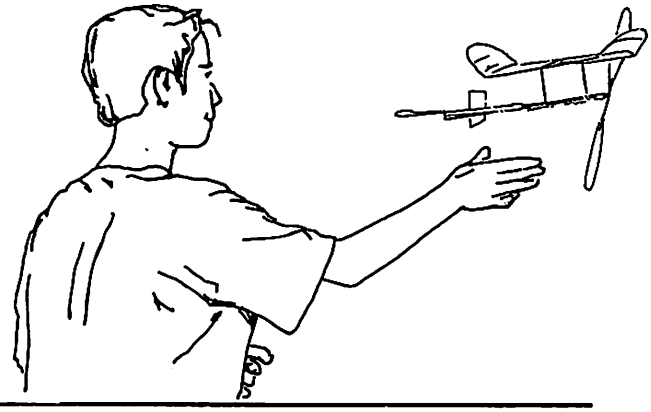
Indoor News



Issue 41 February 1997

DIARY

27 May- 1 June Johnson City USA	**United States Indoor Championships**
21-22 June St Denis en Val France	**15th Orleans Indoor**, F1D, F1D Beginner, F1L. Contact: J. Delcroix, 41 Allee du Coudray, 45160 Olivet, France, tel +33 23863 4957.
7-10 Aug Maurage Belgium	**Indoor International,** All classes. Contact: J.M. Melice, rue Bernier 36, 4200 Maurage, Belgium, tel +32 6467 5742.
14-15 Aug Nagoya Japan	**Nagoya Nuts '97,** Peanut, Pistachio. Proxy entries are welcome. Contact: Kazuhiro Suzuki, 4-94 Kashihara-Cho Kasugai, Aichi 486, Japan.
29-31 Aug Maastricht Netherlands	**Interscale 1997,** F4D, F4E, F4F, Pistachio. Contact: H.F.J. van Leeuwen, Papsouwselaan 180, 2624EE Delft, The Netherlands, tel/fax +31 15 2610972.
30 Sept- 5 Oct Slanic Romania	**European F1D Indoor Championships 1997.** Contact: Federatia Romana de Modelism, Str Vasile Conta no. 2, sector 2, 70139 Bucharest, Romania, tel +40 1211 0160, fax +40 1210 0161.
6-7 Oct Slanic Romania	**Euroindoor F1D.** Contact: see above

POSTAL/PROXY EVENTS

from now till April 30	**FAC Bay State SQDN - Winter Peanut Postal,** Contact: Mike Nassise, 22 Greenfield Street, SO. Easton, MA 02375, USA.
from now till April 30	**Flying Aces Peanut & No-Cal Postal Meet,** Indoor and Outdoor, FAC-GHQ, 3301 Cindy Lane, Eric, Pa. 16506, USA. You may enter as many models as you wish in any of the events. Every time you better a previous time with a particular model send the time in. Contest times also count.
14-15 Aug Nagoya Japan	**Nagoya Nuts '97,** Peanut, Pistachio. Proxy entries are welcome. Contact: see diary.

Rysard Czechowski

From FFN: News has been received from Krakow of the death of Rysard at the untimely age of 54. This occured on 12th November and was due to leukemia.

His achievements in aeromodelling were many but, clearly, his greatest success was in becoming 1974 Indoor World Champion at Lakehurst USA. He also was a skilled engineer and there will be many indoor flyers still using his rubber strippers and torque meters. His qualities extended further. He had a good command of English, a delightful sense of humour and was an example in his hospitality to visiting competitors.

Aeromodelling has lost a gentleman - a rare quality and many will share in the sadness expressed by his wife Irena and his two daughters Magdalena and Grayiana.

Bernard Aslett

Records

58'08 F1D **World Record Cat. IV**
Steve Brown (USA) **Santa Ana, Sept 15, 1996**

Following his superb but unofficial record flight of 63'54 Steve Brown made a successfull attempt to break the Cat. IV world record officially. The conditions on

COLOPHON
Indoor News is published at least four times a year and covers all types of indoor models, from peanuts to microfilm. Texts can be sent in Dutch, English, German and French. Please type your texts on 12,5 cm width. Texts can be sent on floppy disk (3½ or 5¼) in any text format. I can make drawings, if you are no draftsman.

Payment of subscriptions is preferred per eight issues. When paying by Eurocheque, International Postal Money Order or with bank notes no additional bank fees are required. Please add NLG 6,50 for bank fees when paying by Eurogiro or NLG 20,00 with foreign cheques. The Eurogiro account number is 4406860. US readers may pay through Ruesch Int. without extra fees, but cheque has to be in NLG and drawn on the ING Bank.

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the day were not very good and he had to be content with a time of "only" 58'08, still a world record! A second attempt on that day looked to go better but then the model drifted into the catwalks and could only be retrieved with damage to the wing.

Thrust Bearings

by Ray Harlan (USA)

The fantastic stretch of FAI Tan II has led to significantly shorter and wider motors compared to those from Pirelli. The net result is that motors tend to bunch up more when fully wound. This is further aggravated in classes that restrict motorstick length such as Pennyplane and Mini-Stick. With these, you must add a short piece of shrink tubing near the prop hook to prevent the rubber from climbing the hook and jambing against the motorstick, or walking off the hook. As a result, I no longer offer the EZB bearing with 1/8 inch shaft-to-stick clearance. The F1D model with 5/32 inch clearance will be substituted. The difference in weight is equal to a piece of balsa .032x.04x1/4 that would be needed to extend the bearing anyway.

Some people have asked how to adjust these bearings. Let's start with gluing them on the stick. Get a very straight piece of music wire about 2 inches long of the same diameter as the prop shaft. Insert it in the bearing. With the stick upside down, lightly glue the bearing in place, aiming the wire at the rear right side of the stick. This will put just a touch of left thrust in the model which often is enough. When the glue is dry, add a piece of 1/4x1/4 light silkspan over the bearing and around the stick as far as it will go. Double glue it in place. This will keep it from breaking loose under duress.

If thrust adjustments are needed, use two pairs of needle-nose pliers. It helps to have pliers with very narrow jaws. One holds the bearing while the other bends. Remove the prop. For down thrust, hold the bearing near the upper bend at the front and, with the other pair right next to the first, bend the bearing down. If a lot of down thrust is needed, the lower bend may need to be opened to keep the front of the bearing parallel to the prop spar. Also, the rear pigtail may need just a touch to keep the hole edges in line with the prop shaft. Be careful doing this. Don't touch the pigtail legs. Hold the bearing near the upper front bend.

For the side thrust, hold the bearing as before. The second pair of pliers grabs the side of the bearing and twists the front a little sideays. It is easy to get too much! The front of the bearing may need to be straightened to keep it parallel to the prop spar. If your model needs drastic thrust adjustments, you should consider building them in, using a balsa wedge if necessary.

F1D and Pennyplane thrust bearings are available from Ray Harlan at: 15 Happy Hollow Rd., Wayland MA 01778, U.S.A..

Subscription payment

Readers who pay their subscription by cheque (other than Eurocheque) have to add an extra NLG 20,00 per cheque to cover the handling costs which I am charged for cashing these cheques. For US readers there is a way around this problem. You can pay by cheque through Ruesch International Inc.. Ruesch has an own account with my bank (ING Bank) and charges you $3.00 and no costs at my part. Such a cheque should be drawn on the ING Bank and made payable to "Thedo André" and written in NLG. The subscription amount is NLG 33.00 or the equivalent in NLG of USD 20.00. The address of Ruesch International Inc. is: 700 Eleventh Street, NW, Washington, DC 20001-4507, USA. Ruesch has a toll-free telephone number in the USA: 1-800-424-2923.

South Leicester Aero Nutz

There is a new indoor flying group in England: the South Leicester Aero Nutz. On the next pages you will find information about their activities and the type of models they fly. These are mainly small foam scale models and Mark Denham tells the following about it:

All of our planes are made of white 2 mm foam. It has not as good a surface finish as blue foam but it's much easier to build with and lighter. We don't have the static either as we just cut the foam with very a sharp knife rather than sand it. We are just starting to experiment with 0.012" rubber motors and 4" span mono planes and 6" span twin engine designs. Simon is going to try aero towing at very small scale taking off from a table. We are the only folks to aero tow and mid air launch using rubber powered tugs. I have a 4 motor Lancaster 15" wing span, much easier to make than Peter Smart's blue foam one. He and his Norfolk based friends have flown with us at our base in Leicester. Because we are a new group we only have a few fliers and so we have to raise money for our hall fees by selling plans and data sheets. If any folks would like to have any please send cash. Either pounds or other common currency and we will change the money in one go at a bank here in England or bring it back to one of your events in the summer!

The **South Leicester Aero Nutz** indoor flying group are compiling a list of indoor flying venues. The list will be used to help get new indoor fliers established. The idea is one of several aimed at providing support and encouragement to the new indoor lightweight flier. Indoor event organisers are asked to send details of their events to Mark Denham, SLAN, 37, High Leys Drive, Oadby, Leicester LE2 5TL, England. Please provide a correspondence address/phone number, approx. size of hall, fees, times and dates, address of the flight venue, restrictions, rules and the amount of time allocated for unrestricted fun flying.

INDOOR FLYING

Warm, dry, reliable, and our 2mm sheet foam planes are tough.

Less is more !
Build light
Fly slow. ✓

They are also quick and easy to make which means your can have a go at designing your own planes. The foam produces a stressed skin effect when rolled or curved. The only stiffening we use within the fuselage is at the points you hold the plane - the nose and rear tether point. We use fine pitch props. and a huge amount of turns - up to 2,500 ! Props don't free wheel. We use plenty of down thrust and 3 to 5 degrees incidence - see plans.

* Slow on the way up - slow on the way down. *

All of our aircraft have been design and made by ourselves. When you get the hang of it it is not difficult. After that the choice of aircraft, size and colour scheme is entirely up to you. A 7" span mono plane takes about two evenings to design and build, weighs 4 grams - it can't help but fly. Indoor flying is done in sports halls, during the winter season, typically you will pay about £5. Most indoor events are advertised in Aero Modeller.

We have made life easy for you by designing some machines for you to start off with. The Jiglet is a good all rounder. You can test props. on them, tow gliders, they fly well and they are tough. When you are struggling with a more advanced design it's nice to give up and fly your Jiglet for a while - we do this for fun. If you are designing machines from scratch you will have to produce your own cockpits and pilots.
We have some data sheets to help you and help pay for our hall fees.

* Propellers using our own bendy wire technique, any number of blades, pitch or diameter. - £2 * Pilots £1 * Cockpits £2 * twin winder notes for multi's £2.

The aircraft design sheets assume you have the above data sheets and give the prop. dia. and tip angle, bendy wire size etc. etc. Once you have the data sheets you don't need to buy them again.

Our aircraft design sheets are graded -
we suggest you start with a **Jiglet** - they always fly !

Jiglet easy flier, simple square section fuselage, not too fiddley - 10" span. Try a nice colourful paint job. - £2

Mustang 7" span, rolled round fuselage, low wing, needs a cockpit and pilot and a *proper* paint scheme, 4 blade prop. flies nice and slow Fuselage patterns are more complex due to the curved surfaces. £2

Minimoa glider 14" span. Very slow, fun in the living room or could be towed by a scaled down Jiglet ? - £2

Corsair 6" span. Yes that is rather small ! Not difficult to make but requires skill to get it to fly - lots of down / right thrust. - £2

Lancaster 15.5" span. If you can get a 6" Corsair to fly then getting what is really 4 of them flying will be easy. Lots of cockpits and props. Surprisingly strong wing as it has balsa spars unlike the others. - £5

Flying wing easy to make, easy to trim when you know how, flies very well as it is very efficient. 10" span - £2

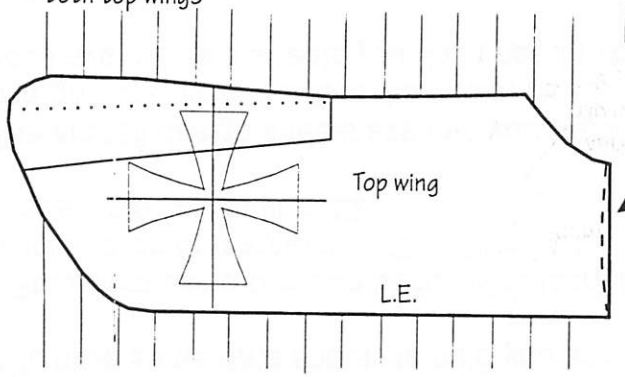
Other plans - B25 Mitchell, DASH 7 airliner, Vilga tug for the Minimoa
We do a news letter too, send a second class stamp for each future news letter you would like.

Cheque : South Leicester Aero Nutz 1 Compton Road Leicester LE3 2AA

SLAN organise fun flying events during the winter season, on Saturday evenings. We don't have competitions, just turn up and let us see you latest design fly. Does it fly well ? Well make a more advanced or difficult one in future. We like to think we are at the cutting edge of development and are keen to see folks have a go at new ideas and developments.

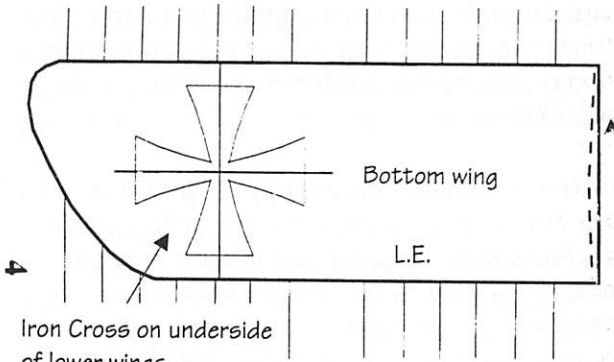
Materials suppliers :
Foam and Bison Orange pack solvent free glue - **Texas Homecare** 2mm thick, white, sheet foam is sold in 3' x 30' long roll as wallpaper insulation and costs £2. Rubber motor strip, motor lube, winders, fine steel wire etc. etc. are from **SAMS Models** The Chapel Sandon, Buntingford, Herts.- send 3 x 1st class stamps and a large SAE for a catalogue. (0.025" rubber motor strip, 15' long costs about £1.50)

Bend trailing egde up along dotted line about 1mm - both top wings



Trim to suit wing

Use these guide lines to draw on the ribs



Trim to suit fuselage & ensure top and bottom wings are same length

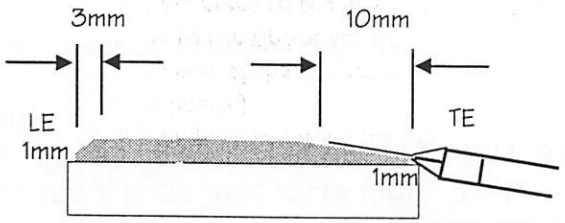
Iron Cross on underside of lower wings.

L.E = Leading edge

Sand down parts using very fine (400) wet and dry - don't press down hard !

Paint parts before assembly using Humbrol Acrylic. Water down to avoid extra weight

All parts made from 2mm white insulation foam unless stated otherwise



Arty SLAN Albatros

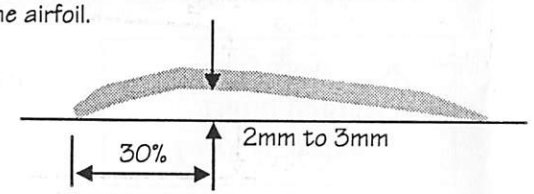
Use a loop of 0.025" SAMS flight rubber 160 mm long. Start with about 1000 revs and build up to about 1300 revs. ©

South Leicester Aero Nutz
1 Compton Road
Leicester England

£3 - helps fund flying in Leicester

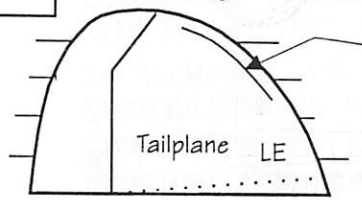
6 1/4" span flying machine

Cut out the wings, fit a new blade and trim the leading and trailing edges and tips as shown bellow. Paint them and then fold in the airfoil.



Under camber detail

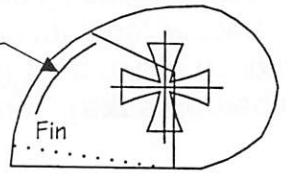
Tailplane is bottle green on top and light blue underside



Trim to suit fuselage

Tail and fin are cut from 2mm thick foam then carve / sand them down to 1mm thick

Tail and fin have red edge all round - top and bottom.

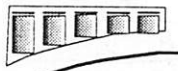


Fin is bottle green

Fuselage is oval shaped



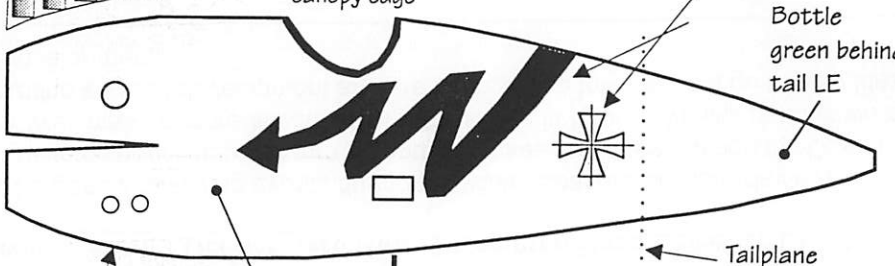
2mm sheet engine



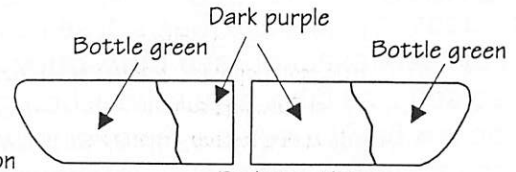
Dark brown canopy edge

Use new blade to cut out template and insignia

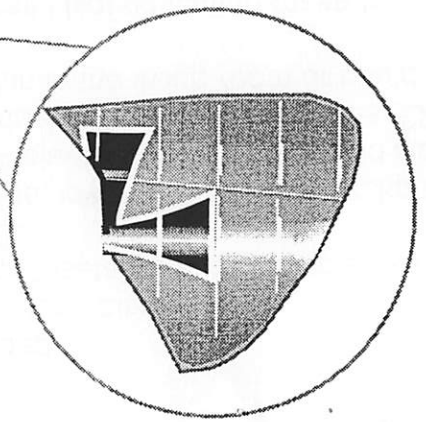
Bottle green behind tail LE



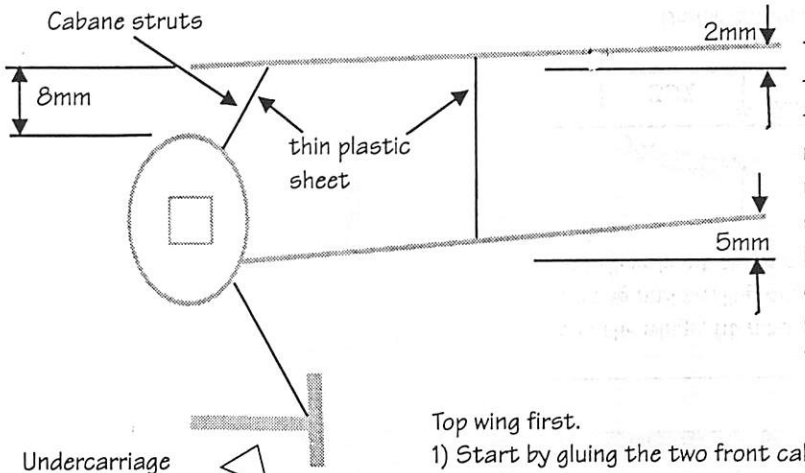
Rear half of fuselage can be sanded down to 1mm



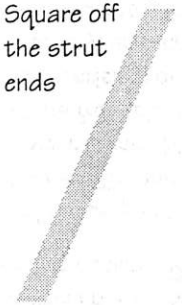
Top and bottom wings are light blue on underside. Iron cross on top of top wing and bottom of bottom wing.

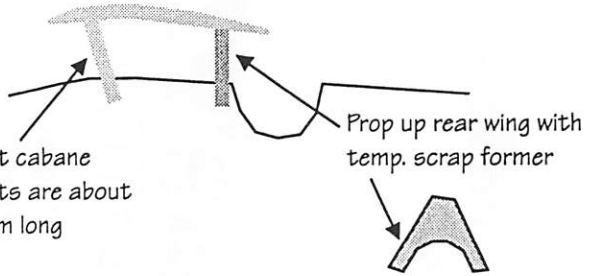


The Albatros paint schemes are colourful and varied. Try and get Flying Colours from your library. Make your first Albatros from plain white foam and get some experience of building and flying, then take your time and do a nice paint job. Try and get a little shine on the wings and pick out the ribs



The most difficult part of the Albatros is getting the top wing glued on. Simon makes a jig while I just eye it up. Start by cutting some strips of thin plastic sheet into 2mm wide strips - best done with a new blade. Grade them into groups of the same width and then paint them same colour grey as the fuselage.





Undercarriage member is'made from 2mm sheet foam, 6mm wide. Carve it into an airfoil section and try to get it at 2 degrees incidence.

Top wing first.

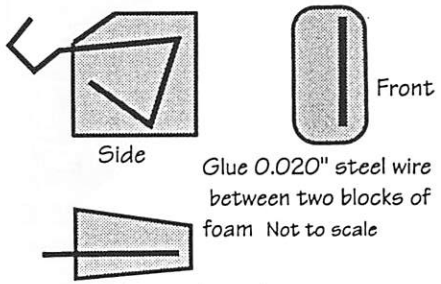
1) Start by gluing the two front cabane struts onto the fuselage. Leave until the glue is completely dried hard (6 hours)

2) Prop up the rear of the wing with some scrap foam to get the correct incidence. Remove the wing and add some glue to the tips of the cabane struts, place the wing on the struts - unsure the wing is central, at 90 degrees to the fuselage and the dihedrai is the same on both sides - simple ! Leave to dry for about 2 hours. 3) Remove the rear wing packing and add the two rear cabane struts, unsure the incidence is abcut 3 degrees.

4) Add the lower wings, trim the fuselage joint end to ensure they are the same length as the top wing and fit they fuselage nicely.

5) Add the wing joining struts

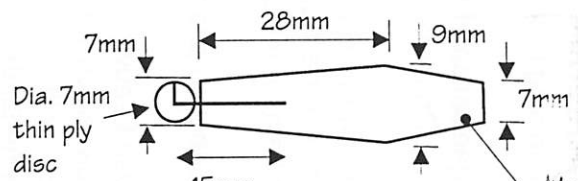
Note off set to keep rubber in line with prop shaft's right thrust



Typical tether point

5

Tips - Use Orange pack Bison glue. Use a toothpick to apply the glue, use a bent paper clip to gently push the struts into the correct place. when the strut is in the correct position it may not have much glue holding it together. Add some extra glue after it has all been left overnight to dry rock hard. When you glue the wing joining struts onto the wings don't go too close to the leading and trailing edge of the wing so you can shape the wing after assembly. Use tweezers to pick up and position the struts

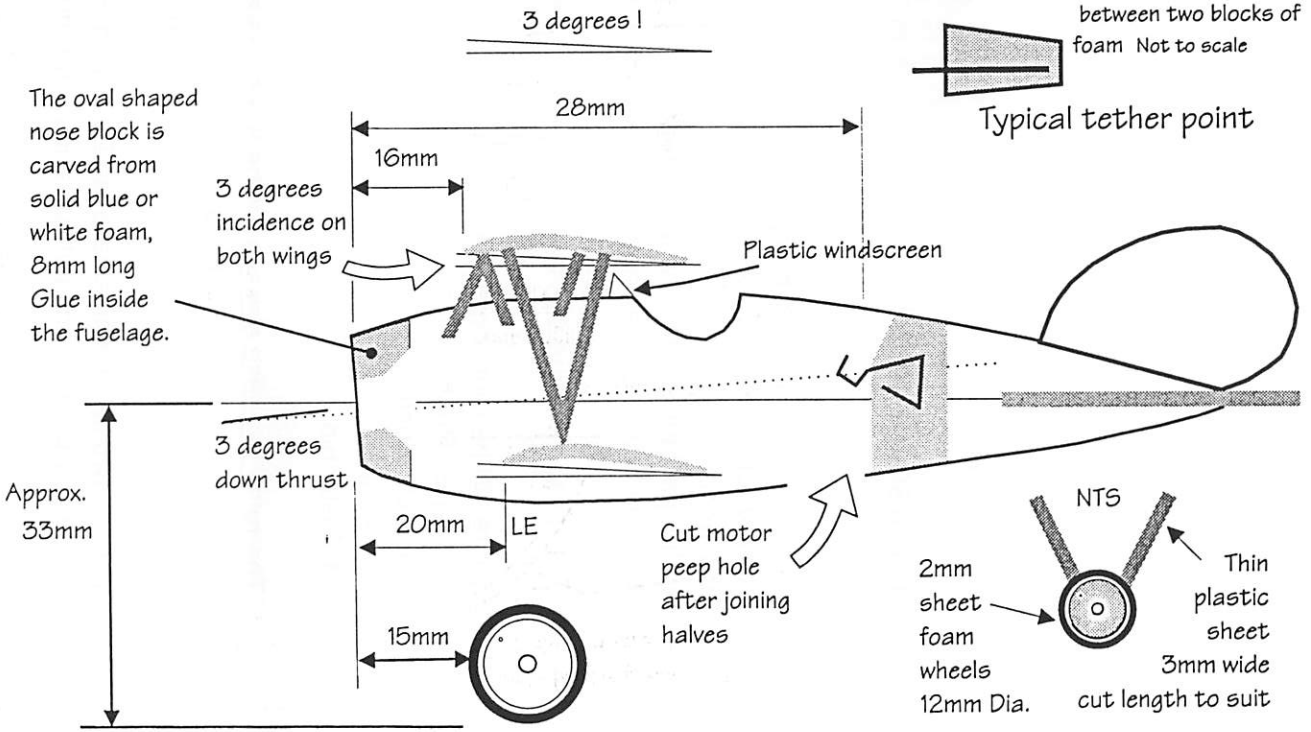


Cut blades from SAMS 0.015" indoor quality sheet balsa (C grain 5.5 lbs)

Dia. 0.012" blade wire (SAMS)

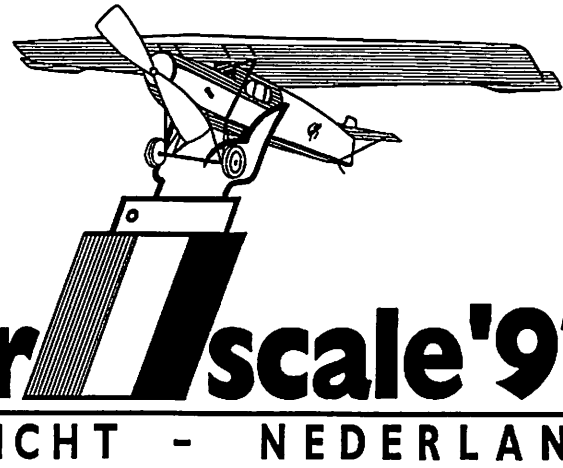
80 mm Dia two blade prop. tip angle 23 degrees.

Mark the tip with an ink spot



Press report

INTERSCALE 1997 Maastricht



The great international competition for scale models will be organized from 29 to 31 August. It's the fourth INTERSCALE contest and again we expect many competitors from all over the world.
In the past the contests were a great success and after the successful event in 1995 Maastricht was chosen again as the temporary world centre for scale indoor flying.

The location will be the same as in 1995: The Dousberg Parc Sports Centre.

There will be four competition classes:
F4D Open Rubber
F4E CO_2/Electric
F4F Peanut
F4 Pistachio

The rules for these classes will be the same as the official FAI rules.
With a variation on these rules one can participate with a maximum of two models per class. Only the results of the highest scoring model will count for the final classification.

With its two large tennis halls the Dousberg Sports Centre is an excellent site to practise this hobby both for competition and for fun during two and a half days.

The sports centre has an excellent hotel accommodation next to the halls at a moderate price,
a great place to eat, a four star camping site within walking distance, perfect bus connections with the pleasant town centre of Maastricht and last but not least a cosy bar where you can renew or strengthen your contacts. For the non-flying partners there will be an entertaining program.

The organisation of this event is in the hands of the oldest model flying-club in the Netherlands "De Rotterdamse Luchtvaart Club" (anno 1911).

Register for this contest before the 1st of March 1997 and at the same time make a reservation for either the hotel or the camping site. After this date a room or camping place cannot be guaranteed, but registration will be possible till the 1st of August 1997.

For information and registration forms apply to:

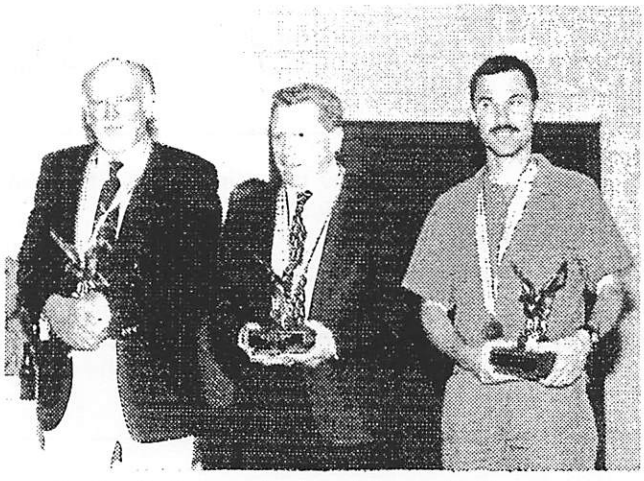
H.F.J.van Leeuwen
Papsouwselaan 180
2624 EE Delft
The Netherlands
Tel./Fax ...31 15 2610972

1996 Indoor World Championships

Report by Bob Randolph (US Team Manager)

Thirty four of the world's best indoor flyers gathered on August 5-8th at the beautiful University of Idaho's spacious Kibbie Dome to compete in the 1996 Indoor World Championship. This 147 foot high site was judged by the contestants to be one of the very best with its good air, cleanliness, and flying area. The American modelers worked very hard and ended up winning almost all the prizes. Overall, the quality of flights have improved a lot with 27% of all flights exceeding 40 minutes.

One of the most important duties of a team manager is getting our models to the meet in good condition. Most of our models were driven to Moscow and back by my friends Bob Gibbs and Ken Johnson in our rental van. One surprise finding was that in order to get all the model boxes, luggage and perpetual trophies in their shipping crates aboard, both rear seats had to be removed, making our van a two seater. Our models arrived in perfect condition ready for flight and we rented an additional car. While I can't truthfully say that being team manager for the Senior Team, the Junior Team (one), and the Defending World Champion (Steve Brown) was a walk in the park, I am sincerely proud to have worked with such a great bunch of winners. Because of a very generous donation by Hall of Famer, Wally Simmers, I was able to purchase distinctive uniform team shirts that were both comfortasble to fly in and attractive. On behalf of our team members and myself, thank you Walley. In addition I would like to call attention to the valuable help that Rob Eberle provided for all the U.S. flyers. He helped with our model boxes and balloons on all our flights, but what was more important were his young eyes that provided us with very accurate estimates of model and balloon heights. Thank you Rob, your efforts were really appreciated.



Banks (2nd), Brown (1st) and Butty (3rd)

Most of my own efforts were focused on helping Gary Underwood, our rookie team member. This approach was validated by his sixth place finish which assured a U.S. Team win. The U.S. Team was in first place since the very first round and increased its lead to more than 17 minutes by the last round. The real battle of the contest was between World Champion Steve Brown and veteran flyer, Cezar Banks. On the first day Steve had really bad luck. On round one his motor somehow slipped off of the prop hook at 12'07 destroying the model. On his second round flight, his motor broke and dropped off at 37'19. On the second day both flyers made great flights with Cezar ahead by 57 seconds. On the final day, Steve posted a remarkable 50'29 while Cezar was unable to improve his second day score.

Steve Brown had successfully retained his F1D crown winning the Gold Medal, Rushbrook Trophy, the Kopecky Trophy for longest flight and AMA's beautiful Eagle Trophy. Cezar Banks was the only modeler to come close but ended up second. René Butty (SWI) was third. René had a most unusual flight when his model struck what we call the curtain rod and changed his stab tilt so radically that for the remainder of the flight, the model continued circling to the right. While five countries indicated they were bringing Junior Teams, none brought them, making U.S. Junior Jake Palmer the only entrant. Jake flew all six rounds and with a score of 72'01 beat six Seniors.

The USA Flyers and I want to thank AMA and everyone that put this Indoor Championship together. Andy Tagliafico deserves special congratulations for his success in making this a memorable World Champs. As I see it the only thing that was not first class was that AMA did not provide team medals. These were provided in Poland in 1992 and in Romania in 1994 even though the FAI Sporting Code does not require these awards. Twelve world class modelers expected these medals but went home empty handed.

It is always a pleasure to visit old friends that I only see at World Championhips. Another unexpected delight was the contest decision not to require wearing the oversized contest numbers we have been forced to wear in the past. Everything ran quite smoothly and the Jury Members had no problems to resolve. I met with mr. Nonaka of Japan who told me that they are bidding for the 1998 Indoor World Championship to be held in Nagoya, Japan. I just loved flying there in 1984, my first World Champs. Thanks again for a great Indoor World Championship!

Indoor Free Flight World Championships Report

from Gary Underwood
US Team Member

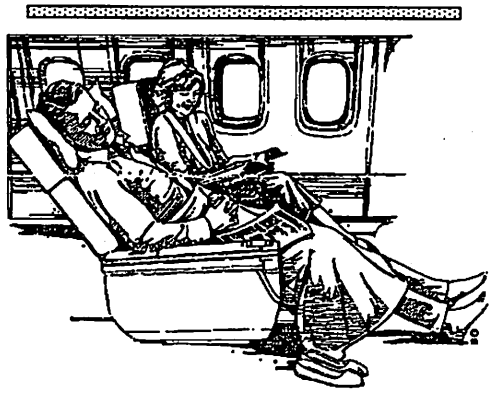
Moscow Idaho August 5 thru 8 1996

Northwest Airlines, Corporate Aviation, Cezar Banks, Bob Gibbs & Ken Johnson ensure safe model transportation

My very first exposure to Indoor Free flight was at the 1974 Aerolympics held in Lakehurst NJ. At that time I was mesmorized with the models and dremed that one day I too might be able to participate in a World Championship. The one thing I never imagined at that time was the amount of effort and planning required in transporting Indoor Microfilm models to such an event.

My adventure began back in June when I placed the finishing touches on three of my models. The company I work for (like many major corporations across the world) has a private flight operation. I work as a Flight Engineer on board these aircraft and do extensive traveling about the world. Towards the end of June, our company had a trip from our home base in Trenton NJ to San Diego CA (home of fellow team member ***Cezar Banks***). We carefully packed the models into the baggage compartment and off we went across the US. After arriving at San Diego airport, I drove to Cezars house where he was kind enough to store them. Cezar then transported both of our model boxes to Santa Ana were they were transferred to ***Bob Gibbs***. Bob along with ***Ken Johnson*** eventually would transport them by van in late July to Moscow Idaho.

In the mean time, I began final construction of my last two models. These were placed inside a reduced size box for airline transport. I made arrangements in mid July to meet with the Customer Service Managers of Northwest Airlines in



Unlike this picture, no Indoor Modeler rests easy until he knows his models have safely reached the contest site!

Newark NJ. Two separate trips were made. I brought with me a sample model box, a video tape of F1D models and sample tail structures to illustrate the fragility of the models.

On August 31st, ***my wife Kit***, Rob Eberle and myself began our trip. Kit departed on an earlier flight than Rob and I so she could make arrangements for a rental car and luggage carriers. ***Jamie Janus and Kim Downs of Northwest Airlines*** made special arrangements by notifying their airline crews and service agents at our different connecting points. Their requests were so persuasive, that my model box rode in the cockpit jumpseats on each aircraft!

When it was all said and done, not a single component was damaged along the way. ***Many thanks to everyone who went the extra distance!!***

Practice, Practice, Practice, and have some great assistants

For months prior to the World Champs, I had made close to 40 test flights trying to learn how to set up variable pitch propellers. My initial mechansims were based upon designs from ***Rene Butty*** of Switzerland and the California design used by ***Steve Brown & Bob Randolph.*** components were machined at ***Ray Harlan's*** facility in Massachutes over a long weekend last fall. Unfortunatly, the fitted attachment point between the shaft and driver arm failed on all the units and I was forced into the classic solder joint configuration.

Rob Eberle of Dublin PA was a great help during these tests. His keen sense helped to reason out what we saw on our marathon of flights. Both Bob Randolph and Steve Brown were excellent instructors by providing a solid foundation to work from.

Variable pitch propellers are a discipline that requires a strong dedication from the flyer.

Once the basices are understood the setup and construction is equal to that of any other component in an F1D.

The key advantaqe is an increase in flight time at a much lower altitude.

Jesse Shephard of Arlington TX joined our forces upon arrival in Moscow. For months prior, Jesse made numerous telephone calls to

Practice, Practice cont.....

ensure my spirits weren't wearing thin.

Kit, Rob, and Jesse were fantastic as they endured my four day marathon of testing at the Kibbe Dome. 40 more flights were made, and if it were not for ***Edmund Liem*** and his faithful soldering iron none of this would have occured. The solder joint on the diver arm broke 5 times. On the fifth repair, we added enough solder to assemble 3 separte mechanisms (it never broke again).

On the 5th Bob Randolph, Steve Brown, Cezar Banks, and Rick Doig arrived. Bob immediatly began assisting me with my propellers. By the end of the evening we had a setup that was ready to go for rounds 1 and 2 the next morning.

Excellent Preparation and Staffing

Andy Tagliafico deserves all of our gratitude. Not only did he establish a smoothly run event, but it was covered by the regional television networks and the Associated Press. Andy spent the past year making almost all the site arrangements and then orchestrating a major Indoor event "The Kibbe Dome Invitational" for several days prior to the World Championships.

The ***Academy of Model Aeronautics*** showed great support by making all the international notifications in the months prior to the event. In Moscow, they sent the head of Competition ***Steve Kaluf*** and our new Executive Director ***Joyce Hagar.*** From a competitor standpoint it could not have run any smoother.

Great Leadership

Bob Randolph served as our team manager. As many will agree, Bob is probably better known as the leading authority on variable pitch props. Even though his first love would have been to fly at this years World Champs, his expert skills and demeanor made him an outstanding leader for the team. Bob was there on every flight, jockeying between, assisting each team member and interfacing with the event management.

Rob Eberle also deserves strong praise. Rob flies regularly at Lakehurst and has become probably one of the best model steerers in the world. Rob acted as assistant to all of the team, and was the only individual who confidently could spot and direct every steer made by the U.S. Team.

Conclusion on a Bad Note

The World Championships are a ***team sport.*** Elimination's are conducted over a lengthy period to select 3 individuals who can work together. Their efforts combined determine if their country places 1st or 15th. The unfortunate part is that recognition of these achievements seemed based solely on individual performance.

Medals ***were*** awarded to the top three individuals, regardless of country. ***No*** medals were awarded to the 11 people whose teams placed 1st, 2nd, or 3rd (*although a Diploma sheet arrived the other day with stamped imprints from individuals unknown to me*). A team trophy went to the United States, but it is difficult to share this as we all can't enjoy it at the same time (*in addition, it is returned for the next World Champs*).

So, I walk away from one the highlights of my modeling life (as do **all** the members from the **US, Great Britain and Canada**) with nothing more than a sheet of paper. I have been asked by dozens of modelers and my company superiors to show them my medal. It is embarrassing.

Now, what do we have to do to get our medals?

Three Days and Six Rounds of Excitement

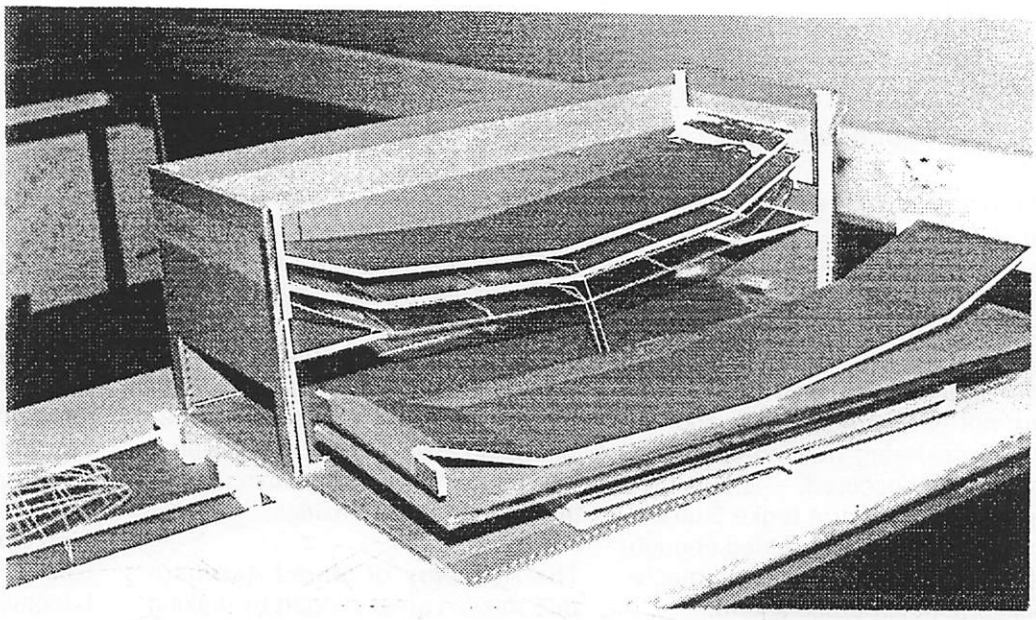
Unlike the 9 round US Team Selection Finals, the World Championships are flown in only 6 rounds. With a dozen teams, a potential of over 80 official flights could be made each day. At the end of the first day, 14 flights over 40 minutes were posted, the top times in the mid 40s.

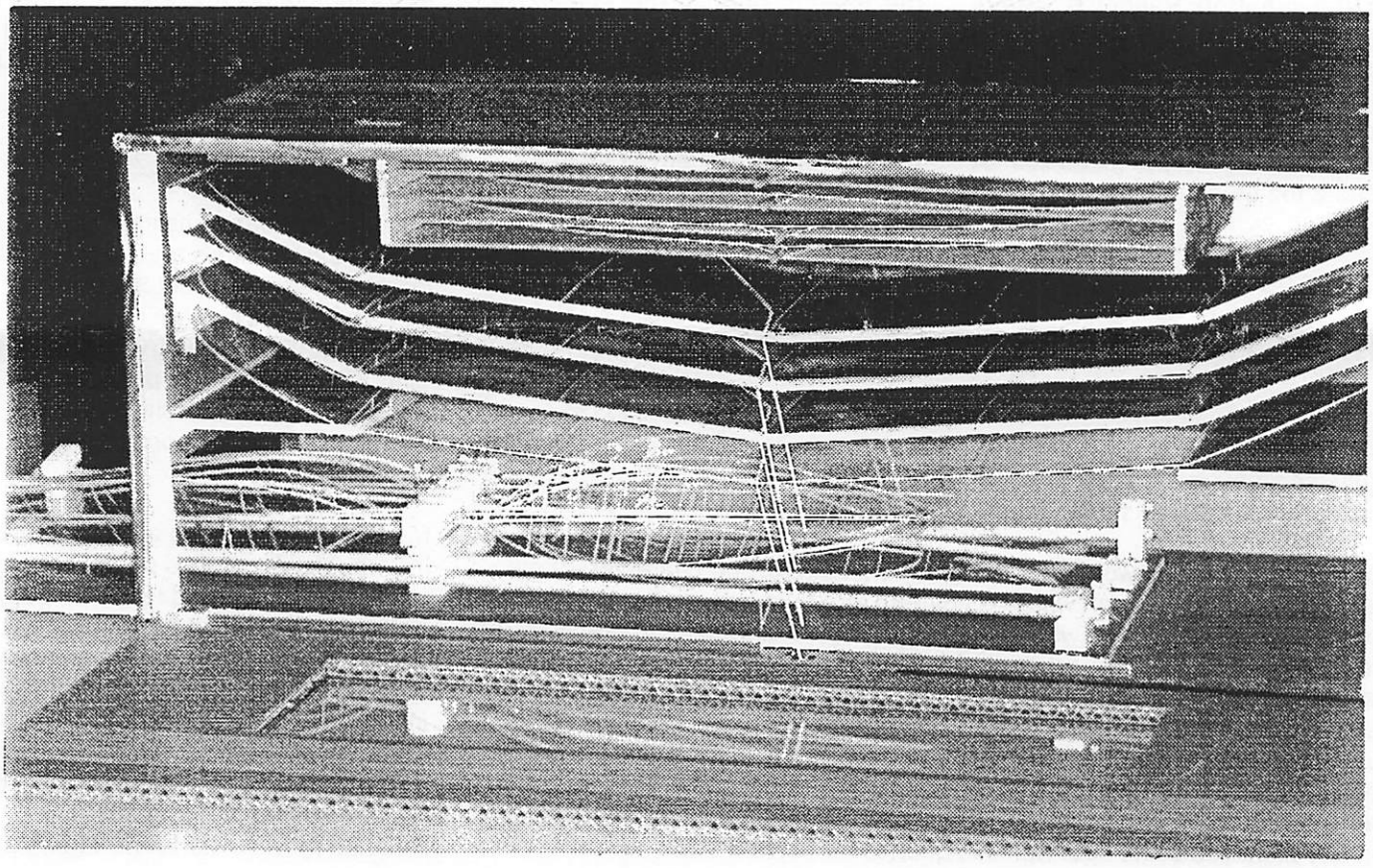
The Kibbe Dome is a wonderful flying site with interesting character. It measures 147 feet to the peak which is covered in a suspended panel assembly. Two curtain rods span its width and hang down to an approximate level 20 feet or so below the roof. A dozen cables suspend the rods, and this divides the site into what appears as a three ring circus. Safe flights could be made below the rods with minimal steering. Flights climbing above this level were subject to multiple dangers such as the spaces between the panels and intercepting a rod cable (almost certain hang up). In these cases, steering became paramount. Visability against the white panels was near to impossible. On any flight you could hear multiple queries on ***"where's the model".*** With the number of flights, their lengthly duration, and poor visibily everyone should commend the entire timing staff for their diligent and accurate effort.

On day two and three the competition brewed even stronger. 19 more flights in excess of 40 minutes were added on day two and 22 more on Day three. The top times were at the 50 minute range:

Steve Brown USA	***50:29***	***49:18***
Cezar Banks USA	***49:50***	***48:47***
Rene Butty SWI	***48:01***	***45:42***

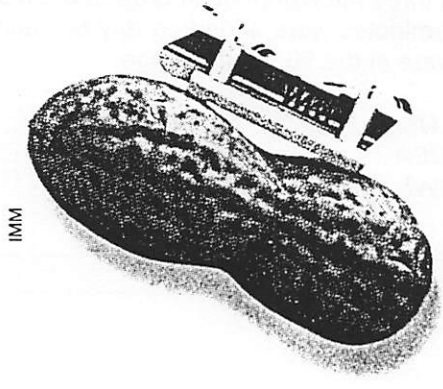
Aurel Popa's Mini F1D Model Box

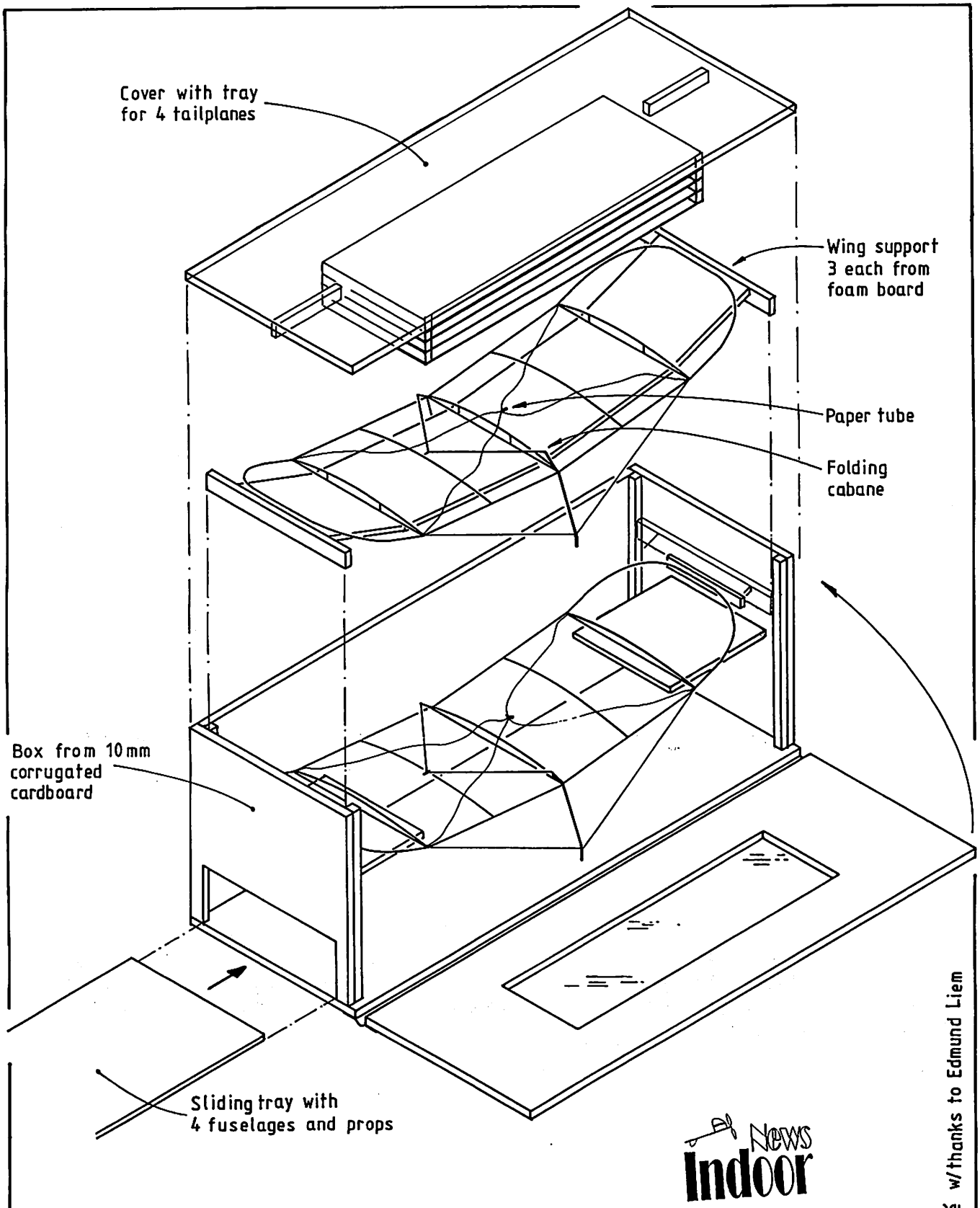




Smallest helicopter in the world

From Bild der Wissenschaft: Scientists of the Mainz Institute for Microtechnics have built the smallest helicopter in the world: only 8 mm high! The helicopter is powered by two micromotors which drive the rotors at more than 100.000 RPM. With this high-tech toy the scientists wanted to demonstrate the performance of their 2 mm large micromotor, which is used in cardiac surgery.





Indoor News

Mini F1D Model Box

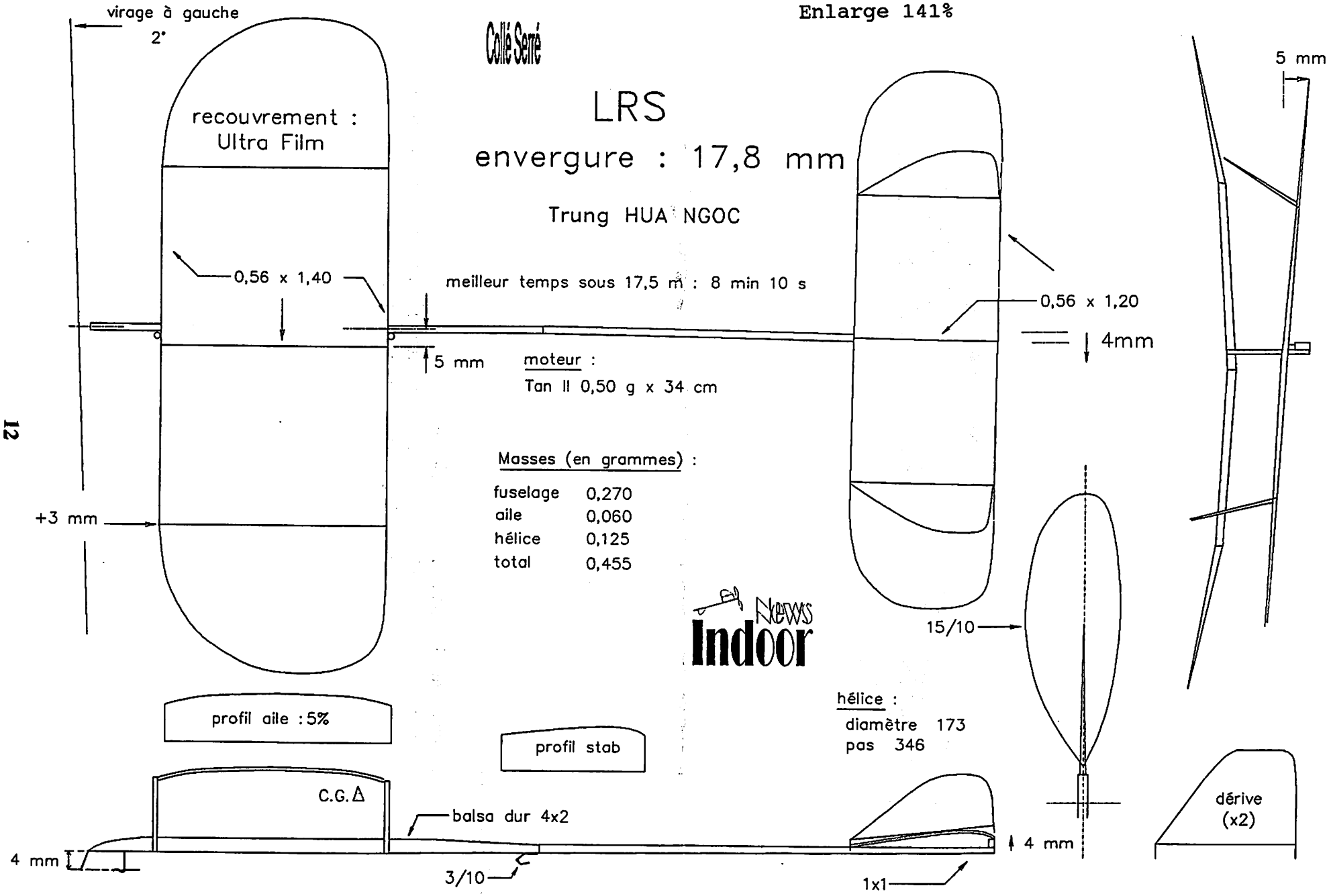
carries 4 complete (braced) models

Dimensions: 67 × 25 × 25 cm

Design: Aurel Popa (Rumania)

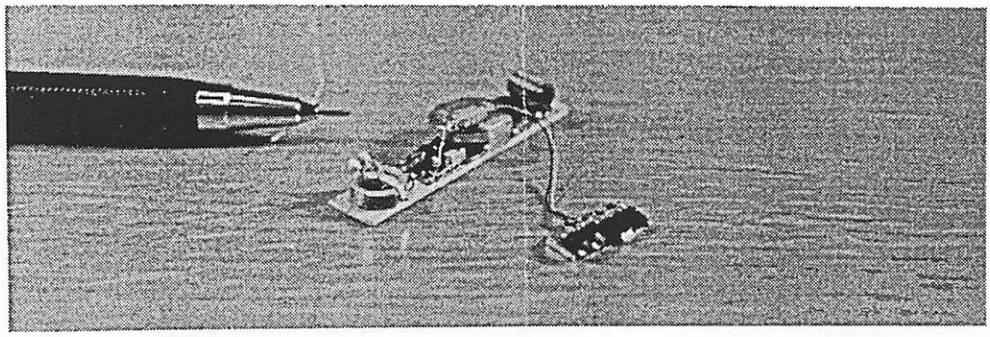
Drawn: Thedo André w/thanks to Edmund Liem

Enlarge 141%

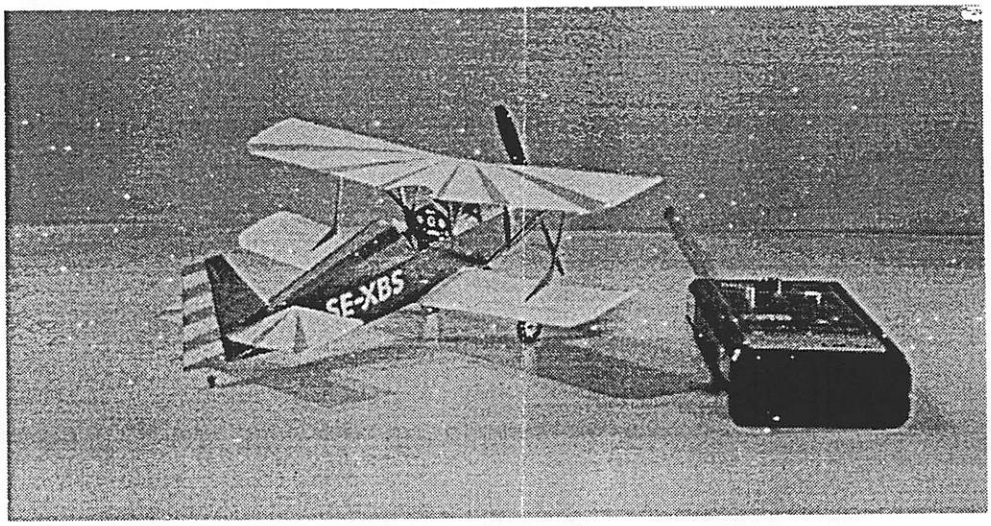

virage à gauche
2°
Collé Serré
LRS
envergure : 17,8 mm
Trung HUA NGOC
recouvrement :
Ultra Film
0,56 x 1,40
meilleur temps sous 17,5 m : 8 min 10 s
0,56 x 1,20
4mm
5 mm
5 mm
moteur :
Tan II 0,50 g x 34 cm
+3 mm
Masses (en grammes) :
fuselage 0,270
aile 0,060
hélice 0,125
total 0,455
News
Indoor
15/10
hélice :
diamètre 173
pas 346
profil aile : 5%
profil stab
C.G.
balsa dur 4x2
dérive
(x2)
4 mm
4 mm
3/10
1x1

Rainicontrol "Pistazie"

Single Channel RC-System



Complete "Pistazie" unit consisting of receiver, rudder actuator, accu-cell, switch and charging socket



Andréason BA 4B Peanut scale model (Peck Polymers kit),
powered by "Rainimot 21mm^3" CO_2 engine, "Pistazie" RC system, total weight: 17 g.

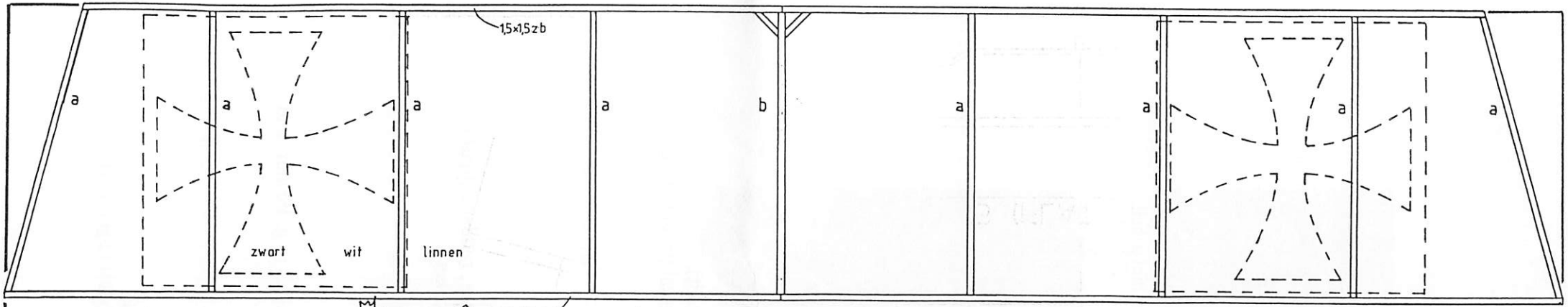
Technical Data:

single cannel, button controlled radio system

weight:	2.7 g (complete unit cosisting of receiver, rudder actuator, accu-cell, power switch and charger socket)
supply voltage:	1.2 V
range:	100 m (approx.)

Rainicontrol "Pistazie" is suitable for remote control of very lightweight models (e.g. Peanut- and Pistachio scale models, Indoor models).

Rainer Gaggl .....Triesterstraße 69..... A-8020 Graz ..... Austria
Tel.: ++43-316-261497 ..... FAX: ++43-316-8738655 ..... e-mail: raini@fexphds04.tu-graz.ac.at

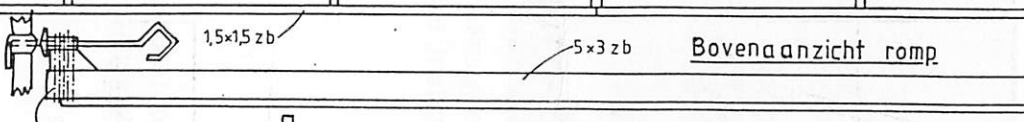


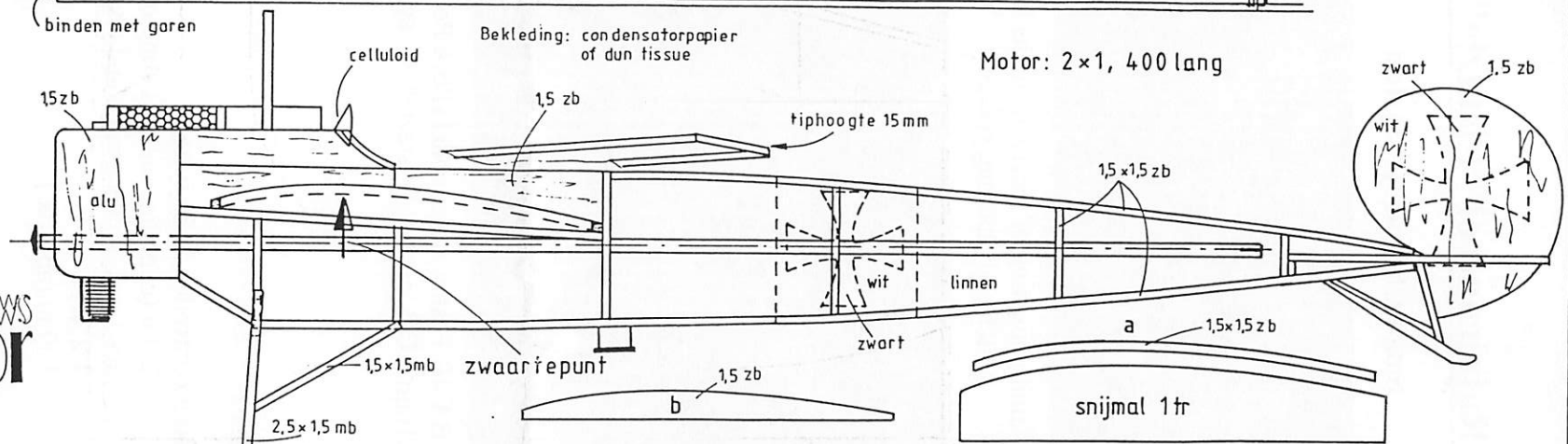
FOKKER E III

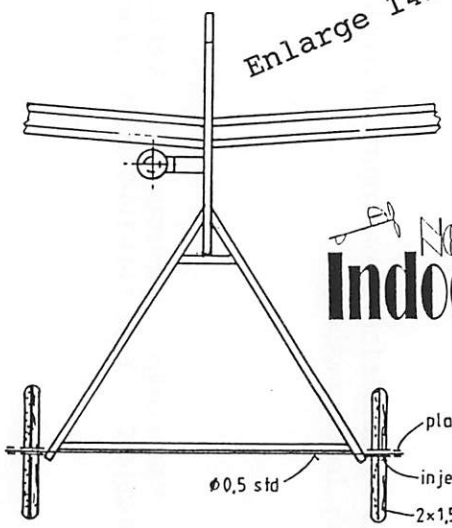
Semi-profielschaalmodel

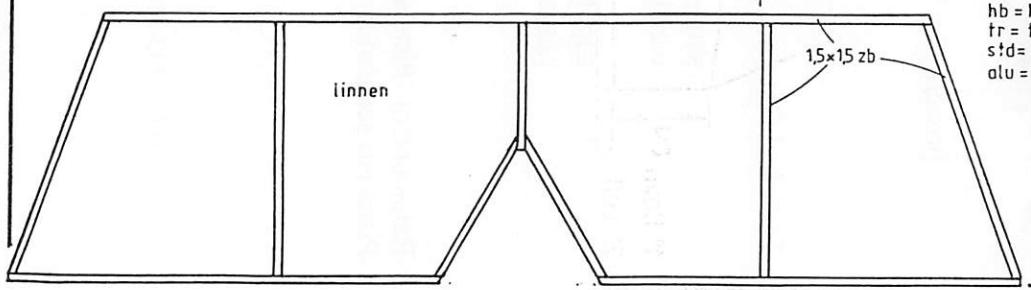
Ontw.: Thedo André

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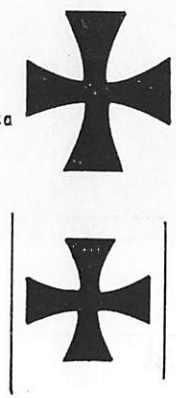


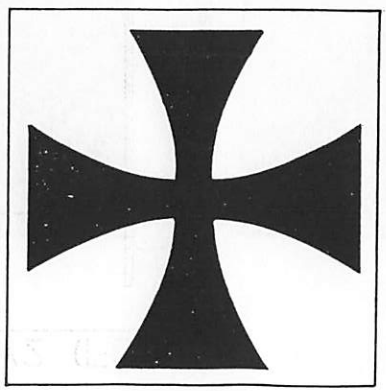


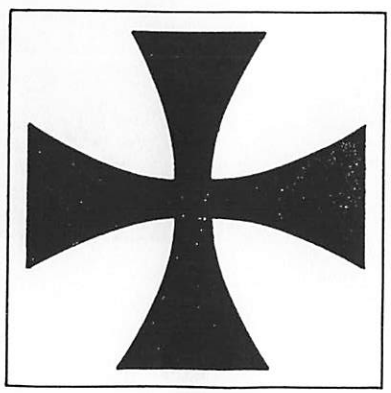


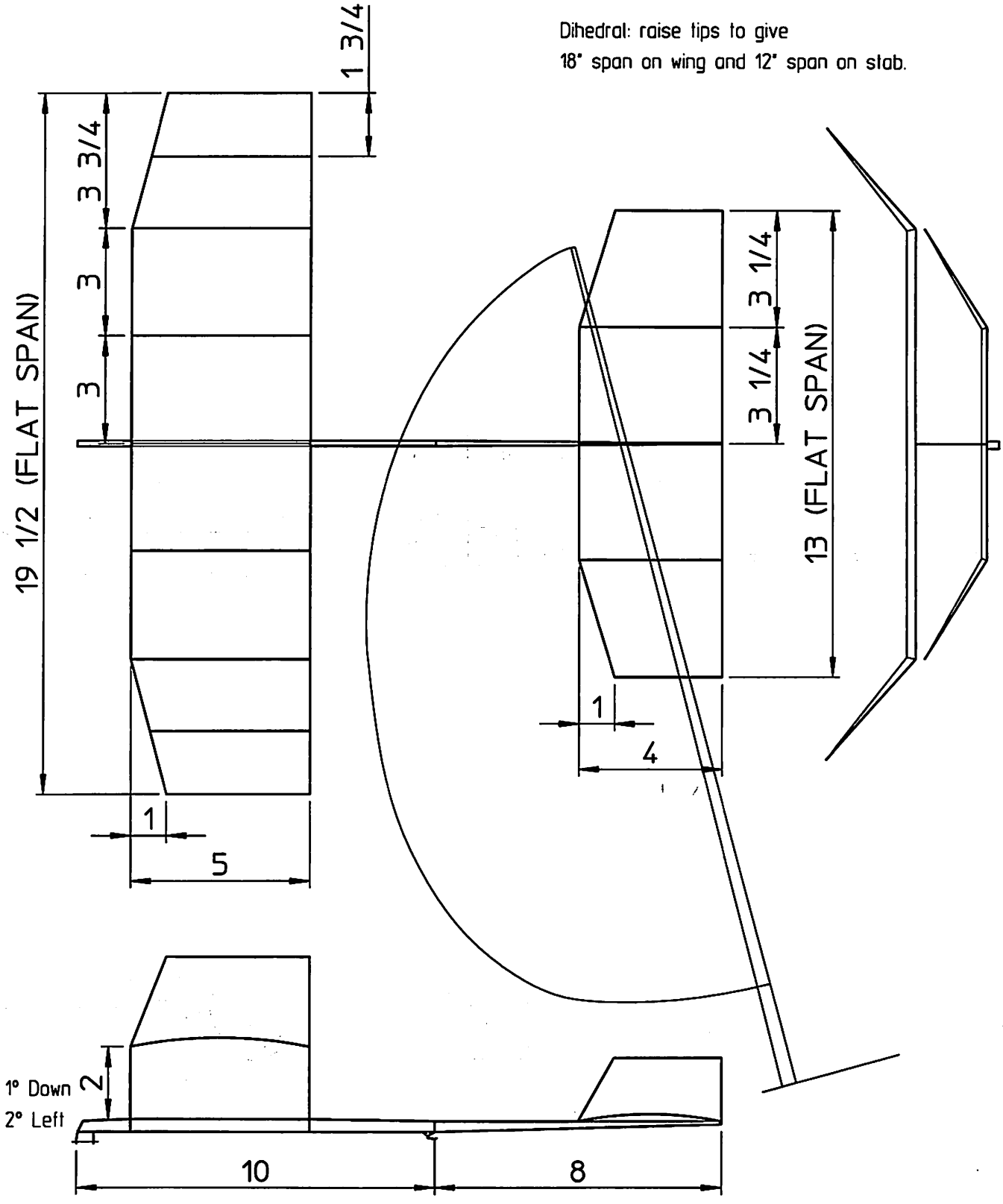


zb = zacht balsa
mb = middelhard balsa
hb = hard balsa
tr = triplex
std = staaldraad
alu = aluminium









Prop.: 12" Dia., 28" Pitch
Motor: .075x15,5", 2100 turns

Weights		
Wing	.028 oz	0.79 g
Prop	.030 oz	0.85 g
Rest	.052 oz	1.47 g
Total	.110 oz	3.11 g

Indoor News

Limited Penny Plane

"Skipper"

By: Warren Williams (USA)
Best flight: 16'14 Cat. I

ECIM 1997

Membership Information

1997 will be our 71st year of Indoor modeling in Hangar 1!

ECIM is commited on bringing you one of the finest high ceiling sites, more frequently than any other club in the world.

Our flying sessions are designed to challenge the most proficient of modelers and to assist new modelers with instructional seminar/apprenticeship programs.

Hangar 1 is available from early morning thru the evening. Halogen lite setups are also available for those members who care to brave the dark!

The ECIM group is made up of all levels of modeling experience. Our atmosphere is casual, and we pride ourselves on being a family. If this sounds like the kind of modeling you have been looking for, we would be happy to have you join us.

ECIM Membership

1997 Membership dues are $45 per family. All flyers must have current AMA memberships for 1997 to use Hangar 1.

Checks can be made out to ECIM

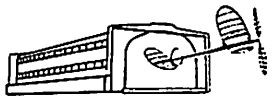
ECIM
24 Kennebec Court
Bordentown NJ 08505



Sincerely,

Gary & Kit Underwood
East Coast Indoor Modelers

EAST COAST INDOOR MODELERS
1931



Lakehurst, NJ

110 AMA Sanctioned Flying Dates !!
Available Every Weekend of the Year !!

1997 AMA Contests

Memorial Weekend Session	3 Days	May 24, 25, 26
July 4th Pete Andrews Contest	4 Days	July 3, 4, 5, 6
Labor Day Weekend Contest	4 Days	Aug 29, 30, 31, 1st
FAI U.S. Team Regional Contest	3 Days	July 4, 5, 6

Tech Seminars

With the overwhelming response to our first Tech Seminar in 1996, we have decided to expand the format to include several in 1997. In addition to our entry level session, we will include high tech instructions.

The Limited Penny Plane
Covering all the basics, construction, covering, and setup of a Limited Penny Plane.

Lightweight Motorstick Construction
How to integrate different wood grades and still get results, jigs, effective bracing, bearing mounting and selection.

Hand/Catapult Launch Gliders
The latest trends, construction techniques, and trimming.

Variable Propellers
Design, construction, and setup for reliable variable propellers.

Model Steering
Technique, execution, and setups for effective model steering and retrieval.

Additional Events in 1997

Steve Wests' Dollar Contests
Count on several informal contests throughout the year from our good friend Steve West. Each one is unique and guaranteed to be fun!

Scale Weekend
Count on one weekend this year that will be dedicated to the scale flyer. A Special invitation will be made for flyers outside the club to come join us.

ECIM Dinners
Fun times, good food, and a wonderful presentations will be set up this year for our group. Don't miss it!