#53

Indoor Flight International

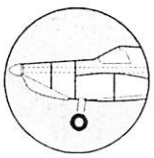
JAN 02

THE LATEST NEWS AND INFORMATION ON INDOOR MODEL AVIATION.

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A Word from the editor

First of all, I would like to thank Peter Kearney for his efforts in publishing the previous issue of IFI. For personal reasons he wasn't able to produce more than one issue, but the one he has published was great!
Subscription rates will be published in the next issue as this one is more or less an emergency issue. Future issues will contain 16 pages and I intend to publish IFI 4 to 6 times a year, based on the material I'll receive. Therefore, please send your correspondence by email (preferred) to me at:
indoorflight@yahoo.com
or by mail to me at:
Gert Brendel
Albert Meyeringstraat 54
7521 TM Enschede
The Netherlands
I certainly look forward to your contributions; together we can make and keep this newsletter great reading stuff for everyone!
So, that's for the formal part. And now more informal... Who am I, I can hear you asking? Well, I'm a 28 years old enthusiastic indoor (scale) modeller - although some of you may have seen me flying the occasional F1M or Ministick. I've started the hobby about 10 years ago with a Saint Formula model, and I was immediately hooked for the rest of my life and many more models followed...
So far, thanks for listening and I hope you enjoy reading the rest as much as I did the editing bit!

Gert Brendel

Contest Calendar

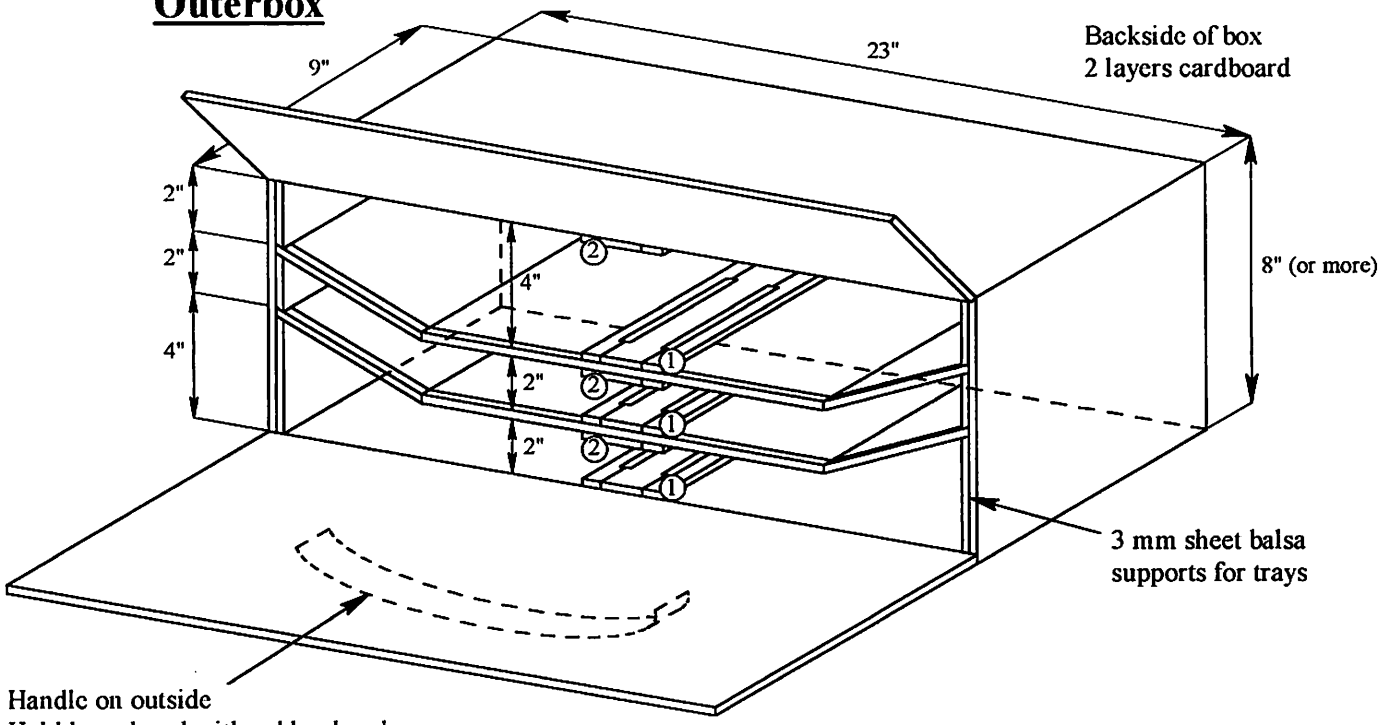
What & When	Where	Info
International Postal Contest 1.10.2001 – 31.3.2002		F1L, F1M, FAC Peanut Scale, NoCal (profile) Scale (min. 6.2 grams without rubber motor and built to FAC rules). Contact Name: Bill Henderson E-mail: *henderson98@yahoo.com* Address: 15 Joicey Blvd. , Toronto ON, Canada, M5M 2S8
Hangar Rat Postal 2.1.2002 – 31.3.2002		One design event - Hangar Rat. Two classes to compete in: Aeromodeler Dec. 98 plan with wooden "Paddle" or Harry's original plan with plastic propeller. Contact: Art Lane at *artlane@juno.com* or Harry Barr at *harry.barr@sympatico.ca*
11th Florence Indoor Open 20.1.2002	Florence, Italy	F1M, TH, Ministick, F1N (hlg), Catapult gliders, Fun Fly. Logistical facilities, upon request, for foreign contestants. Contact: Club GAF, P.O. Box 18250, 50100 Firenze, Italy. Email: *jacopopesciolini@hotmail.com*
Belgrade Cup F1D 25-26.5.2002	Belgrad, Yugoslavia	Entry fee US$30. Contact: Vojislav Stojkovic, St. Kralja Petra 70, 11000 Beograd, Yugoslavia Tel: +38 111 18 96 27, fax: +38 111 18 64 43, email: *l.s.d.@Eunet.yu*
Concours International 22-23.6.2002	Orléans, France	F1D, F1L, F1M. Entry fee €15 1 model, €8 next model. Contact Jacques Delcroix, 41, Allée du Coudray, 45160 Olivet, France Tel: +33 2 38 63 49 57, fax: +33 2 38 63 49 57
3rd Concours International 29-30.6.2002	Bordeaux, France	F1D, F1L, F1M . Entry fee €16 1 model, €8 next model. Contact: Jean-Pierre Darrouzes, 27, avenue Kennedy, 33600 Pessac, France Tel: +33 5 56 36 95 44
BMFA Indoor Duration Nats 25-26.8.2002	Cardington, Un. Kingdom	PROVISIONAL DATE AND VENUE: Saturday - F1L, F1M. Sunday New Rules F1D, 1st 2002 World Champs Team Trials. When attending, you MUST contact Laurie Barr on 01628 487544.
Interscale 2002 6-8.9.2002	Prostejov, Cz. Republic	Open Indoor Scale F/F. Contact: Ing. Tonda Alfery, email: *astra@uhbrod.anet.cz*

BIG SQUARE 55 CM TRAVEL BOX

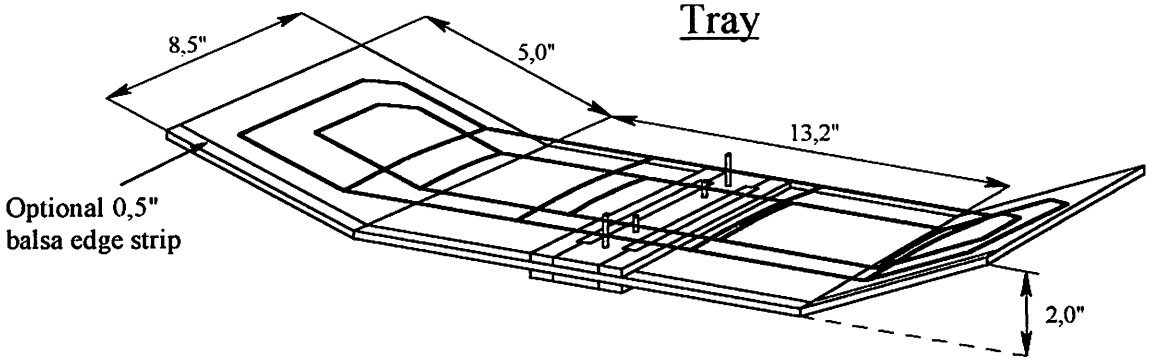
Designed by Bernie Hunt
Drawn by Gert Brendel

Outer box 3 mm corrugated cardboard
Trays 2.5 mm corrugated cardboard (or balsa)

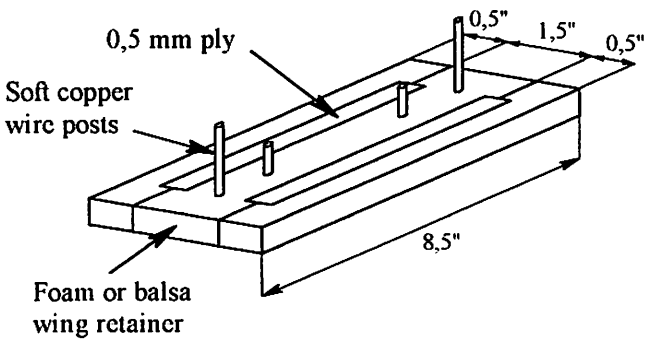
Outerbox



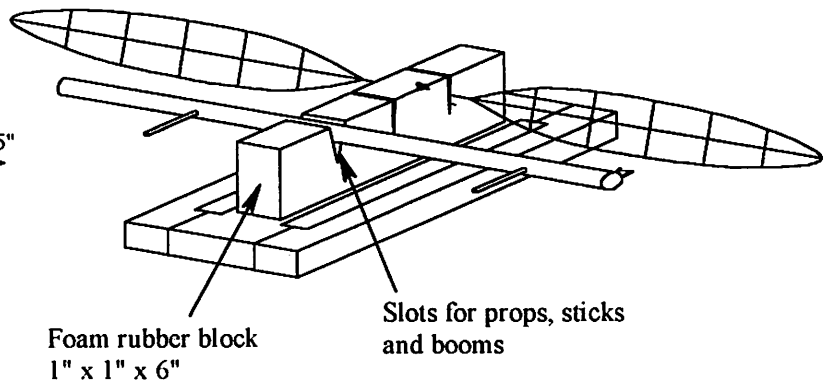
Tray



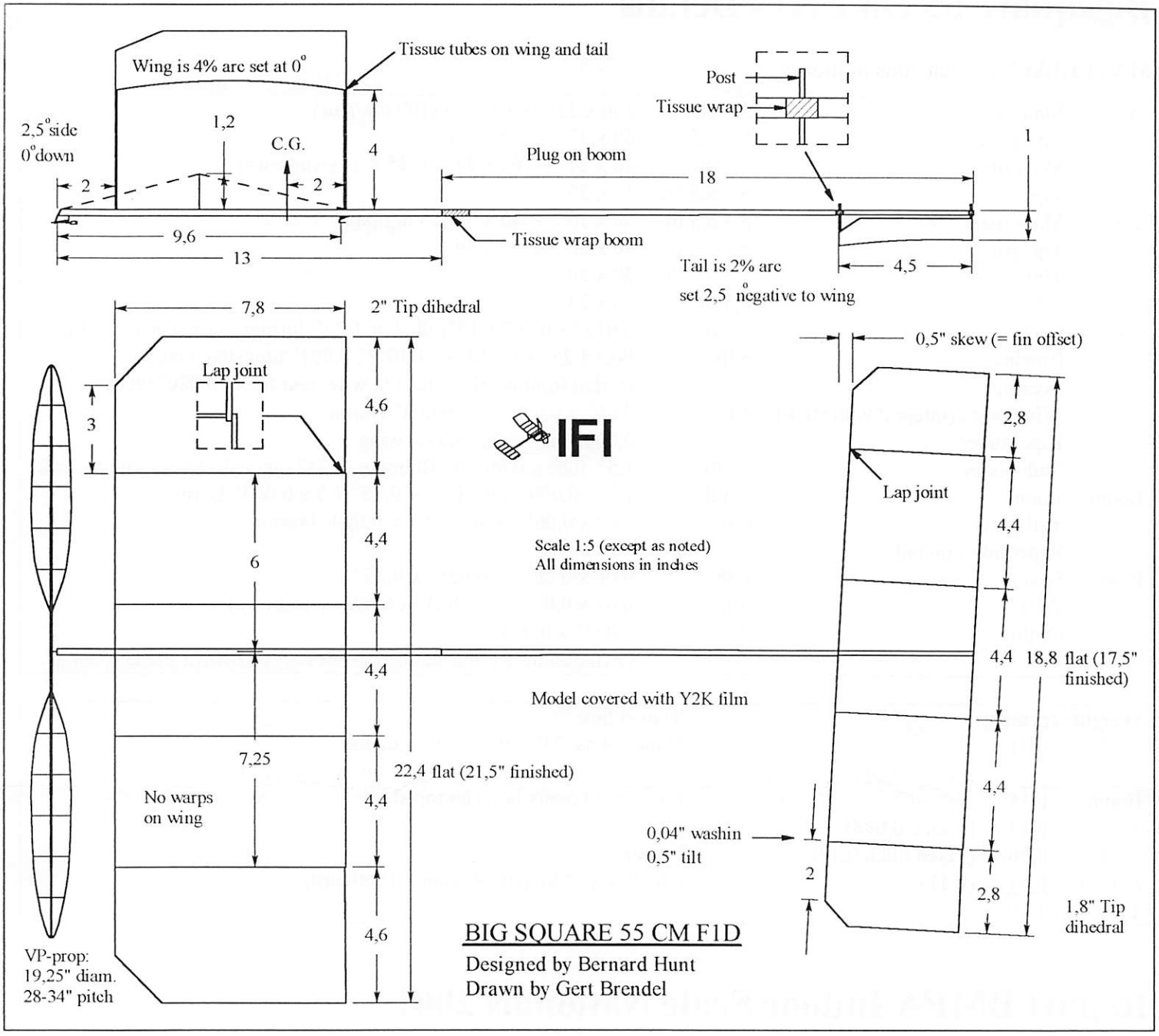
Slider 1 (2 mm Balsa)



Slider 2 (2 mm Balsa)



Slider 1 for wings/tails on top of trays
Slider 2 for sticks/booms & props
Best find ready made computer box of right size (I did!)

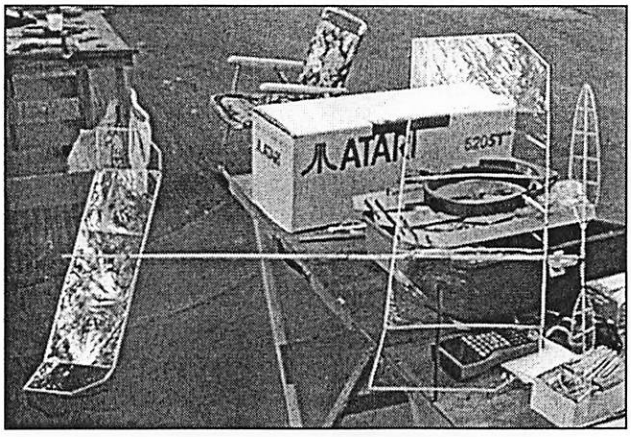


Bernie Hunt's Bigsquare 55 cm F1D (UK)

The model is full size (wing and tail as big as the rules allow) and built down to weight despite being unbraced and Y2K covered. It seems plenty strong enough and flies beautifully.

I have avoided curved outlines so I can use springy wood (my best spar wood will not go round curves without kinking) and avoid the need for templates. I think the prop is a bit big for this class and 16-18" might make trimming easier and save more weight.

The model breaks down to wing, stick/posts, tail, prop and boom which can be fitted into a very compact (23" x 9" x 8" for 3 models) box for hand carrying on planes (drawing in this issue). Each model fits in a slot in the box. The wings and tail sit one on top of each other on posts on a slider on the bottom of each slot. The props, sticks and boom are held in foam blocks on a sliders at the top of each slot (props in wider top slot only).



Bernie Hunts Big Square at Cardington Photo by Nick Aikman

Bigsquare 55 cm F1D - Details

MATERIALS (dimensions in thou):

Wing	Main spars	5 – 5,5 lb.	100 x 35 → 63 x 35 (109 mg/pair)
	Tip spars	5 – 5,5 lb.	60 x 35 → 30 x 35
	Main ribs	4,5 lb.	46 x 24 → 65 x 24 → 45 x 24 (Andrews)
	Tips	5 – 5,5 lb.	35 x 35
Tail	Main spars	5 – 5,5 lb.	58 x 30 → 40 x 30 (55 mg/pair)
	Tip spars	5 – 5,5 lb.	40 x 30 → 30 x 30
	Tips	5 – 5,5 lb.	30 x 30
	Ribs	4,5 lb.	30 x 23
Stick	Stick	4,3 lb.	0,013" x 0,76" x 13"rolled on 0,22" former + 4 x 0,004" Boron
	Bracing	5 lb.	Post 1.25" x 0,040 → 0,025", 0,001" tungsten brace
	Bearing		Harlan front bearing, 0,013" wire rear hook, 0,020" webs
	Wing posts (integral with stick)	6 lb.	0,067 x 0,050 + 2 x 0,004" Boron
	Paper tubes		0,060" dia – tubes are on wing
	Stub boom	4,5lb	1,5" tube x 0,009" to fit boom; 0,25" inner sleeve for join to stick
Boom	Boom	4,3 lb.	18" x 0,009" x 0,74" → 0,45" + 3 x 0,003" Boron
	Tail posts	6 lb.	1,0" x 0,06" x 0,040" + 2 x 0,004" boron
	Paper tubes on tail		0,045" dia
Prop	Spar	6 lb.	0,06 x 0,06 → 0,025" x 0,25"
	Ribs	5 lb.	0,03 x 0,025 → 0,023" x 0,025" (Andrews)
	Outline	4,5 lb.	0,023" x 0,023"
			Own design VP mechanism, blades Steve Brown shape 8" long

Weights (grams)		
Stick	0,31	
Wing	0,31	(Frame 0,24)
Boom	0,15	
Tail	0,14	(Frame 0,098)
VP Prop	0,26	(Fixed pitch 0,18)
Ballast	0,03	(0,11)
Total	1,20	

Travel box

Dimensions: 23" x 9" x 8" (3 models).
Wing and tails on slider on the bottom of each slot; sticks on top.
Props and booms in wider top slot.

Motor

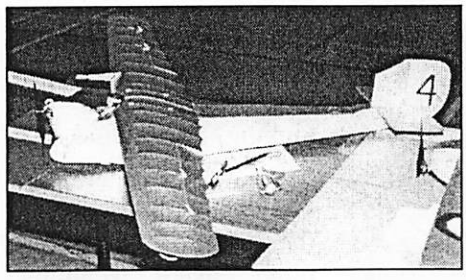
0,052" x 8,7" loop 0,59 gram – 1560 turns.

Report BMFA Indoor Scale Nationals 2001

By Mike Stuart (UK)

This year's event was a very encouraging one from the point of view of quantity of entries - no less than 55 in the four classes, of which 48 flew - a great improvement on last year, and there were lots of new models to see. This may well have been the result of the decision to present new awards in all classes for the best placed novice - anyone who had not previously had a top three finish. There were also a good number of spectators, and the balcony overlooking the hall seemed full all day, not to mention the many fun-flyers who were using the other hall.

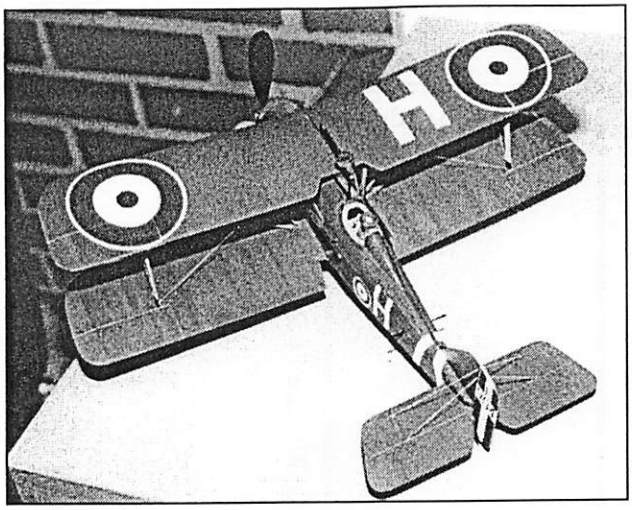
The atmosphere was informal and friendly as usual, with people ready and willing to talk about their new models, or discuss techniques. As well as the formal competition classes, there was the organised mayhem that was the air race (how many times can you lap a course in 10 minutes) and a mass launch to close the meeting - last one down wins. These last two events were open to all, and great fun.



English Electric Wren Photo by Mike Stuart

Before the photos here is a quick reminder of the BMFA competition classes and their different rules.

The Open Rubber and CO_2/ Electric classes have a total based on flight score plus static score, split 50/50. Four flights can be made and the score from the best flight counts.



Divs Masters new SE5a Photo by Mike Stuart

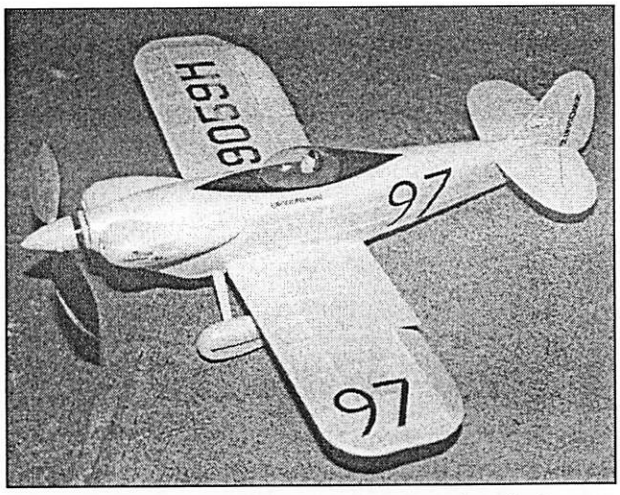
To qualify, you have to make a flight of only 15 seconds. The flights are judged on realism in the various stages of the flight, i.e. take off, climb out, cruise, approach and landing. No extra points are given for longer flights than 15 seconds. As always, it is a fine balancing act between weight and detail.

The Peanut (13" wing span) and Pistachio (8" span) classes have different rules, in that the flying scores do depend on flight time. Realism in flight is not judged, just the time it stays up. You get a ten second bonus if you ROG (Rise Off Ground). Four timed flights are made, and the best two are added together to give you a flight score (in seconds). The models are ranked in order of flight performance, and also in order of static judging. Bonus points are given in the latter for such features as multiple wings, scale rib spacing, having a pilot, separate control surfaces, exposed engine detail etc. The final positions are obtained by adding the flight position to the static position - lowest score wins.

I entered two models this year for the first time, and was very pleased to come third in Open Rubber with my Caravan, which flew very reliably, and fourth in Peanut with the new Jungmeister. This latter scored well in static, but is a bit overweight, achieving a respectable flight score only because of the 10 second bonus for an ROG flight.

English Electric Wren by Richard Granger

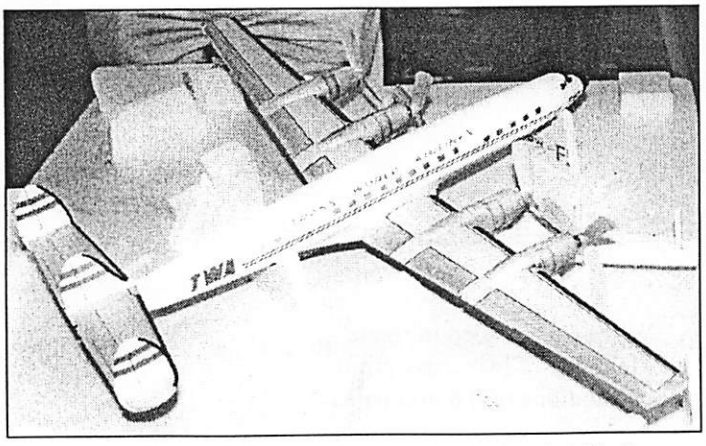
This is a huge model to be flying indoors, with a span of no less than 52 inches. The fact that it manages so well is due to its very low weight of just 102 grams. This means it flies very slowly - just like the real aircraft at Old Warden. Power is supplied by a Brown twin CO_2 motor. Richard was having trouble trimming it early on, but pulled one superb, leisurely flight out of the bag to deservedly win the CO_2/Electric class.



Denight DDT Photo by Mike Stuart

Denight DDT by Andre Petit

Andre had another successful visit from France, picking up second place in the Peanut class with this Denight DDT racer. The model scored highly in static (notice the scale ribs in all the flying surfaces), and managed flights of around a minute to achieve the highest flight score in the class. Andre also took 2nd place in Open Rubber with the Me 209 he flew last year, but which performed even better this time.



Another 4-engined one! Photo by Mike Stuart

SE5a by Divs Masters

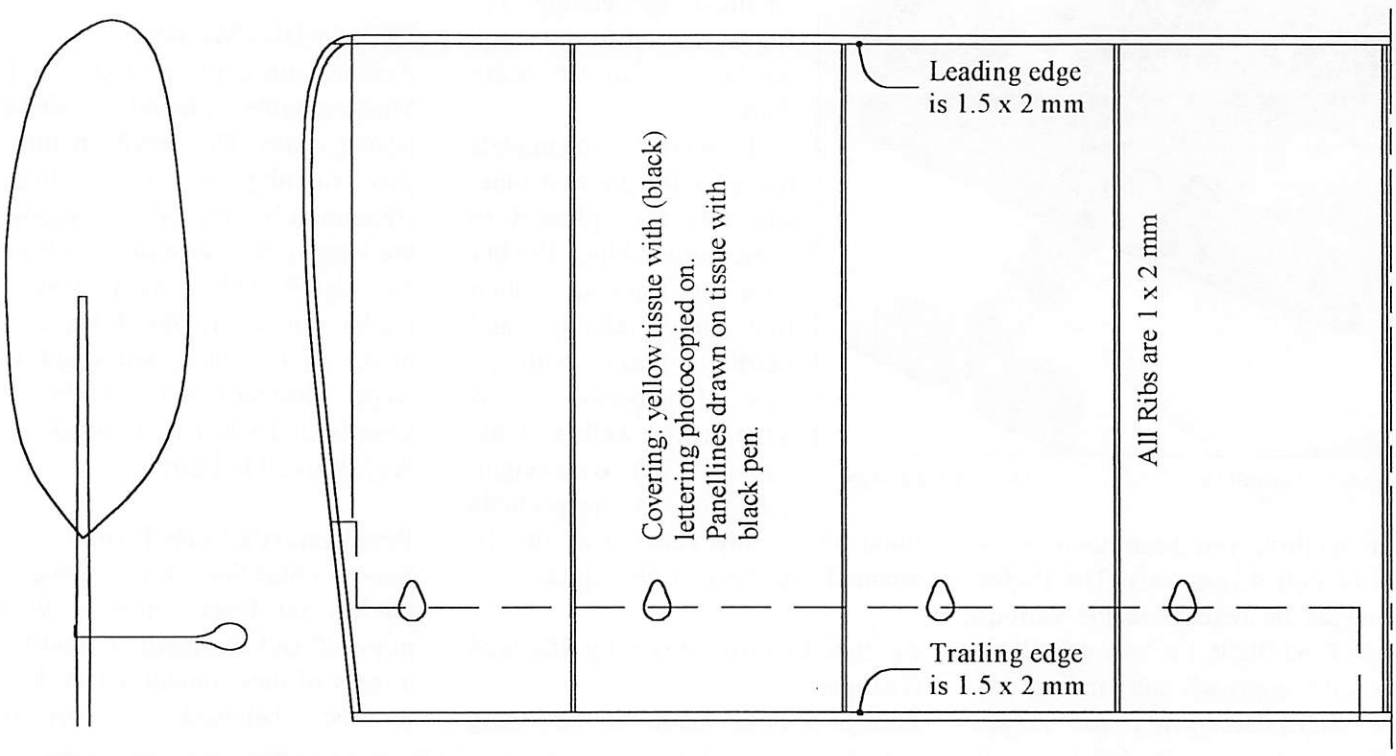
Another masterpiece from the Divs Masters stable - a brand new SE5a for peanut scale. The detail on this one was stunning - all the fuselage stitching was accurately reproduced, the rigging was amazing, as was the gun detail and cowl louvres. The model got easily the highest static marks in the class, but flight times were disappointing. Early days though, and when it is sorted, it will very difficult to beat!

Peter Smart's Early Birds

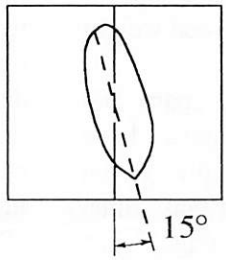
Superb collection of 1/36 scale foam models by Peter Smart - all CO_2 powered (all Gasparins I think). The artistry of these models has to be seen to be believed - particularly impressive is the depiction of wing ribs using airbrush shading.

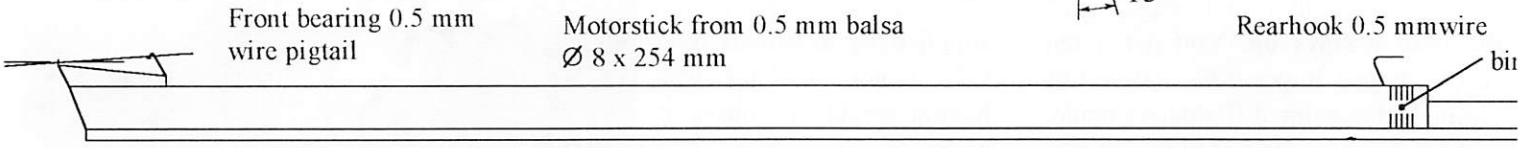
The little D.H.2 even features a rotary engine that goes round with the prop!

Peter's latest multi-engined foam masterpiece is this amazing Lockheed Starliner. Power comes from four separate rubber motors - one in each nacelle - no fancy gears or anything. Peter did some test flights, including one memorable successful ROG flight towards the end of the day.

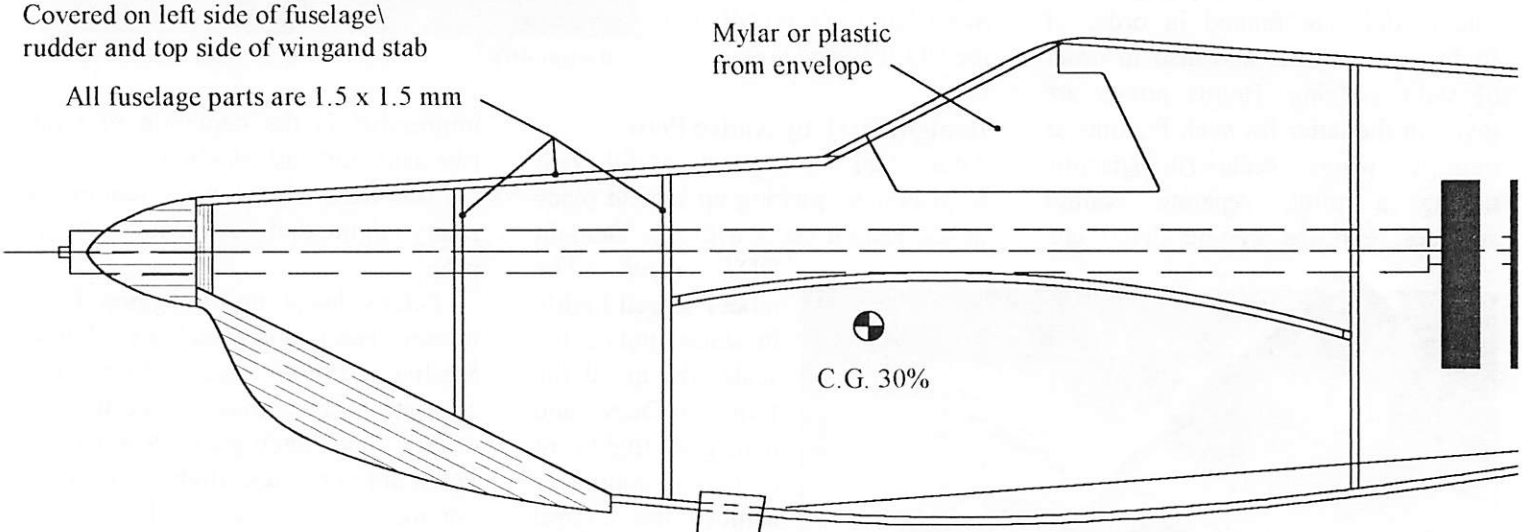


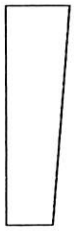
Prop is 230 mm dia x 310 mm pitch
Blades are 0.5 mm thick light balsa, formed on 130 mm cylinder at 15°
Prop spar is 3 mm tapered to 0.8 mm hard balsa, 80 mm
Set blades to 45° at 50 mm radius from hub



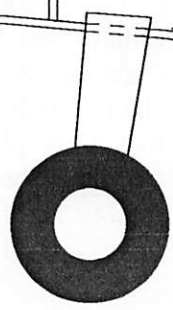


Model is covered with yellow Esaki tissue
Covered on left side of fuselage\
rudder and top side of wingand stab

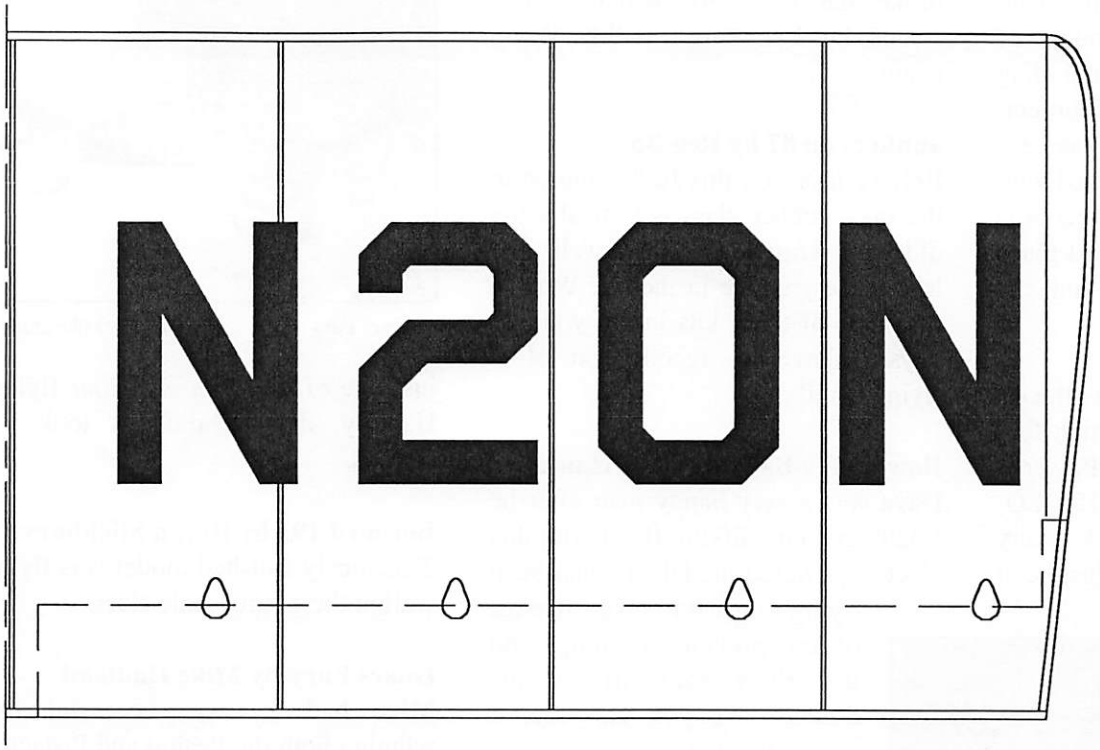




Landing gear pattern
Make gear out of hard
1.5 mm sheet



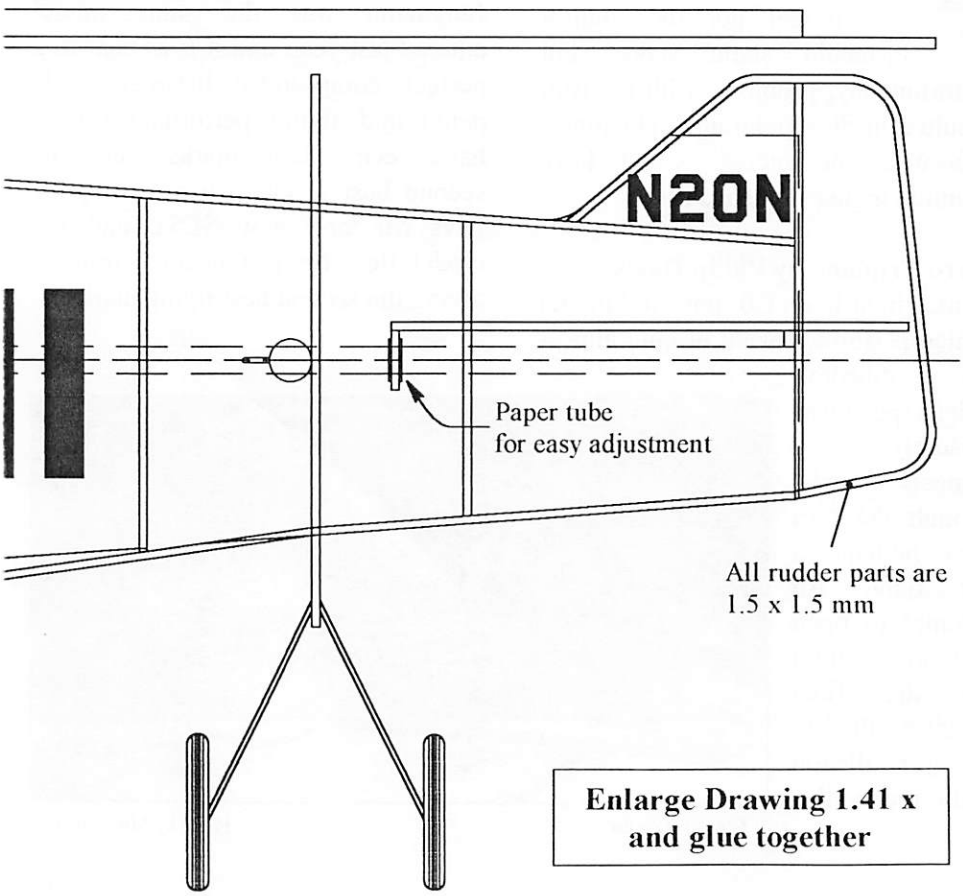
Wheels don't need to rotate
Make out of two cross-grain
laminations of 0.8 mm balsa

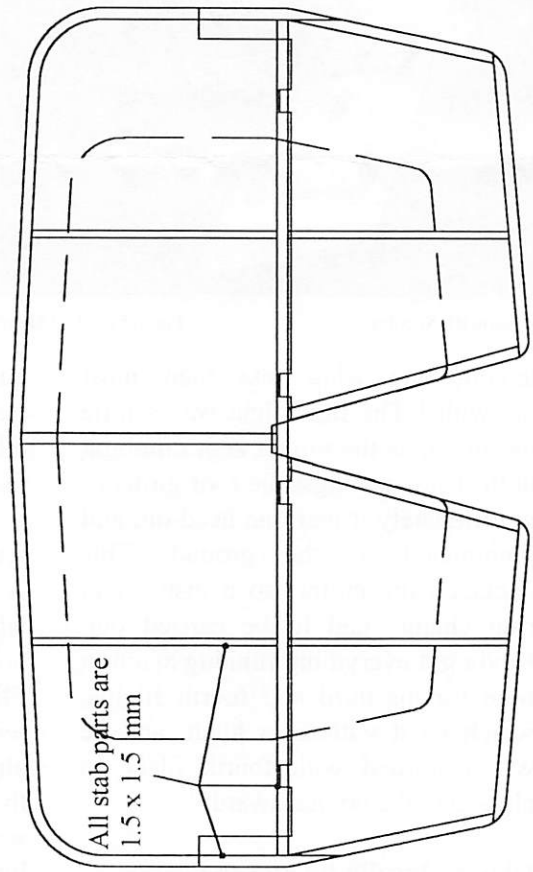


Wing airfoil template

with thread

Tailboom from 0.4 mm balsa
Ø 5 x 170 mm





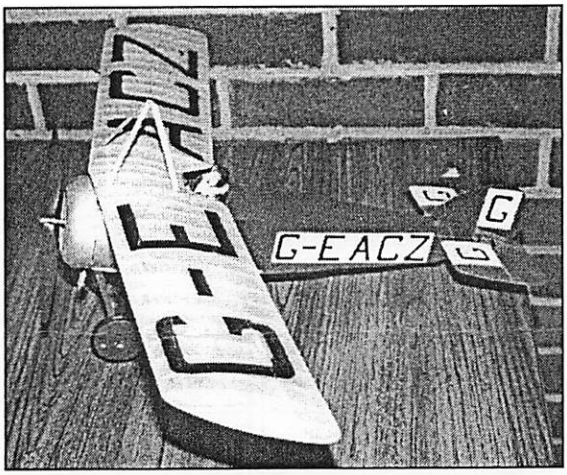
Enlarge Drawing 1.41 x and glue together

CASSUTT NO-CALL

DESIGNED AND DRAWN BY GERT BRENDEL

Loire 411 by Jacques Cartigny
A second visitor from France to the event was Jacques Cartigny, who brought with him some models of interesting French subjects, including this very unusual dive bomber. Construction was foam, so it was very light, and it flew well. Combined with the fourth best static score, this was good enough to net Jacques 3rd place in the peanut scale class, and the novice award.

Sopwith Scooter by Kevin Wallace
Not a new model this, but I think first time at the BMFA Nationals. Power is supplied by a Gasparin GM 120 CO_2 motor. The model flies very realistically - not too fast, despite it having one wing less than most Sopwiths! The first flight was a little too good, as the model kept climbing until it was amongst the roof girders - unfortunately it met one head-on, and plummeted to the ground. This damaged the motor, so a piston and ring change had to be carried out. Kevin got everything running again in time for his third and fourth flights, which went without a hitch, and he was rewarded with fourth place in class, and the novice award.



Sopwith Scooter Photo by Mike Stuart

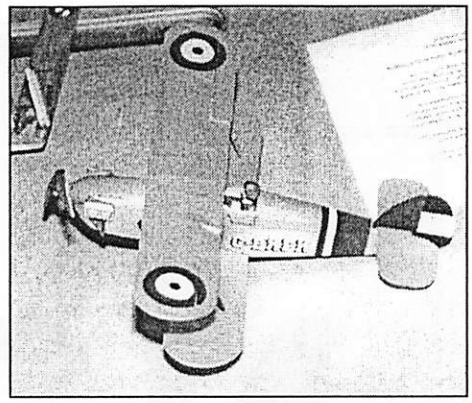
Gloster Javelin by Steven Glass
Crowd pleaser of the event was again Steven Glass with his amazing electric ducted fan foam Gloster Javelin. This year he was doing ROG's with it! The main reason he only finished sixth in class was that the landings were rather bouncy (almost a series of touch-and-go's). He hit the wall hard on the final flight and broke the nose off, which was a shame, but I am sure it will be flying again soon.

Junkers Ju 87 by Reg Boor
Believe it or not, this Ju 87 entered in the open rubber class is basically the old Keil Kraft kit. It flew well, and looked very stable in the air. When I built one of these kits in my younger days, I have no recollection of it flying at all!

Bowers Fly Baby by Dave Hanks
Dave was a very happy man after he finally got a qualifying flight with this electric powered model - he had been trying to get it to take off most of the previous evening, and the effort paid off on the Sunday. As you can see, a nicely detailed model.

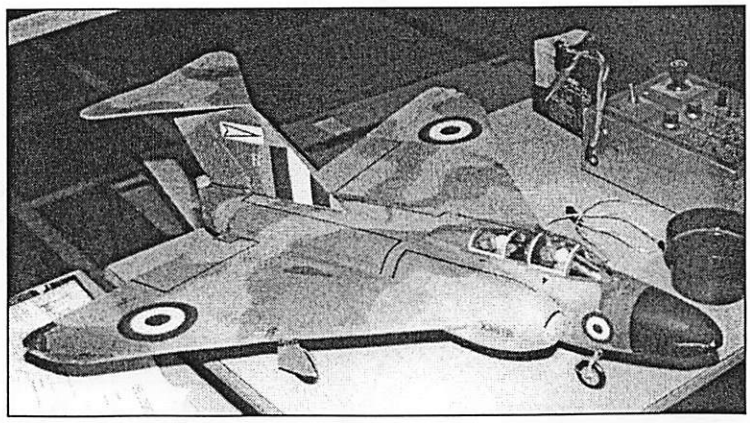
Stearman by Peter Boys
An extremely delicate pistachio scale model, with very impressive engine detail. Unlike many pistachios, wings were double-covered, which makes them look much better, at the expense of extra weight. The model got the highest Pistachio static score, but unfortunately, problems with the trim resulted in disappointing flight times, otherwise the model would have featured higher in the results.

Avro Triplane by Philip Davis
A nice light foam $C0_2$ powered model which performed well, despite almost no dihedral. Flight speed was leisurely - almost scale, though the turn was perhaps a bit tight. An attempt to open out the pattern on the final flight resulted in a major collision with the wall - just one of the risks of indoor flying. Happily, damage did not look too serious.


Isaacs Fury Photo by Mike Stuart

Bernard 191 by Bryan Stichbury
This nicely finished model was flying well in the peanut scale class.

Isaacs Fury by Mike Hadland
Mike had a very successful day winning both the Peanut and Pistachio classes. His successful model in the Pistachio class was a Tiger Moth, but this Isaacs Fury is a new model, which was being given some test flights at the meeting. The finish was immaculate, as always from Mike, and it will be another potential winner when sorted.
The peanut winning Bucker Jungmann was the same model entered last year, and it is as near to a perfect compromise between scale detail and flying performance as I have seen. Static marks were the second best in class, beaten only by Divs Masters' new SE5a, and the model flew for just under a minute, giving the second best flying marks.


Gloster Javelin Photo by Mike Stuart



Cessna Caravan Photo by Mike Stuart

Cessna Caravan by Mike Stuart

This photo shows the Caravan as it appeared at the Nats, with a scale prop and pitot tubes fitted to try and get a few more marks from the scale judges! Static marks were only average, but it flew very well, and kept away from the walls all day.

Results Summary BMFA Indoor Scale Nationals 2001

Pistachio Scale		*8 entries, 6 flew*
Position	**Name**	**Model Type**
1	Mike Hadland	D.H.Tiger Moth
2	Divs Masters	SE5A
3	Nick Peppiatt	Lippisch Storch
4	Peter Boys	Stearman
5	David Prior	Bede BD.4
6	Bryan Stichbury	Zlin 50M

Peanut Scale		*19 entries, 17 flew*
Position	**Name**	**Model Type**
1	Mike Hadland	Bucker Jungmann
2	Andre Petit	Denight DDT
3	Jacques Cartigny	Loire 411
4	Mike Stuart	Bucker Jungmeister
5	Nick Peppiatt	FRED
6	Divs Masters	SE5a

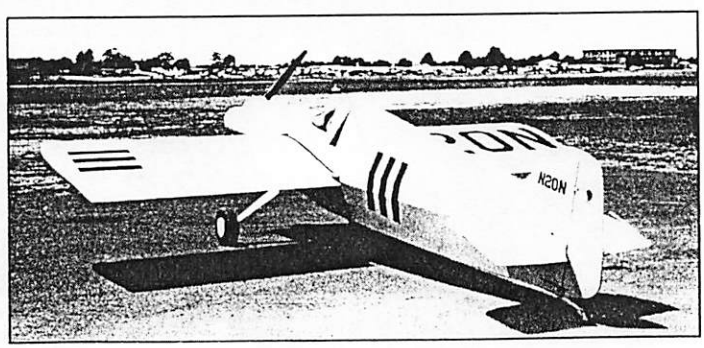
Open Rubber		*12 entries, 11 flew*
Position	**Name**	**Model Type**
1	Divs Masters	Sopwith Triplane
2	Andre Petit	Messerschmitt Me 209
3	Mike Stuart	Cessna Caravan
4	Phil Siddall	Valkyrie
5	Vibes Masters	Lacey M.10
6	Chris Strachan	Granger Archeopterix

CO_2 / Electric		*16 entries, 14 flew*
Position	**Name**	**Model Type**
1	Richard Granger	English Electric Wren
2	Peter Smart	Rumpler Taube
3	Dave Causer	Sopwith Camel
4	Kevin Wallace	Sopwith Scooter
5	Derek Knight	Bristol M1C
6	Steven Glass	Gloster Javelin

About the Cassutt M111 Racer

Tom Cassutt built his first number 111 in 1954. His second "Model 2" was 111 using race number 11, and was built in the basement workshop of his Huntington, Long Island home. He started work on his designs in 1951 and its first flight was in 1954. Number 11 raced just once in 1959 at Fort Wayne, IN. The second plane was 30 pounds lighter than the first. He sold it to Captain Jan Christie who took fifth place in the Fort Wayne finals. Tom finished third in the Dansville, NY meet in 1954 and 1956, and second in 1957. He also ran second at Fulton, NY in 1958. He had named it "Jersey Skeeter" and won at Fort Wayne in 1958, and placed second at Fulton that same year. It took him only four days to draw up plans for the 11 M and 111 M which he sold for only $20, selling 120 sets. At Fort Lauderdale in 1969, ten of the racers that qualified were Cassutts built from his plans. So far 26 Cassutts have raced or have been modified to race. N-111V, race number 11, went to Norway and became LN-TVT "minimum Viking."

And today, the Cassutt is still available as a kit and it is up to the homebuilder to choose what level of construction, as plans or parts are also available. It's construction of steel tube, wood, fabric and fiberglass make it one of the easiest aircraft to build.



About the CargoLifter Hangar

In November 2000, CargoLifter completed the hangar that will house the CL 160 airship. As you can imagine, the hangar has to be enormous to house such an airship. The hangar in Brand, Germany, is one of the largest self-supporting hangars in the world. It is about 1,200 feet (360 m) long, 700 feet (210 m) wide and 350 feet (107 m) tall. Here are some other interesting facts (from www.cargolifter.com):

- Nearly 1.4 million cubic feet (40,000 cubic meters) of concrete were used to secure the foundations for the over-arching steel girders that make up the hangar's frame.
- 14,000 tons of steel were used for the arch construction.
- A three-layer polyester-fiber membrane is stretched between each of the five steel arches.
- Each side has a shell-shaped door that can open up to 660 ft (200 m) wide.
- The hangar holds 194 million cubic ft (5.5 million cubic m) of space.

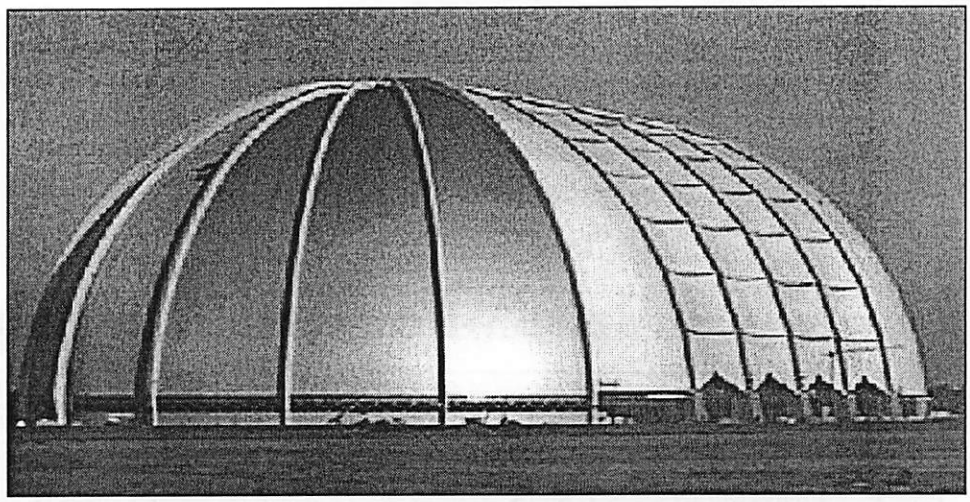


Photo of the CargoLifter Hangar Photo by CargoLifter

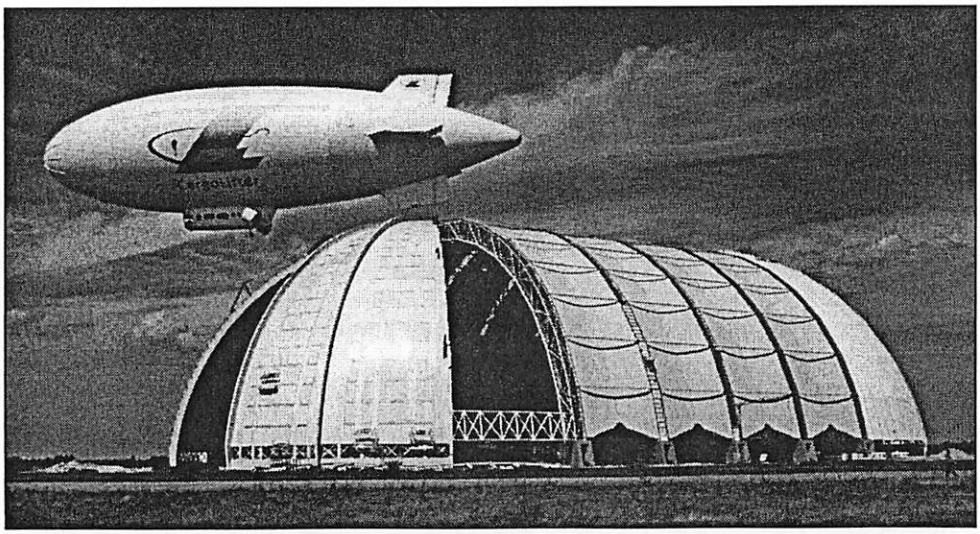
About Indoor flying in the CargoLifter Warft

Rules for flying

1. Admitted only are model aircrafts up to a weight of 40 gs with rubber motor, CO_2 engine or electric drive.
2. Pilots must be members of DAeC or have a valid FAI-licence. They must be insured in case their model aircraft causes an accident.
3. Written pre-entry is requested. Registration all day in the warft.
4. Entry fee per person is (in 2001) DM 15,- for adults, DM 10,- for students, DM 8,- for pupils up to 15 years (same as for normal visitors). The fee has to be paid on arrival only once for the whole weekend.
5. In the building the contest director of the day has the say, in accordance with the management of the warft.

Contact

Visit the websites *www.thermiksense.de* and *www.freeflight.de* for topical diary. To attend training weekends or the International German Indoor Championships contact the chairman of Free Flight Aeromodelling in the DAeC e.V.



Another view of the CargoLifter Hangar Photo by CargoLifter

How to find and enter the warft

The former Russian Airfield Brand and the CaroLifter Warft southerly of Berlin are situated close to Autobahn 13 between cross Königs Wusterhausen in the North and triangle Dresden in the South. Take Exit Nr. 6 Staakow. A few kilometres easterly the road passes the trainstation Brand and leads straight to the airfield. Security is informed and shows the way to the carpark in front of the hall. Door to the ground floor will be opened by security in the building.

Where to stay overnight

A nice place to stay is Köthen am See, with two inns and a Youth Hostel. Ask for groupprices!

- Pension „Schafspelz" (with restaurant), Dorfstr. 16, 15748 Märkisch Buchholz OT Köthen. Phone 033765-80396 (Single room DM 70, breakfast not included).
- Gasthof „Zum Köthener See", Dorfstr. 17, 15748 Märkisch Buchholz OT Köthen. Phone 033765-80520.
- Jugendherberge, Dorfstr. 20, 15748 Märkisch Buchholz OT Köthen. Phone 033765-80555, (Bed & Breakfast DM 27, for juniors DM 22).

March 2001 Test Flying Session in CargoLifter Hangar

By Jonas Romblad

Here a summary of my impressions after flying in the CargoLifter hangar (a magnificent NEW airship hangar near Markisch Buchholtz about 40 km south of Berlin, Germany) in March this year. We are all hoping that this magnificent site will be available for international contests and even a World Championship. Let me start to say that the external weather conditions were probably as bad as they can get.

On Saturday we had about +4 °C and a fair wind blowing on one of the large doors. The hangar is not insulated and is heated to about 18 °C by floor heating and/or huge radiators hanging on the walls. The result was a rather strong drift close to the ground. However, the drift dropped off very rapidly with increasing altitude. At 5-6 meters the difference was clear, at 10-15 meters the drift was manageable and above 20 meters the conditions were quite smooth. I had a flight of 23:47 with an F1L which landed about 100 meters from the launch point without any steering. The model peaked at approximately 60 meters altitude.

On Sunday the weather got much worse. The temperatures dropped to about +/- 0 °C and throughout the day we had snow or sometimes rain. The wind was a bit less than on Saturday. This meant the hangar "shell" was practically water cooled to 0 °C while the heating kept the inside air at around 18 °C! The low level drift was even stronger than the previous day. The most striking difference to the day before was the appearance of strong vertical air currents. These were of a much larger scale than I have ever seen in any airship shed. Here the model would suddenly gain five meters of altitude during one or two circles and a bit later on loose height just as quickly. Several times my F1D flew into small patches of rising air which lifted the nose 45-60 degrees and sent it on a 4-6 meter tail slide. Again the conditions at altitude were much more smooth than at ground level, but the air currents made flight times inconsistent. Walking with an F1D was sometimes a real challenge. Many of the German fliers attending the meeting were used to low flying sites and found it hard to climb out of the drifty and turbulent air below 20 meters. Consequently they felt the conditions were really disappointing. Personally I am much more positive.

For sure Sunday was really bad, but considering we were flying in a tent being water cooled from the outside and heated to a temperature almost 20 degrees higher than the wall temperature, I were surprised to be able to fly at all.

The conditions on Saturday were quite flyable. As long as the models climbed above 30 meters they were fine... And please remember it was winter outside! I believe the conditions in the Cargo Lifter will be excellent once the outdoor temperatures climb above 10-15 °C. The site is so large that even a bit of drift can be handled without too much problems. I am really looking forward to flying there in the warmer half of the year.

As you already know, I brought two F1D models built following the drawings of Bernard Hunts Big Square. Unfortunately I only flew F1D on the Sunday, but the results were really encouraging. The best flight was 27:02, but what was very impressive was the flight pattern. After launch, the model went into a perfectly vertical climb for the first 10 meters and then made a very smooth transition to a steep climbing spiral. The model peaked at an altitude estimated to be 80 meters or higher and binoculars was a really good help in following it.

Results CargoLifter Hangar Contest 10th. June 2001

On the 10. of June, there was another test contest in the CargoLifter. The results are printed below.

Klasse F1L ("EZB"; 1,2 g min., Gummi frei)					
Place	Contestant Name	Country	Best 2		Total
1.	Uwe Bundesen	GER	19:30	20:03	39:33
2.	Mikita Kaplan	CZE	18:53	17:11	36:04
3.	Bruno Wächter	GER	15:30	17:51	33:21
4.	Ladislav Feifer	CZE	15:06	17:41	32:47
5.	Jan Dihm	POL	14:08	16:13	30:21
6.	Klara Kaplanova J	CZE	14:12	14:14	28:26
7.	Gabriela Kaplanova J	CZE	12:06	11:11	23:17

Klasse Mini Stick (7" max. lang und breit)					
Place	Contestant Name	Country	Best 2		Total
1.	Bruno Wächter	GER	08:12	09:04	17:16

Klasse F1D (1,2 g min., 0,6 g Gummi max.)					
Place	Contestant Name	Country	Best 2		Total
1.	Jan Dihm	POL	22:39	26:49	49:28
2.	Edward Ciapava	POL	25:40	20:45	46:25
3.	Jerzy Markiewicz	POL	17:19	18:58	36:17
4.	Thomas Merkt	GER	19:21		19:21

Klasse F1M ("Beginner"; 3 g min., 1,5 g Gummi max.)					
Place	Contestant Name	Country	Best 2		Total
1.	Uwe Bundesen	GER	16:21	17:57	34:18
2.	Bruno Wächter "Ltd."	GER	12:16	13:56	26:12
3.	Jindrich Rachota "Ltd."	CZE	06:39	06:47	13:26

A few kilometres further is the small town Märkisch Buchholz. Here you can stay at:

- Garni Landhotel, Am Wiesenweg, 15748 Märkisch Buchholz. Phone 033765-84906.

Nearest to the CargoLifter Warft is the small village Krausnick with a new conference hotel.

- Landhotel Krausnick, Dorfstr. 94, 15910 Krausnick. Phone 035472-610 (Single room DM 85, breakfast included).

For more information, please contact : Fremdenverkehrsverein Märkisch Buchholz, phone 033765-80635.

Results International German Championships

Cargo Lifter Hall, Brand, Germany – 13th. and 14th. October 2001

	F1D (41 part.)						
	Name	Last name	Nat	Jun	Fl. 1	Fl. 2	Total
1	Schramm	Lutz	GER		34:25	33:03	67:28
2	Kuttler	Peter	GER		35;32	31;51	67;23
3	Green	Ron	GBR		35;25	31;20	66;45
4	Tipper	John	GBR		33;30	31;39	65;09
5	Siebenmann	Dieter	SUI		33;19	31;32	64;51
6	Treger	Ivan	SVK		32;40	31;09	63;49
7	Keller	Peter	SUI		31;39	31;31	63;10
8	Hunt	Bernhard	GBR		31;25	30;12	61;37

	F1L (28 part.)						
	Name	Last name	Nat	Jun	Fl. 1	Fl. 2	Total
1	Tipper	John	GBR		27;07	27;02	54;09
2	Jones	Geoff	GBR		26;35	25;50	52;25
3	Barr	Laurie	GBR		25;03	24;55	49;58
4	Hunt	Bernhard	GBR		23;49	23;38	47;27
5	Wilson	Roy	GBR		23;20	23;03	46;23
6	Derek	Richards	GBR		22;24	21;28	43;52
7	Bundesen	Uwe	D		22;49	21;01	43;50
8	Treger	Ivan	SWK		22;04	20;52	42;56

	F1M						
	Name	Last name	Nat	Jun	Fl. 1	Fl. 2	Total
1	Barr	Laurie	GBR		19;47	18;51	38;38
2	Lotz	Rainer	D		19;04	18;38	37;42
3	Schlosser	Benno	D		17;04	16;57	34;01
4	Bundesen	Uwe	D		17;06	16;48	33;54
5	Tipper	John	GBR		17;08	14;49	31;57
6	Hasselmann	Johannes	D	J	15;41	15;37	31;18
7	Nimptsch	Werner	D		15;34	15;10	30;44
8	Wächter	Bruno	D		15;09	14;05	29;14

	F1M	limited					
	Name	Last name	Nat	Jun	Fl. 1	Fl. 2	Total
1	Schlosser	Benno	D		15;39	15;21	31;00
2	Lotz	Philipp	D	J	14;35	14;29	29;04
3	Hasselmann	Johannes	D	J	14;06	13;54	28;00
4	Feger	Jens	D	J	14;01	13;50	27;51
5	Wächter	Bruno	D		13;13	12;15	25;28
6	Luxemburger	Jürgen	D		10;20	09;54	20;14
7	Steigerwald	Friedbert	D		09;47	09;17	19;04
8	Viezeus	Ekkehard	D		08;51	08;01	16;52

	35 cm (P1)						
	Name	Last name	Nat		Fl. 1	Fl. 2	Total
1	Bailey	Bob	GBR		33;19	32;03	65;22
2	Tipper	John	GBR		30;19	28;18	58;37
3	Lefever	Jeof	GBR		24;51	24;01	48;52
4	Nimptsch	Werner	D		22;34	21;30	44;04
5	Strattner	Werner	D		20;34	20;02	40;36
6	Viezens	Ekkehard	D		13;10	12;43	25;53
7	Klinck	Alfred	D		15;34	00;00	15;34

Results Tournai 2001

	PISTACHIO SENIOR		Model	Stat	Vol
1	David Christophe	F	Blérot 25 canard	96	96
2	David Christophe	F	Santos Dumont 14 bis	98,5	47
3	Masters Divs	GB	SE 5A	89	55
4	Prior D	GB	Bede 4	61	59

	F4F PEANUT SENIOR (21 part.)		Model	Vol	Stat
1	David Christophe	F	Sopwith Tabloid	122	173
2	Masters Divs	GB	Sopwith	100	199,5
3	Leveque Michel	F	Santos Dumont 14 bis	87	201
4	Patat Francis	F	Poullin JP30	110	135

	F4E MAQUETTE CO2		Model	Vol	Stat	Total
1	Masters Divs	GB	SE 5A	459,5	1334	1793,1

	F4D MAQUETTE CAOUTCHOUC		Model	Stat	Vol	Total
1	Prior D	GB	Sopwith Baby	1631	613	2244
2	Masters Divs	GB	Sopwith Triplan	1319	552,5	1871,5
3	Reg. Boor	GB	Tunder Bold	1381	488	1869
4	Masters Vibes	GB	Lacey M10	924	617,5	1541,5

	F1L EZB SENIOR		
1	Nimptsch Werner	D	1548
2	Bogaerts Jean	B	1474
3	Roch Edmond	F	1136
4	Lemaitre Daniel	B	970

	MICRO 35 SENIOR		
1	Nimptsch Werner	D	2170
2	Roch Edmond	F	1346
3	Lemaitre Daniel	B	858
4	Stichbury Brian	GB	606

	SAINTE FORMULE		
1	Nimptsch Werner	D	406
2	Delhalle Bernard	B	285
3	Lemaitre Daniel	B	212

	F1D Beginner Microfilm		
1	Nimpsch Werner	D	1624

	F1M SENIOR		
1	Roch Edmond	F	1266
2	Patat Francis	F	756
3	Leveque Jean Claude	B	337

Results Bordeaux International Contest

On June 2nd. and 3rd. 2001, an international indoor contest (which was the French Championships at the same time) was held in Bordeaux in a hall of 37 metres high. The best 5 of each class appear in the results tables below.

F1D					
Nr	Name, First Name	Country	Best 2		Total
1	Bailey Bob	UK	0:31:34	0:32:17	1:03:51
2	Keller Peter	CH	0:29:51	0:28:43	0:58:34
3	Tipper John Kevin	UK	0:28:17	0:26:36	0:54:53
4	Medina Mangas Daniel	ESP	0:26:45	0:27:57	0:54:42
5	Lefever Geoffrey	UK	0:26:21	0:22:41	0:49:02

F1L					
Nr	Name, First Name	Country	Best 2		Total
1	Tipper John	UK	0:21:25	0:22:52	0:44:17
2	Bayley Bob	UK	0:20:45	0:20:55	0:41:40
3	Jones Geoffrey	UK	0:18:08	0:20:32	0:38:40
4	Medina Mangas Daniel	ESP	0:18:13	0:19:18	0:37:31
5	Green Michael	UK	0:17:12	0:17:29	0:34:41

F1M					
Nr	Name, First Name	Country	Best 2		Total
1	Bayley Bob	UK	0:17:38	0:18:09	0:35:47
2	Keller Peter	CH	0:17:13	0:17:40	0:34:53
3	Lefever Geoffrey	UK	0:15:48	0:16:36	0:32:24
4	Jones Geoffrey	UK	0:15:37	0:15:56	0:31:33
5	Ducassou Francois	F	0:15:24	0:15:00	0:30:24

Micro 35 Séniors					
Nr	Name, First Name	Country	Best 2		Total
1	Tipper John Kevin	UK	0:25:42	0:27:10	0:52:52
2	Lefever Geoffrey	UK	0:23:50	0:20:26	0:44:16
3	Frugoli Francis	F	0:20:15	0:21:27	0:41:42
4	Champion Robert	F	0:18:46	0:17:43	0:36:29
5	Green Michael	UK	0:18:39	0:16:23	0:35:02

Micro 35 Juniors					
Nr	Name, First Name	Country	Best 2		Total
1	Yronde Clement	F	0:14:48	0:15:27	0:30:15
2	Thomas Felicien	F	0:09:51	0:09:52	0:19:43
3	Touze Mathieu	F	0:08:09	0:09:45	0:17:54
4	Breton Guillaume	F	0:07:53	0:08:24	0:16:17
5	Dessomme Mathieu	F	0:08:20	0:07:55	0:16:15

Micro 35 Cadets					
Nr	Name, First Name	Country	Best 2		Total
1	Gauthier Stanislas	F	0:11:03	0:10:37	0:21:40
2	Amicel Guillaume	F	0:10:07	0:11:07	0:21:14
3	Cesbron Samuel	F	0:09:51	0:08:56	0:18:47
4	Marlier Lucas	F	0:09:39	0:08:58	0:18:37
5	Marlier Hugo	F	0:08:56	0:08:46	0:17:42

British Indoor Duration National Championships

Cardington, Bedfordshire - 26th. and 27th. August 2001

F1L (1.2 gram EZB) Best single flight to count		
1	Laurie Barr	23:03
2	Bob Bailey	22:10
3	John Billam	18:00

F1M Best single flight		
1	Laurie Barr	15:40
2	Mike Green	15:31
3	Bert Spurr	14:01

First team trials F1D for World Championships		
1	Ron Green	34.06
2	Bernard Hunt	34.00
3	Bob Bailey	32.35

This is the first year that the new rules F1D models will be flown in trials. Min. weight is now 1.2 g and 55 cm wingspan; max rubber weight is 0.6 g.

Unofficial Mini-stick contest		
1	Tom Chambers	12:18
2	Roy Wilson	10:54
3	Urlan Wannup	8:41

Results of the Florence Open, January 2001

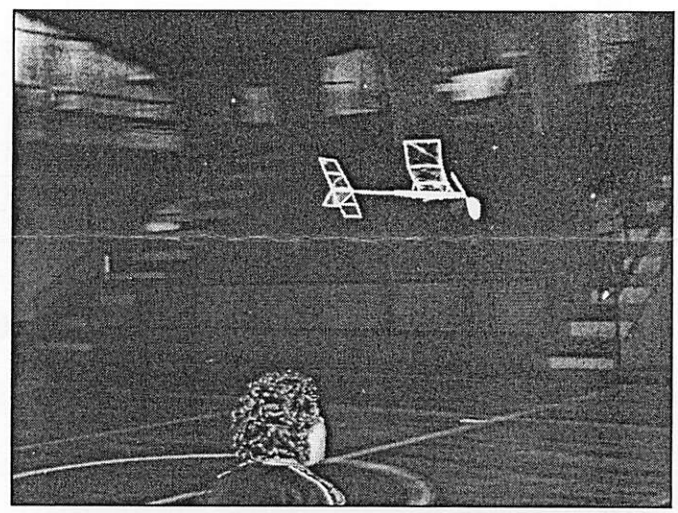
F1M				
Nr	Name, First Name	Best 2	Flights	Total
1	De Angelini, Giacomo	08:38	09:22	18:00
2	Negri, Vittorio	07:58	09:21	17:19
3	Tabellini, Renzo	08:00	08:36	16:36
4	Vaccaro, Silvia	05:55	07:35	13:30
5	Fanfani, Licio	05:05	06:40	11:45
6	Pianigiani, Franco	03:55	05:28	09:23
7	Sighelle, Nello	04:55	03:40	08:35

TH - 16 part.				
Nr	Name, First Name	Best 2	Flights	Total
1	De Angelini Giacomo	06:28	06:28	12:56
2	Tabellini Renzo	05:37	05:45	11:22
3	Toschi Adriano	05:30	03:45	09:15
4	Pianigiani Franco	04:11	05:02	09:13
5	Sighelle Nello	04:41	04:12	08:53
5	Pizzi Giuliano	04:18	04:35	08:53
7	Vaccaro Silvia	04:49	03:47	08:36
8	Bartoli Claudio	03:47	04:32	08:19

F1N - 10 part.							
	Name, First Name	Best 3 Flights			Subotal	Fly Off	Total
1	Scatena Giacomo	32	31	32	95	27	122
2	Giovannelli Simone	31	32	32	95	19	114
3	Bertolani Benito	29	29	31			89
4	Franceschi Vincenzo	23	25	24			72
5	Scott Ian	21	14	18			53
6	Gazzarrini Vittorio	3	2	3			8

Ministick - 14 part.				
Nr	Name, First Name	Best 2	Flights	Total
1	De Angelini Giacomo	04:55	05:01	09:56
2	Manieri Fabio	03:55	05:40	09:35
3	Negri Vittorio	04:24	04:54	09:18
4	Tabellini Renzo	04:20	04:41	09:01
5	Bertolani Mariella	03:48	04:10	07:58
6	Scatena Giacomo	03:04	04:43	07:47
7	Vaccaro Silvia	03:19	03:32	06:51
8	Bartoli Claudio	02:50	02:58	05:48

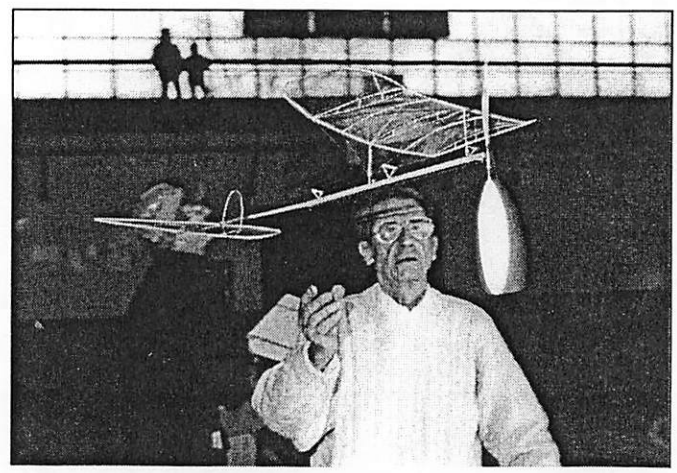
Concorso di		"Fun Fly"	
Nr	Name	**Model**	Votes
1	Negri Vittorio	TIR bimotore	122/150
2	Borellini Matteo	Modello scuola	103
3	Tallarico Alberto	Pipistrello	86
4	Baldecch.i Renato	Pegleg Ike 1938	82
5	De Angelini Giacomo	Elicottero	81



15 years old Giacomo Scatena watches anxiously; his Ministick model is about to touch down after his best flight of 4:43.

11th. Florence Indoor Open International Contest

The 11th. edition of this contest will be at 20th. January 2002. The site is a sporting hall with a 9 meter smooth ceiling and galleries at both sides. The classes are: F1M (with unlimited rubber), TH (35 cm, 2 grams), Ministick, F1N (Hand launch glider), Catapult and a Fun Fly too. This last is ruled with an innovative procedure, by introduction of the model to (interpreter supplied by the organisers) and jury's remarks about originality, difficulty and visual result of flight, without timing. Foreign competitors are very welcomed and low price lodging facilities are planned (hotel near the hall or private rooms or hostel). A sporting license is not required. Contact: Carlo Pesciolini c/o Gruppo Aeromodellisti Fiorentini, P.O. Box 18250, 50100 Firenze, Italy. Email:jacopopesciolini@hotmail.com, tel. (+31) 055221625



Franco Pianigiani launches his neat F1M model.