remind you that the rates for 1983 are :

Surface mail £5-50, or US $14 Air mail £9-50, or US $25.

1982 CIAM PLENARY MEETING — NO MAJOR CHANGES ! — Report by Ian Kaynes

Given the large number of controversial proposals for free flight rule changes this was obviously going to be a busy meeting. The hard work is done in the free flight technical meeting and this was attended by four members of the CIAM FF Subcommittee (Peter Allnutt, Pierre Chaussebourg, George Xenakis, Ian Kaynes), delegates representing Sweden, Switzerland, Austria, New Zealand, UK, and observers including Thomas Koster.

Notable points from the technical meeting discussions are as follows. The French idea for restricting flying time and order at the poles in International open events was rejected, but it was advised that the organisers guide for FF events should include advise on ways to arrange timekeeping, with the possibility of involving competitors in helping with the timekeeping. The discussion points were largely in favour of unlimited number of models, but the voting did not represent this with an even balance of votes for and against. After this vote France agreed to change its proposal on number of models - so that it now called for a limit of four models, dropping the fly-off only restriction for the extra model.

The proposed ban on electronic thermal detectors was the subject of a one-sided discussion - being opposed on the grounds that it would introduce a greater lottery element to results, that electronic detectors do not gaurantee a thermal but are just another sensor of atmospheric behaviour, skill in reading detectors is one aspect of the whole skill in understanding the local meteorology, there is little element of unfairness in that electronics is now readily accessible to everyone, a ban would be difficult to enforce, etc. Koster suggested that the time to ban detectors would be when someone appeared with an array of sensors linked to a computer that gave full and precise details of the thermals. It was to my amazement (as chairman) that the voting then had 5 in favour and 5 against. The supporters of the ban included Austria and Switzerland, the delegates of these countries not having said a word in the discussion.

The delegates from USSR and China prefered to attend the control line meeting rather than explain their proposals to the FF meeting. When Sirotkin was persuaded to come to explain the USSR reasons for wanting a two minute maximum he did little more than repeat the brief comments given in the agenda. Basically, these called for the 2 min max on the grounds of visibility of models and the distance covered in 3 minutes. Trial competitions had apparently been held under the proposed rules. There was some agreement that it could be useful to have a maximum shorter than the present one and 2½ minutes was proposed as a balanced alternative, with slightly more potent models allowed. It was generally considered that the small motors and short towlines for F1B and F1A would enforce a more complex approach - for example, a 5m height gain on a catapult launch would be twice as significant on a 25m towline compared to the 50m line. New models would quickly be found necessary to remain competitive and this would further discourage competitors. Sirotkin's only comment on alternatives was to the effect that the USSR had already considered this and had proposed the best rules! The increased weight for power models was opposed on the same grounds plus the factor of increased danger.

The USSR idea for reducing the engine runs down to a minimum of 3 seconds in the fly-off was talked out, noting particularly the difficulty in timing very short runs. Finland withdrew its proposal for a 1.5cc power class. Rather surprisingly, the Chinese proposal of a 5 second run did not meet with great support. Part of the mood in the meeting was that we should not be unduly influenced by the size of the fly-off at the European Champs at Zulpich; the weather there on F1C day was so good that a big fly-off was bound to result. Undoubtedly, in the longer term there is a need to reduce the performance of the class to be more similar to the duration of the maximum. The meeting considered this in the light of CIAM instruction, but the concensus was that changes should not be hustled through without full consideration. It was particularly interesting to note that George Xenakis had brought a proposal to restrict engine inlet size to 3mm diameter, together with changing model specifications to give a constant area irrespective of engine size (nearly identical to the FF Subcommittee proposal of 1981 which had been rejected largely under the pressure of the USA represent--ative at last year's meeting !). Other countries also brought out the same idea for restricting the air intake, with figures predicting a loss of about 6000 rpm; the change would have to be carefully examined and could complicate motor processing. Thomas Koster reported that some team race motors use inserts down to 2.5mm diameter, in the interests of economy, and produce similar power levels to free flight motors. There is obviously room to tune motors to suit the inlet limits, such as sub piston induction of air, and it could be that the only effect of the limit would be to require some rapid retuning of motors.

The technical meeting closed with a post mortem on the European Champs power fly-off. It is essential to get organisers into a frame of mind to act in the interest of the competitors. The troubles of that F1C fly-off could have been avoided if the organisers had agreed to move the flight line so that models did not have to fly over the wood and, later, if they had agreed to postpone the fly-off until the following day so that there was at least adequate visibility.

The decisions of the technical meeting only serve as guidance to the meeting on the following day, when national delegates vote on all agenda items. It usually produces few surprises in the second day decisions but this year it came very close to one such major reversal. When delegates first voted on the thermal detector ban it was passed by 18 votes in favour out of a total of 27 voters. It was pointed out to the President that some countries (eg Ireland and Greece) had voted despite the request for countries not to vote in matters which did not interest them. The vote was repeated with the non-free-flight delegates not now taking part and the votes were now 11 for, 8 against, 5 abstentions. Since decisions require an absolute majority this meant that the ban was rejected as 11 votes represented just under half of the total of 24 voters.

The USSR requested a vote on the principle of reducing the maximum to two minutes. Since they were the only country to support the concept they then withdrew the package of model specification changes.

Other items on the agenda resulted in the following items being passed : The Sporting Code references to World Championships should now apply to both World and Continental championships.

Para 2.6.1 will be amended to allow four models for the free flight classes.

The FAI stickers will have the letters A, B, C replaced by a blank area in which the competitor writes an identifying number for his model..

A team manager assistant is now allowed, to help out in the cases when the team manager needs to be in two places at once and doing things which the rules specify may be carried out only by the team manager.

As a last point, it may be noted that the control line proposal to reduce their engines to 1.5cc was defeated.

FAI CONTEST CALENDAR

A few details were given of the 1983 World Championships but the first published information will not appear until later this month. Ian Kaynes requested that the CIAM president give some explanation of the events surrounding the choice of venue for this event. Briefly, the answer was as follows. After the 1981 meeting had voted in favour of Austria then that country had to withdraw because the military authorities did not allow the use of Weiner Neustadt airfield. Israel had received the second largest vote in 1981 and they required a quick decision if they were to revive their offer. Given approval at the CIAM Bureau meeting this was then put to a postal vote. Only 12 votes were received and they just came out in favour of Israel (about 7 to 5). Given such a narrow margin, a second ballot was held but received no better response. A third ballot with strong pressure to participate produced a 16 to 5 majority in favour of Australia. There is a need to improve these proceedures if the same situation arises again.

No offers were made for running the 1985 Free flight World Champs, but Indoor was better : Japan confirmed its anticipated offer for 1984 and Italy made a tentative offer to run the 1986 event (at the same site as the 1966 Champs).

May 20-22	Genk, Belgium. 3rd international indoor.
June 18-19	Orleans, France. Indoor international, F1D, F1D beginner.
July 22-24	Zeltweg & Wolkartkogel, Austria. Kolibri Pokal, F1A, F1E.
July 23-24	Brno, Czechoslovakia. F1D international.
Aug 20	Mostar, Yugoslavia. Soko Cup, F1A, F1B, F1C.
Aug 20-21	Noize, France. Poitou, F1A (Saturday), F1B, F1C (Sunday).
Aug 20-21	Flemalle, Belgium. Indoor.
Aug 27	Livno, Yugoslavia. Izet Kurtalic, F1A, F1B, F1C.
Sept 3-4	Zulpich, W Germany. Eifel Pokal, F1A, F1B, F1C.
Sept 24-25	Goulburn, Australia. Reg Allamby memorial, F1A, F1B, F1C, F1H.
Sept 28 - Oct 4	Goulburn, NSW, Australia. World Champs F1A, F1B, F1C.
Oct 8-9	Taft, USA. California Invitational, F1A, F1B, F1C.
Oct 8-10	Bordertown, SA, Australia. Bordertown, F1A, F1B, F1C.
Oct 15	Zagreb, Yugoslavia. 19th Kup Republike, F1A, F1B, F1C.
Oct 15-16	Sacramento, USA. 7th Sierra Cup, F1A, F1B, F1C.
Oct 29-30	Bern, Switzerland. Freiflug-Wettbewerb, F1A, F1B, F1C.

F1D by D Pymm

Dave was runner-up at the Slanic World Championships earlier this year, as readers will be aware. We present here details of the model used for the two flights (35:39 and 34:10) with the observations which make the model just that bit special. Stick: additional stiffness is gained by making the 'column' a larger diameter at

its middle and tapering the unit towards each end for reduced weight and where the bending moment is less. The tailplane is set with incidence posts for trim adjustment and the fin, on the starboard side of the tailboom, has its leading edge offset for left turn. The prop size was chosen after careful analysis of the likely conditions (especially temperature) in the mine. It employs the usual Pymm arrangement of helical pitch plus incidence, though the theory is particularly influenced by Theodorsen's ideas. Right thrust proved necessary after initial trials showed that left thrust limited the climb pattern unduly.

In terms of wing area, the model is not large by modern standards, but of course the temperature in the mine did influence many people into believing that extreme models were unlikely to perform well in such an environment. Taking a step back from the detail, Number 15 must rank as a classic approach; once again it proves that the refinement of a sound design brings rewards, while chopping and changing is more likely to bring confusion before results!

1982 ANNUAL WAKEFIELD CONTEST WATTON, Nov 14. Report by Bob Wells.

Weather this year provided a test of endurance and durability for both model and modeller. It was never windy but at the end of the first round the rain started and continued throughout the day without a break.

This was a pity as the attendance was probably the best so far and others were put off coming by the forecast. Entries in the vintage class were about the same in number as before but the selection of models was more diverse and some built specially for the event were not flown due to the weather. F1B entry was also about the same as previous years and the 1953 class increased from 5 to 8 over last year. Although far from unflyable, the conditions were pretty miserable and thanks are due to all those who flew and made the event a success. Thanks are also extended to Mike Woodhouse for negotiating the use of the field and to Dave Oldfield for the P.A. equipment.

This year's event proved one or two things. First, there is quite a large group very keen on flying "Vintage" Wakefields (i.e. pre 1951 rules) and prepared to travel to a contest. Not so many seem keen to try the 1953 rules, although I don't know why as these models are well suited for use in open rubber contests. Secondly, providing the contest is not a "free for all" and is properly run in rounds, it is quite feasible to fly a worthwhile event on a smallish field with high performance models.

Due to the weather, it was not possible to see much of this year's models; I was either spending my time trying to keep things dry or the models were hidden away in cars. One or two caught the eye though, notably Stan Fairless' "McKenzie", Laurie Barr testing a "Vansteed" and a Larsen "Victory" being trimmed, perhaps next year we will see these performing properly.

We intend to run the event again next year and unless some really worthwhile changes can be thought up it will be along the same lines.

One thing that should be bourne in mind is that although the Ted Evans memorial trophy is presented to the winner of the 1953 rule class, this is because these models usually make the highest score. However, if the "Vintage" class score is higher then that will receive the trophy.

I had thought of dropping the 53 class in favour of allowing free lance designs to the pre-51 rules. However, on reflection I do not think this is a good idea. Keeping the pre-51 to vintage means that the models are then eligible for other vintage contests. The 53 class allows those who want to have a go at designing to the rules to do so and the resulting models can be used for open rubber. A model designed specially for the 1951 rules would be practically useless for anything else. Unless I have a flood of good ideas, I therefore propose to leave things as they are for next year.

Pre-1954 Rules for Ted Evans Memorial Trophy 120+120+180 8 flew

1	C Hawke	118 + 120 + 165	= 403
2	I Davitt	120 + 120 + 151	= 391
3	P Michel	120 + 120 + 129	= 369

Chris Hawke flew an O/D model that had a very vintage look, Ian Davitt flew a Dave Hipperson design with "boxy" wing mount for area and a left-hand prop and climb, Pete Michel's model was a stretched Isis called Super Isis.

Vintage 120+120+180 18 flew

1	J Godden	120+120+143	= 383
2	L Burrows	120+120+138	= 378
3	P Ball	120+ 0 +180	= 300
4	P Michel	120+ 83+ 90	= 293
5	M Kemp	120+ 52+ 78	= 250

F1B 120+120+120+180 19 flew

1	R Miller	120+120+120+180=540
2	J Bailey	120+120+120+178=538
3	D Greaves	120+120+120+165=525
4	R Peers	120+120+120+160=520
5	M Woodhouse	94+120+120+175=509

1983 CONTEST NEWS

Elton Drew has sent us details of a special event to be held to celebrate the golden jubilee of the Bristol and West club, of which he is chairman. The flying programme at Woodbury Common is :

Saturday May 14th - 7 to 9 pm "Champagne" fly-off for open rubber, open glider, open power.

Sunday May 15th - Open rubber, open glider, open power, vintage precision (S Bristol rules), All-in FAI. The last event is in 5 rounds and has a special prize of £30 for the highest F1B place.

In addition there will be a barbeque on the Saturday evening, with a bar available for those not winning the Champagne fly-offs. Accomodation will be available in luxurious 6 berth caravans at economical rates - book now with Elton at 2 Downfield Close, Alveston, Bristol BS12 2NJ, tel 0454 415092 - and there are camping facilities; farmhouse B&B can be arranged nearby.

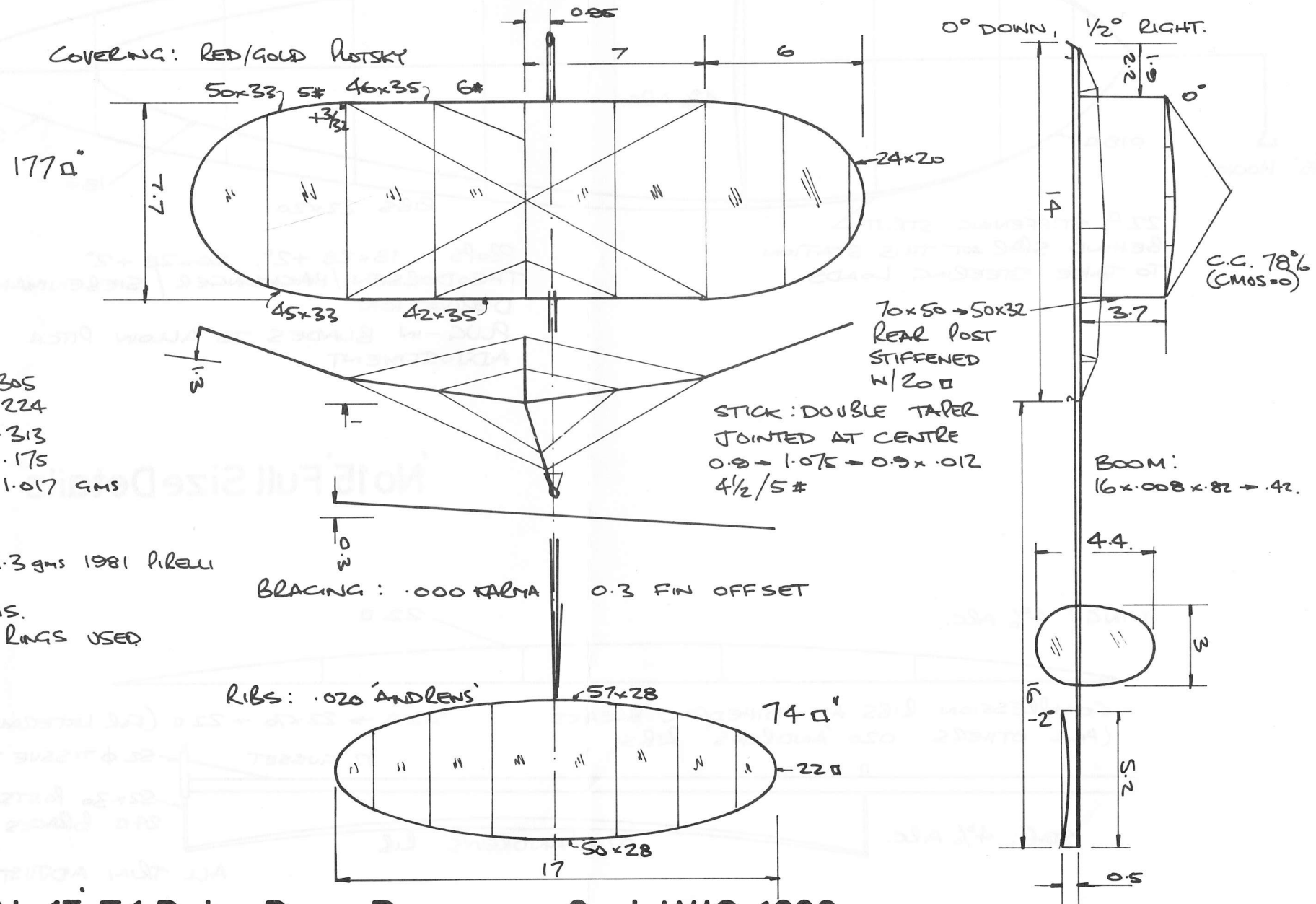
The many tourist attractions of glorious Devon should make this a pleasant social weekend in addition to the flying. There is even a hope that the Cream Tea Garden will be open, well-known to the regulars at Woodbury.

Big Southern Bash 2 : The SMAE Southern Area are to run a 2-day FAI contest at Beaulieu on June 18th and 19th. There will be camping and a barbeque and a champagne fly-off. More details to follow later.

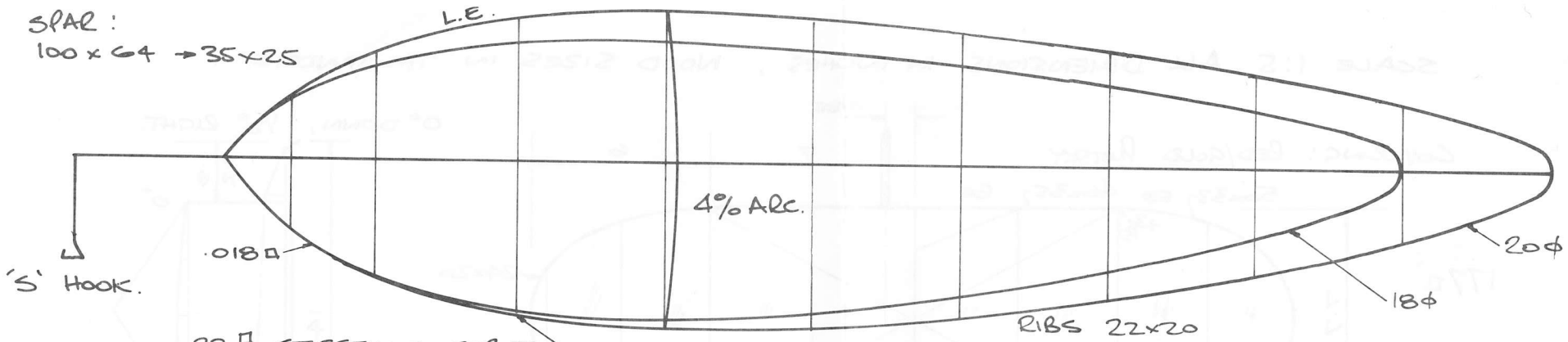
MISSING EZB TIMEKEEPER

John O'Donnell has requested our help in tracing Norman Lane, who timed John's 21 minute EZB flight at Cardington. He is considering

SCALE 1:5, ALL DIMENSIONS IN INCHES, WOOD SIZES IN THOUSANDTHS.

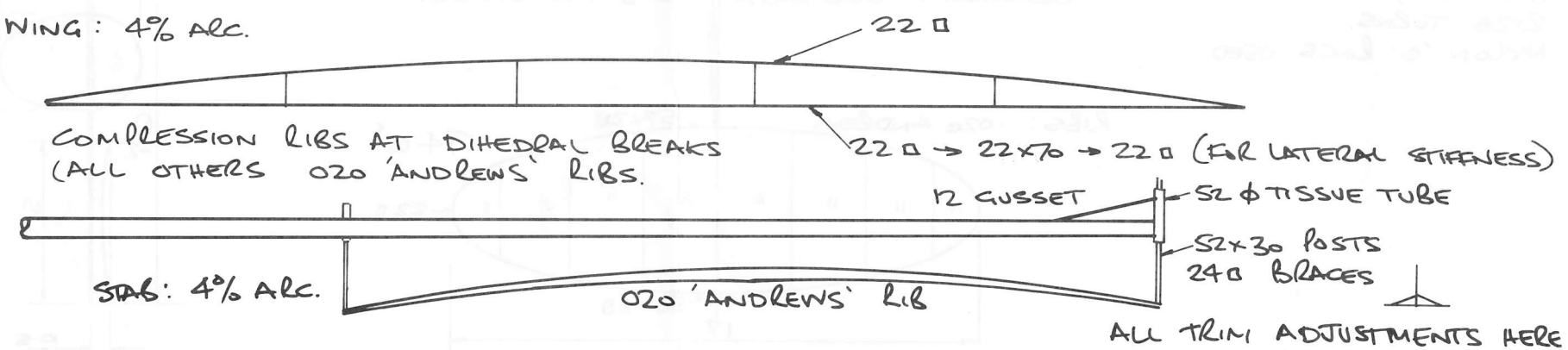


'No 15' F.1.D. by Dave Pymm 2nd W/C 1982.



PROPS : 18x28 +2°, 20x28 +2°
THEODORSEN / HACKLINGER / SIEBENMAN
DERIVATION.
PLUG-IN BLADES TO ALLOW PITCH
ADJUSTMENT.

'No15' Full Size Details



claiming a record for the flight and so needs to contact the timekeeper; Norman is not an FFn subscriber but perhaps one of our readers can put John in touch with him. Contact J O'D at 36 Marina Drive, Marple, Stockport, Cheshire, or phone 061 427 3711.

NATIONAL FREE FLIGHT SOCIETY

Fred Terzian has notified us of changes in the NFFS Plans and Publications distribution. Manny Andrade will now be operating the Plans service and his address is 1602 Encanto Place
Walnut Creek
CA 94598, USA.

Fred Terzian continues to handle the NFFS Publications and you can reach him at 4858 Moorpark Ave
San Jose
CA 95129, USA.

Write to Fred or Manny for details of the range of NFFS items. The NFFS Symposium Reports are available through FFn - if this is more convenient for you - at prices of £6-50 for the 1982 Report and £5-50 for the 1981 one.

NFFS membership and subscriptions are handled by Hal Woods whose address is 707 2nd Street
Davis
CA 95616, USA.

NFFS also requests nominations for 1983 as follows :

NFFS 10 Models of the Year to Jim Wilson
1030 Avenue D
Redondo Beach
CA 90277

Papers for 1983 Symposium Abstracts for proposed papers to James Bennett
324 Helfenstein
St Louis, MO 63119

TEAM FOR AUSTRALIA

Gerald Nocque has sent us the results of the French team selection trials, held in good weather at the beginning of October. The teams are :

F1A Jomarien, Gerard, Harscouet, reserve = Galichet
F1B Neglais, Landeau, Barberis, reserve = Dupuis
F1C Iribarne, Ferrero, Roux, reserve = Braire.

A good selection of well-known names here and there is little doubt that France will actually send a team down-under. The French modelling authorities have arranged a free ride with the French Air Force !

NOTICEBOARD

Bulk Purchasing : Our announcement of new prices for the FAI Model Supplies 1/8" (3mm) rubber was rather over pessimistic. The prices should be £9-50 inland or £10-50 overseas. As usual for FFn Bulk Purchasing, please send your orders to David Stapleton at 21 Ravensbourne Drive, Chelmsford, Essex; please make cheques payable to FREE FLIGHT NEWS. A full list of the bulk purchasing range was given in the September issue of FFn.

Ronytube Supplies: Ron Pollard has sent us the following list to update readers on the current supply situation. The range of glassfibre tubes has been built up to seven over the past eleven years and now consists of:

A/2 'standard' size, 13.5mm Ø tapering to 5.5mm Ø x 1050mm, 30g £3-50 each
A/2 'Tchop' size, 18.5mm Ø tapering to 10mm Ø x 1050mm, 25g £3-90 each
A/1 'standard' size, 11mm Ø tapering to 3mm Ø x 1000mmm, 20g £2-70 each
A/1 'Lightweight' size, 10mm Ø tapering to 3mm Ø x 915mm, 10g £1-70 each
HLG size, 6mm Ø tapering to 1.5mm Ø x 510mm, 5 g £0-85p each
Wakefield motor tube, 30mm Ø tapering to 28.5mm x 600mm, 30g £3-50 each
R/C Glider/Power size, 22mm tapering to 14.5mm x 1220mm, 66g £5-50 each

As well as all the above, the availability of new materials such as carbon fibre has led to further developments. A small number of 'Tchop' tubes were produced in carbon fibre. For an increase of only 20% in weight, the stiffness was increased many times. However, because of the unidirectional properties of the materials, there was a risk of longitudinal splitting. This seemed to be the time to combine the two materials, so obtaining the stiffness of carbon as well as the durability of glass. A further four tubes, consisting of a composite of glass and between 35 and 50% carbon have been added to the range. These are:

A/2 'standard' as above, weighing 32 grams £6-50 each
A/2 'Tchop' as above, weighing 27 grams £7-20 each
A/1, 10mm Ø tapering to 1.5mm Ø x 1050mm, 11g £3-20 each
HLG as above, weighing 5.5g £1-40 each.

Postage and packing, add £1-50 for 915mm or over length tubes for any number; add £0-40p for 915mm or under. These are UK ONLY prices. Please write for a quotation if ordering from overseas. Ron is at:

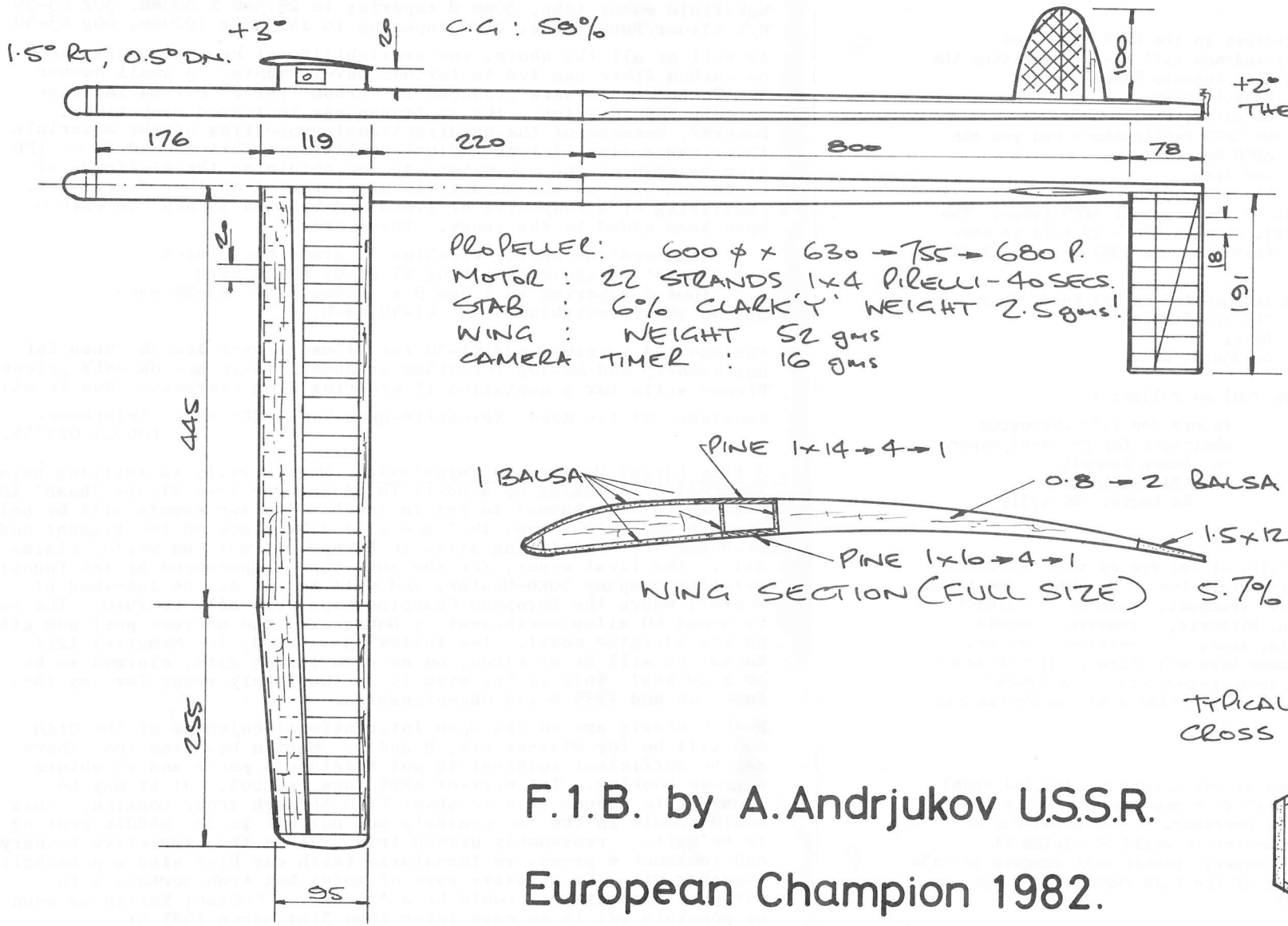
Ronytube, 23 Ivy Road, Newcastle-upon-Tyne, NE6 4PU. Telephone, (0632) 623735.

A Free Flight Holiday in Yugoslavia? Martin Dilly is inviting anyone interested in making up a party to attend the free flight 'bash' in Yugoslavia next August to get in touch. The two events will be held on 20th and 27th August 1983 and will take place on the biggest and probably the best flying sites in Europe, if not the world, claims Dill. The first event, for the SOKO cup is sponsored by the Yugoslav aviation company SOKO-Mostar, and will be run on the lake-bed at Mostar, where the European Championships were held in 1980. The venue is about 60 miles north-west of Dubrovnic, the ancient port and city on the Adriatic coast. The following weekend, the Memorial Izet Kurtalich will be at Livno, on an even larger site, claimed to be 10 x 20 kms! This is believed to be the likely venue for the 1984 European and 1985 World Championships.

Both contests are on the Open International calendar of the CIAM and will be for classes F1A, B and C. Martin believes that there may be sufficient interest to put together a party and so obtain a group booking. The current APEX fare is £203, but it may be possible to reduce this to about £120 through group booking. This would result in the two contests and holiday in the middle proving to be quite a reasonably priced trip. Given the attractive scenary and reasonable prices in Yugoslavia (with car hire also a possibility) together with the relative ease of model box transportation in European aircraft, it could be a 'go-er'... Contact Martin as soon as possible but in no case later than 31st March 1983 at

20 Links Road, West Wickham, Kent, England BR4 0QW

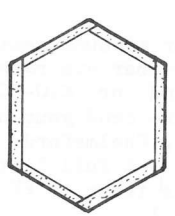
SCALE 1:6 ALL DIMENSIONS IN MILLIMETRES



PROPELLER: 600 ϕ x 630 → 755 → 680 P.
MOTOR : 22 STRANDS 1x4 PIRELLI - 40 SECS.
STAB : 6% CLARK 'Y' WEIGHT 2.5 gms!
WING : WEIGHT 52 gms
CAMERA TIMER : 16 gms

WING SECTION (FULL SIZE) 5.7% THICK

TYPICAL BOOM CROSS SECTION.



F.1.B. by A. Andrjukov U.S.S.R.

European Champion 1982.