

INDOOR NEWS AND VIEWS

Bud Tenny

June 1960

In the last issue we hinted that year-round indoor activity in the Dallas area was about to become a reality. In a subsequent "extra" we announced the start of regular indoor flying sessions at the Walnut Hill Recreation Building, Walnut Hill Lane at Midway Road. Mention was made of plans to set up perpetual plaques as awards for flights which boost the high time at our new site. These plaques are still in planning.

The first flying session produced the longest flight at a flying session so far - 6:23 with a B Paper Stick. "Baby Bee" models were up to 3:20, flown by Juniors. All the long flights were "ceiling scrubbers".

Our second session had a little more activity, even though the session was held in the middle of the week. High times were about half a minute behind the first session, inspite of higher performance capability of some of the models. Two and one half hours seems to be the bare minimum of time to really "zero in" on flight trim. The "Baby Bee" models were up over 4:00, with 4:16 tops for them at the present time.

For those who haven't heard the details of our new site, the ceiling is 20' 6" high, with flush lights and no obstructions over the area of the basketball court. Drift at night is usually negligible, but uneven heating by the sun causes drift in the daytime. There are bleachers for spectators and there is lots of space around the edges for boxes and equipment. This is an excellent place to learn the fine points of indoor, and we are getting very good co-operation from the people in charge. We can repay our debt to them by attending in force, wearing soft-soled shoes, and keeping our mess cleaned up.

NEWS OF FAI ELIMS

So far, we don't have an Eastern correspondent, so we don't know who won the Elims there. Joe Bilgri won the Western brawl with 32:40, and Lew Gitlow was second with 31:50. The Central Elims was a wild one - Carl Redlin - 24:28.4, C. Sotich - 24:25.2, Bob DeBatty - 24:18.9, Phil Klintworth - 23:51.8, Dick Kowalski - 23:33.2. Real close!! Since Joe Bilgri made the team, Kowalski thinks he might get to go as team manager.

INDOOR WOOD

Some of you have seen Gilflow's latest mimeo letter - he made a real good offer. For \$3.95 he has a beginner's assortment of wood consisting of a minimum of 25 sheets. Our assortment was 27 sheets, some 1/16, some 3/64, lots of 1/32, 1/64, 1/100, plus a couple of .022" sheets. This is not his best wood, but well worth 14¢ a sheet. For anyone contemplating starting indoor or helping a bunch of boys get started, this is a real good deal.

INDOOR MODEL BOXES

After talking to several of the more serious flyers in the area, we found we weren't the only ones with a problem of storing and carrying indoor birds, particularly the big ones.

After careful investigation, we decided to try heavy cardboard boxes. We tried discarded instrument shipping boxes, which were so large that we put four models in each one. After carrying four models to a contest to fly one, we decided that individual boxes were a better solution.

A local container manufacturer was contacted, and the boxes we had in mind were quoted between \$3 and \$4. If at least twenty boxes were ordered at the same time, the price dropped to about \$2 per box. These boxes are like a shoe box with a liner in the bottom, and the lid is as deep as the box. In effect this gives a double layer of heavy cardboard all around the model except part of the top. The price is reasonable,

and the boxes make a neat solution to the problem. The boxes pack into cars easily, and only one model is exposed at a time when flying.

We designed three boxes, class B - 11"x25"x10", Class C - 13"x30"x10", and class D - 16"x35"x10". These are large enough for one model, several props, and a container for motors. The boxes come knocked flat, and must have the flaps taped down. We also glued the flaps together, and glued the bottom liner down, but this operation is a minor job. Drop us a line if you're interested in these boxes.

FLIGHT TESTS ON PROPS

Since the prop-motor combination is so important to long flights, we have started a series of experiments with propellor design, using our B Paper Stick as a flying lab. This model has 92 sq. in. wing area, weighs .055 oz. without the prop and motor, and measures 11" between the hooks.

As a starting point, flight times were recorded with prop #1 at the first flying session in the Walnut Hill site. Three flights with 1600 turns in a 15" loop of .055" Pirelli gave 5:58, 6:01, and 6:23. From 2' altitude to the ceiling took about 18 seconds, and the flight dragged on the ceiling for over 3:00 each time.

Prop #2 was developed from #1, with lots of flare built in. #3 was modified from Dick Ganslen's B Paper prop. Both #2 and #3 controlled the climb well enough that there was no dragging on the ceiling, and the props didn't hit very often. Apparently tip vortex action from the props was high enough to keep the model off the ceiling.

The flight tests were made one Saturday at Walnut Hill with special permission, and we spent 2½ hours with the model down long enough between flights to change props and motors. Several different motors were used to let the Pirelli rest between flights, even though we weren't using maximum turns. Plans for the props are on the last page.

Prop	Motor	To Ceiling	Total time	Turns	Comments
#2	.060x11"	2:07	6:07	960	Stalling, ½ row of knots
#2	.060x12½	:23	5:38.6	1200	prop wobble
#2	.060x12½	:18	6:13.3	1200	fixed wobble
#2	.060x13½	1:03	3:41	960	Yea Gods!
#2	.060x13½	1:07	3:53	1050	Oh Well
#2	.060x13½	:43	5:10.5	1120	slight stall on climb
#2	.060x13½	:42	5:02	1250	long stretch on wind
#2	.060x13½	:34	5:12.1	1200	short stretch
#2	.060x13½	:44	4:57	1280	long stretch
#3	.060x11	:32	7:00.7	1200	dead stick
#3	.060x11	:32	5:11	1200	hit obstruction
#3	.060x13½	:57	3:32	960	stalling
#3	.060x13½		3:30	960	didn't reach ceiling
3#	.070x11	:18	5:24	880	dead stick, hit wall
#3	.070x12½	:28	4:49	880	prop wobble & stall
#3	.070x12½	:34	5:05	880	dead stick

CONTESTS AND FLYING SESSIONS

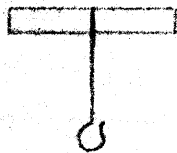
Category I Record Trials - Sanction #553 June 10 - 10 AM till 6 PM
Last chance at Category I records until fall. Site and events to be announced. Special event for "Baby Bee" planned.

Walnut Hill flying sessions 7 PM to 10 PM. Bring watches, wear soft shoes, Keep area clean.

June 16, June 30, July 14, July 28, Aug. 11, Aug. 25. Its a Ball!!

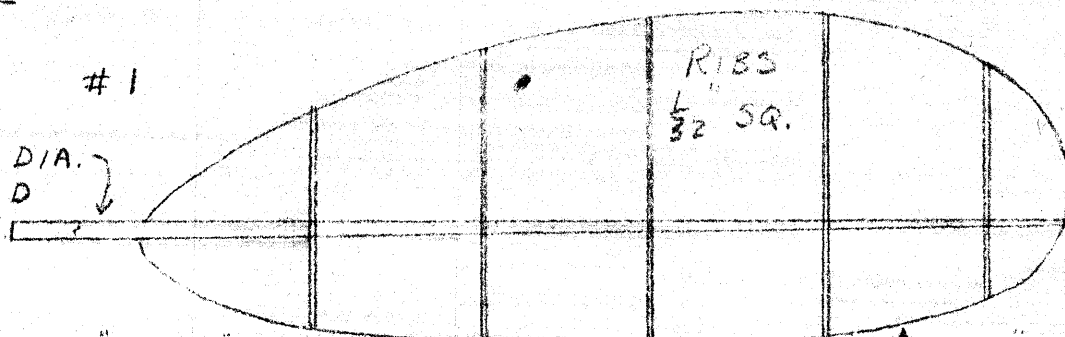
Nats Warmup - Organized flying session to trim Nats ships. Category II site - to be announced. Will be sanctioned. July 15????

HUB FOR #1 & #2



#1

$\frac{3}{32}$ " DIA.
TAPERED



.024" x .032"

.024" x .032"

TIP OUTLINE
#3 FULL SIZE

#2

RIBS
.024" x $\frac{1}{64}$ "

$\frac{3}{32}$ " DIA TAPERED

CUT AWAY TOP SPAR AFTER
ASS'Y

$1\frac{3}{4}$ "

$\frac{1}{8}$ " RIB SPACING

$\frac{5}{8}$ "

5"

#3 (HALF SIZE)

BUILD ON $\frac{1}{8}$ " x 2"
TRIANGLE

#1 & #2 built on a $1\frac{1}{8}$ " x 2" x 6" block ala' Bilgri. The hub is an 8" strip of jap tissue rolled with thinned glue on a $\frac{3}{32}$ " dia. form. Blade stubs fit tight in hub at desired pitch angle, may be spot glued.

#3 is built like any two spar prop on $1\frac{1}{8}$ " x 2" triangle. the hub filler is glued in after the diagonal

L. E. pieces. By cutting away top spar, the prop will flare more. Sand L. E. thinner to equalize flare, or increase it. keep ribs light so they will flex. Wood sized not too important on these props, rear spar must be stiff, front spars control flare to a large degree. Experience with your wood is key to matching flare to model and ceiling. Use $\frac{1}{8}$ " minimum camber on all these ribs, keep covering loose enough for flare.

APRIL 1961

INDOOR NEWS AND VIEWS

BUD TENNY

CONTEST NEWS

CONTEST NEWS

According to the Category I record information we have, there were two records set at the Eagles' Record Trials. Nickey Jones made application for a Junior B Stick record of 3:58.4, and Dutch Antonisse applied for a Senior B Paper Stick record of 3:42.8. This was the first model Dutch had ever built, and his first contest.

Nickey Jones showed patience in learning to live with his B Stick model. Each time it hit an obstruction it would spin in. All his official flights were low, but on his record flight he trimmed to stay below the beams, and made almost four minutes. Good flying!

The FAI Round I Practice Session is now history, and it was one of the most enjoyable sessions we've had all year. The temperature was ideal, and the air in the Drill Hall was pretty calm. Without the usual contest pressure, everyone had a good time and a lot of models got trimmed for the FAI Elims.

Dicky Mathis and Ken Querman demonstrated the systematic approach to trim, with very good results. Dicky started with flights of less than three minutes and went up to 7:19. His early flights went almost to the rafters, but the long one barely cleared the lights. Furthermore, almost every flight was made on the same number of turns! This is the type of flying that is needed for high time in low ceiling work. At this rate, Dicky will be one of the top contenders for low ceiling records.

Ken went one step farther with the systematic approach and made notes on the conditions and results of each flight. The fact that he has been flying the same model for about two years, and has done over 7 minutes in the Drill Hall shows the value of a reliable model and systematic trimming methods.

Karl Ridenour showed the possibilities of small airplanes as he worked his 34 square inch B Tissue up to 4:59 before the fuselage broke. It will be interesting to watch this Junior and see how he does in lower ceilings.

CATEGORY I RECORD SUMMARY

EVENT	JUNIOR	SENIOR	OPEN
H.L. GLIDER	0:36.9	0:31.8	?
HELICOPTER			
ORNITHOPTER			1:06.8
AUTOGYRO			
A R.O.G.			
B PAPER STICK	4:07.0	3:42.8 (pend.)	9:26.0
B STICK	3:58.4(pend.)		7:64.0
B CABIN (R.O.G.)			
B CABIN (R.O.W.)			
C STICK			14:01.0
C CABIN			
D STICK			

As you can see from the chart above, the Category I record list is still incomplete 5 months after the Category was set up. There are over 25 records just begging to be set, if this information is right. It is up to us to get on the ball, before the WIMAC boys spot the open door. Will we let California beat us to the punch, or will we prove to them that we know how to fly model airplanes in Texas also?

The way to do it, as was demonstrated at the FAI Practice Session, will be to fly regularly in low ceiling sites. Part of these flying sessions can be in less than 20' ceilings. By trimming for maximum flights in the low, low ceilings, the records will be easy marks when we move over to a good site.

That last point is important enough to repeat. Just as with any type of model, regular flying sessions produce the maximum performance a model is capable of. Regular sessions will cause the unreliable models to quit or get fixed, and the best importance of prop and motor will be found for each model. Don't worry too much about the weight, just learn about that particular model and trim for the maximum time under the low ceilings.

NOTES ON THE PARLOR MITES

At the FAI Practice Session, our Parlor Mite flew for over 3½ minutes on the first flight. It climbed almost to the ceiling and landed dead stick from 1200 turns at launch. The trim wasn't changed from flights in our living room, and no further effort at trim was made.

This flight seems to indicate that three minutes is possible in our living room, but 2:36 is the top so far. It must burn up too much power dragging the ceiling. At present, the climb from 2' to the 8' ceiling takes about 7 seconds. If the climb can be stretched to about 30 seconds without losing the present 1:45 average, we will have made a good start toward low ceiling technique.

The best props so far have been about 5 3/4" diameter and fairly low pitch. If flare can be built in also, the initial torque burst should spread out and help the cruise. Drifting into obstructions is still the major cause of low times, but this is part of the game.

The "BABY B", a 43 Square inch relative of the Parlor Mite can be flown in the living room. In a four-flight series just finished, three of the flights were longer than 2:15, and the fourth flight ended in a corner at 1:47. Since this is a legal model for competition, and can be built in about four hours, we ought to set up an event around this model or a similar one just for fun. This one has been a lot of fun in the past 24 hours.

COMING INDOOR FLYING SESSIONS AND CONTESTS

April 9 - FAI Round I Eliminations. Livestock Coliseum in Fair Park, Dallas. 10 A.M. until 6 P.M. Category II record trials if there are enough timers. There is a trophy for high time and a trophy for the high Junior flight.

Middle of April - Indoor Session in Garland - Tentative

April 30 - Cliff Model Clubs Category II Record Trials. Dallas NAS Drill Hall. 9A.M. until 4 P.M.

NEWS OF INDOOR SITES TO COME

In Garland, the new community house will be a 30' arch which stretches out about 70' across the base. Apparently the ceiling will be pretty clean, with only light fixtures to hang on. This one probably will be easy to get.

In Richardson, the new high school gymnasium will be 28' of very clean ceiling. This should be the site which will enable us to beat Wilmington at their own game. We have been assured that this will be available, but we don't know just what the cost will be.

The Greenville Avenue Gym, site of the Eagle's Record Trials, will not be turned into a bus barn as had been rumored. It will continue to be available for flying sessions and contests.

Steps are being taken to try to get the Livestock Coliseum on occasion for Category II Record Trials. This one will probably have to be sponsored from outside sources due to the cost.

Richardson is building a new youth community center and we are trying to find out if there will be indoor facilities there.

Has anyone checked into the Poly Youth Center in Ft. Worth? We hear that there is a fairly high ceiling in that building. This might be a prime Ft. Worth Category I site.

Someone needs to check into the North Side Coliseum in Ft. Worth to see if it can be used. We hear that it was several years ago.

Arlington State College is closing in the beams in their gym. We need to find out what the new ceiling height is and if this site can be used for indoor.

With this many good sites available to us in this area, we can become the most active indoor area in the country. Let's do it!

INDOOR NEWS AND VIEWS

MAY 1961

BUD TENNY

The time is rapidly approaching when the concept of year-round indoor activity for this part of the country will become a reality or else fall by the wayside.

It appears that recent developments may make it possible to have one Category I and two Category II sites in Dallas at little or no cost. In addition, a practicesite may become available twice a month.

The key to success or failure for this program will then be our participation. All those concerned with scheduling indoor events agree that the indoor sessions should not conflict with other model activities. In order to prevent conflict, indoor activities might be scheduled as 4-6 hour sessions on Friday or Saturday evening.

If the program catches on, it may well be that everyone who wants to fly indoor will have to attend the summer sessions to keep up with the state of the art.

Early this season, less than six minutes was good for first place in the Drill Hall. At the next contest, 6:18 was tops. The practice session for FAI resulted in a top time of 7:19. 9:57 won the FAI Elims, but this was an out-of-town contestant. The highest local time was 7:56.5, and eight of the official flights were longer than 7:20. Two of these flights were B Paper Stick models, and one was a Junior with a C Stick.

The point of the statistics is that the improvement leads us to expect that 6 months of monthly contests will produce 8-9 minutes in Category I, over 11 minutes in the Drill Hall, and over 15 minutes in the Livestock Coliseum if it becomes available. Furthermore, we don't expect the increased performance to come from newer and better models, but from better prop-and-motor combos on existing ships. If a model has proved to be stable and consistent, there is probably no reason to junk it until every possible flight trim and power combe is tried.

The models which win consistently will be those that are flown most often under widely varying conditions. Just as it takes a lot of flights in both wind and calm to trim an outdoor model, temperature, humidity, obstacles, and air conditions will have to be accounted for. Few of us really know just what our rubber is capable of, and the field of props is wide open.

PLANS SERVICE

Since there are only a few kits available for indoor work, we have decided to set up a plan service. Available now are the Parlor Mite, Baby "B", and the EASY "B". These are good beginner models, fall together quickly, and fly very well.

We have Dick Ganslen's B Paper Stick model, from which we can work up plans if it's OK with Dick. This is the model which succeeded to boost the Open B tissum record to 8:57 at the FAI Elims. Dick thinks this model is capable of over 10:00 in the Coliseum, and we agree.

Carl Summers has agreed to furnish plans for his B Paper, which is a compact, high performance model that uses no wire bracing. His high time so far is 7:57 in the Coliseum.

If anyone is interested, we will loan copies Dick Kowalski's "Detroitter" (C Stick) and B Paper models. Both these models currently hold records, and both fly well in the hands of beginners. It would be nice if someone would volunteer to transfer these plans to tracing paper so they could be duplicated easily.

CONTEST NEWS

The FAI Elims had a very good turn-out, both contestants and spectating modelers. Thanks to Bill and Betty Bell and their crew, Bill Chennault, and several others, we had a light work load and were able to spend most of the day flying. Flight Times were:

9:57.0 - Jerry Hughes	8:23.1 - Dick Ganslen	7:56.5 - Kit Bays
7:54.5 - Jerry Murphy	7:47.5 - Carl Summers	7:36.8 - Bud Tenny
7:25.9 - Ken Querman	7:20.5 - Nickey Jones	6:12.3 - Dick Mathis
5:23.2 - Tommy Walker	4:39.6 - Karl Ridenour	4:38.4 - Mike Fedor
3:10.1 - Don Chancey		

In contrast, the letter we got from Lew Gitlow the other day gave the following results of the Moffett FAI Elims: Rambo - 35:53, Gitlow - 32:40, Bilgri - 27:16, Cover - 26:37, Aronson - 25:19. These are category III flights by the old masters and real good times.

Three indoor contests in 48 hours! That really kept us hopping to keep up. Friday night - Parlor Mite contest at Cliff Cloud Climbers meeting to raise money for trophy fund. Basic rules: 10" max span, paper covered, all-balsa prop. We had a ball, and nine contestants went over 2:00 under the 12½' ceiling. 1st - 2:38.6 - Jerry Murphy, 2nd - 2:33.5 - Dick Mathis, 3rd - 2:32.3 - Bud Tenny. 17 entries total.

Saturday evening the Garland Aeromodelers held a small contest with a big list of events. Seventeen entries were made in 6 events. Top times in 24' ceiling, everyone taking it easy for the contest the next day. As usual, mike HLG times were tops, but the Aeromodelers fought it out among themselves with balsa birds. This stirred up a lot of indoor interest in Garland.

The Cliff Model Club's Sunday contest capped off the trio with over 20 contestants. The results thru 2nd place were:

Junior HLG
0:42.1 Nickey Jones (mike)
0:29.3 Don Chancey (mike)

Senior-Op. HLG
1:03.3 Dick Mathis (mike)
0:33.1 Ken Dougan (Balsa)

Junior Rubber
3:40.8 Don Chancey (mike)
3:23.0 Karl Ridenour (B Paper)

Sr.-Op. Rubber
7:37.8 Jim Clem (B Paper)
6:18.8 Dick Mathis (C)

Helicopter (Special event)
1:04.4 Kit Bays

We goofed and didn't get 2nd place time

The usual wide variation between mike and balsa HLG shows up here. It hardly seems fair for Ken to get 3rd after a hard day's work to get a real nice time like that. We're not knocking mike HLG, we just favor peaceful co-existence instead of competition between two different

types of models.

Rubber was hard-fought all morning and part of the afternoon until Jim Clem showed up. In true modeling tradition, his bird was finished except for bracing about 5 A.M. Sunday morning. On the 5th flight off the drawing board, rubber was all sewed up by this fine flying model. Jim is no newcomer to indoor, in fact his prop was older than about half the contestants "on Deck". This flight is high time for the Drill Hall, and this is the slowest flying paper model we've seen. The rate of sink during let-down is very low. We will probably see a new B Paper record soon.

Also worthy of comment was the close rivalry between Dick Mathis and Ken Querman. Ken was only 2.7 seconds behind Dick and pushing hard. It seemed that this contest was decided by who got hung up on their best flight. There were so many models hung on lights and beams that Ken hardly had time to fly all day, since he used his long pole to retrieve the models. Everyone in the area owes Ken a vote of thanks for this service.

INDOOR SUPPLIES

MicroDyne Precision Products
715 East D Street
Ontario, California

Jem Supplies
2979 Dudley
Lincoln, Nebraska

Bernie's Hobby Shop
209A W. Jefferson
Dallas, Texas

Richardson Hobby Shop
116 E. Main St.
Richardson, Texas

MicroDyne and Jem give good service on mail orders, and their catalogs are well worth having just for the handy hints and indoor info they contain. Edgar Seay, 108 South Lee St. in Irving is now cutting indoor wood to your specs. If we've overlooked any local hobby shops, please contact us and we will correct the oversight.

COMING CONTESTS

A sanction will be applied for for Category I Record Trials on June 10. The site and events will be announced as soon as possible.

We also plan a Nats Warm-up session with Category II Record Trials a few weeks before the Nats.

EVENT	CATEGORY II RECORDS		
	JUNIOR	SENIOR	OPEN
HL GLIDER			
HELICOPTER		1:03.3 (pend.)	0:24.0
ORNITHOPTER		0:24.6	0:37
AUTOGYRO			
A R.O.G.			
B PAPER STICK	10:29.7	6:38.1	8:57
B STICK		7:56.5 (pend.)	15:19.0
B CABIN			
B R.O.W. CABIN			
C STICK	7:20.5(pend.)		19:50.0
C CABIN			
D STICK			

INDOOR NEWS AND VIEWS

JULY 1961

BUD TENNY

When Bill and Betty Bell left on their way to Florida, modelling in this area suffered quite a loss. We don't mean that model activity will lessen, or become less important, but this area is losing two of the most active model enthusiasts we have known. Bill and Betty are active in so many types of model activity, and have made their activity felt in so many places, that we will all miss them. To our knowledge, the Bells have never refused to help with any model event if it were humanly possible for them to help.

The members of the Ft. Worth Jacs will have cause to miss the Bells even more than other groups in this area. In the Jacs Bill and Betty have built up an extension of their own fierce competitive spirit and sense of fair play. We are sure the Jacs will continue in this spirit, and we hope they remain one of the most active clubs in Texas. We wish the Bells the best of luck in their new home and community, but we are sorry to see them go. Their address: General Delivery, Del Ray Beach, Florida.

NATIONAL RECORDS

Indoor flyers in this area have set nearly 15 Category I and Category II records this year. Since we haven't had consistent flying at contests and record trials, and sanctioned events have not been on a regular schedule, this is quite an achievement.

By now, many indoor records have reached astronomical times, and future records will be much harder to set. The possible exception will be those events which require a special airplane. Few people will build just for a record, so some categories will take a while.

Although the Nats are held in a good Category III site this year, we doubt there will be many records broken at the Nats. However, we predict that the top five places in Open Paper Stick will be over 20:00, and the top five places in Open Stick will be over 30:00. If indoor flying continues to grow at the present rate, the event may take more than one day to run off at future Nats.

CONTEST NEWS

The beautiful free flight testing weather attracted some indoor flyers away from the June 10 Record Trials, so there were only eight AMA license holders present. Karl Ridenour test flew his new B Paper with a borrowed prop, and made several flights over four minutes, and one flight over six minutes.

Our own B Paper struggled up to 7:05 with the #3 prop which had been modified to increase the flare. The leading edge had been thinned quite a bit, but we overdid it. Flight tests seemed to indicate that the best rubber size would have been .065", but we were out of it.

Jim Clem and Ken Querman were also out later in the afternoon. Jim turned 6:10 with a #3 type prop and the same loop of .055" Pirelli he has been using for some time. When he gets up nerve enough to use .060 on that 20 year old fuselage, we should see some new times.

Ken brought out something new - three and four blade props. As you watch one of these props, you get the impression of much higher RPM than they really turn.

We noticed that the drift which had plagued us once before during the prop tests never built up. Since the air conditioners hadn't been on at all that day, there probably wasn't enough temperature differential to start the drift.

LOW ASPECT RATIO?

A couple of letters from Dick Ganslen have reported experiments with low aspect ratio wings. He implies that all else being equal, the flight speed and the prop RPM are lower on low aspect ratio wings.

There are some theoretical considerations which would support the idea of increased efficiency on low aspect ratio wings. First, even though low speed aerodynamics is not well defined, a more favorable Reynolds Number exists on the wider chord. If the C. G. is forward and the angle of attack is higher, the lift/drag ratio should increase, and then the flight speed could be lower. Probably only a series of flight tests would prove anything about this layout from the design standpoint.

Certain practical considerations make the low A/R design more attractive also. For a given area, the spars and structure can be lighter because of the shorter moment arm for flight loads. Consequently, the bracing can be less elaborate for a featherweight wing with sufficient rigidity. The low A/R should result in a short coupled airplane with better stall recovery, tighter turn, and better rough air handling, which is advantageous for low ceiling models. For the mike ships, it is easier to pour a short, wide sheet of film, and you need less work bench space to maneuver. We feel there are enough potential advantages to warrant a test model. That comes sometime after the Nats!

LIQUIDS AND STUFF

Since January we have tested several types of liquids for use on indoor models - microfilm, balsa glue, and stickum for condenser paper. By now we have arrived at several preferences which may be of interest.

Actually, we use several different types of glue in building a single model. Thinned Ambroid is fairly good for most uses, but it is heavy and tends to pull thin balsa. However, we use it exclusively to mount thrust bearings and motor hooks.

For framework and fuselage construction, we use MicroDyne Cement and our home brew interchangeably. The home brew is made as follows: Put one 15¢ tube of Testor's "B" cement into a 2 oz. jar, add 1 teaspoon of Ambroid, $\frac{1}{2}$ teaspoon of flexible collodion, and fill the jar with Butyrate thinner. The result is a thin glue which makes a strong joint and leaves no visible fillet. For comparison, Micro Cement also shrinks without pulling, but leaves a slight trace of fillet. Both are very good for almost any construction work. We also keep Jement around for glueing prop spars to forms and wings to bracing jigs. It holds tight, but can be easily cut loose when desired.

Condenser paper can be fastened down with many things, but our favorite is old microfilm solution. If you have a batch which has aged and you don't trust it, keep it and try it for covering paper models.

Microfilm solutions are numerous, but our experience has been that the ones easy to handle are not as durable as the new "Dry films". Most nitrate films are easy to handle and easy to pour, but don't last a long time on the model and continue to shrink.

The best nitrate film we have used apparently was originated locally by Frank Krystinik. The formula: 12 parts nitrate dope of brushing consistency, 4 parts flexible collodion, 2 parts amyl acetate, 1 part castor oil. This is excellent film to practice handling and covering with, and it pours easily on room temperature water.

The two dry films we've tried are Jemfilm and MicroDyne Film. Both make a film which can be deadened over heat or aged for some time on the hoop, both are lighter than nitrate films of equal thickness, both can be rolled in jap tissue for field repairs, and both are hard to pour big sheets with.

Jemfilm as it comes in the bottle seems to need a little castor oil added for easy pouring, about 3 drops/15 cc. By adding the oil, we increased the ease with which the film spread, and the final film

was a little softer until it was deadened over heat. But these films are strong! We have a hoop of blue and green film which has held and bounced a dime many times. Our Class C wing was once accidentally hit edge first by a sheet of typing paper - no damage! We don't recommend this test for microfilm, but this time it passed.

So far we haven't been able to pour a 35" sheet of MicroDyne Film, but tests have shown that the water temperature is very critical. The color of the finished sheet also seems to depend on the water temperature. One thing about this film - it spreads much better than Jem-film. However, we have had trouble with the front of the spreading sheet wandering off to one side and producing a discontinuity in the finished sheet which tears when the film is picked up.

If anyone has completely mastered the technique of pouring either of these dry films, let us know and we'll pass it on. These films are hard to get used to - they stay loose on the model like condenser paper. They can also be used to cover like condenser paper, but you have to learn to quit breathing while you do.

FAI TEAM COMPLETE

Right after the June issue, we received a card from Pete Sotich which stated that Bill Bigge of Washington, D.C. qualified in the Eastern Elims at Lakehurst with 30:35.8. From other sources we hear that Dick Kowalski has been appointed team manager. We wish the best of luck to Joe Bilgri, Carl Redlin, and Bill Bigge in their trip to Europe late this summer.

JUNE FLYING SESSIONS

Both June flying sessions at Walnut Hill were a little sparsely attended, but the air was still crowded with models at times. New prop tests at the June 16 session pushed our high time to 7:20.4. Edgar Seay and family were out to help time, and Edgar, Jr. was keeping records on all the flights made.

The June 30 session was the best from the standpoint of quality, if not quantity. Jim Clem had rigging troubles after a late start, but we are still impressed with the potential this model has. Jim's fixing to go into business for himself, and this keeps him plenty busy. Terry Hamer got his 70 sq. in. paper model going, dead stick at 4:45.5.

Our Nats Paper Stick managed to hang up six times out of seven, but that one flight pushed the high time to 7:36.3, landing with less than a row of knots in a 14" loop of .065 Pirelli.

CONTESTS AND FLYING SESSIONS

NATS WARM-UP - JULY 14, Dallas NAS Drill Hall, 6 PM * 10 PM. Sanction has been applied for, so there will be Category II Record Trials. Note that this cancels a flying session at Walnut Hills.

WALNUT HILL FLYING SESSIONS: July 28, Aug 11, Aug. 25. 7 PM - 10PM Walnut Hill Lane at Midway Road. Wear soft soled shoes, bring stop watches and winders. Present high time - 7:36.3.

LATE WILMINGTON NEWS

Dave Copple reports that their June 9 Record Trials (Category I) brought out Frank Cummings in A ROG @ 9:54, and Jim Kagawa in B Paper @ 11:25. He also reports much indoor activity in Wichita, Kansas, but no details.

AUGUST 1961

INDOOR NEWS AND VIEWS

BUD TENNY

INDOOR IN FT. WORTH!!!

Since Guy Rogers attended the Nats Warm-Up session, he has been busy on locating sites in Ft. Worth. There are several possible sites, and the first session is in the Rosedale Recreation Building west of Poly High School on Rosedale St. in Ft. Worth. It should be a really top site, come on out, bring stop watches and winders, wear soft-soled shoes. For further info contact Bud Tenny at AD 5-2212 or Guy at JE 5-7533. The time is this Friday, Aug. 4, 7 to 10 PM. Continued use of this site will depend upon attendance.

INDOOR AT THE NATS

Everyone who is anyone in indoor flew at Lakehurst on Monday - and several who are definitely on the way up did their stuff also. For us, the first time in a "big barn" was a real thrill. By the middle of the day, the place was crowded enough that it was hard to fly.

We busted out on our predictions - but the men in the know are agreed that the high humidity was the reason for the low times. It rained outside a couple of times, there were even out-of-sight indoor flights when the lights failed. Luckily our D Stick was low enough on the official flight that we could keep it in sight by the feeble light from the windows in the hangar doors.

Our Paper Stick collapsed when Tom Finch (Cat. I A ROG record) wound it the way it should be wound. The D flight lasted 20:28.5, which tickled us much. That was 14th out of 48 entries, strictly little league, but we still walked on air for a couple of days.

Impressions and tidbits from the indoor Nats --- Big 300 D's took over in Stick - Bilgri's winner typical - .060 oz., 8" chord, 5/16" deep ribs, 21"x38" prop, blueto gold film, Joe said the heavier film was used because he shipped by Air Express---Finch prefers braced props for FAI in big barns - 140' climb in 2½ min., then cruise---the Detroit flyers used flare even in the hangar---Bob DeBatty had a C Prop like our #2 (prop article in the June issue) - sez extreme care in picking wood is necessary to equalize flare---Our D and one other the only low A/R birds we saw - most were 6½ to 7 to 1 A/R---Lew Gitlow's film very popular, but Carl Redlin's models used Kowalski's film - Dick promised to send some after the trip to Europe so we can try it.

Kowalski said weight isn't real important for competition - his record holding C Cabin was way over the typical .048 oz.---well braced and trimmed ships much better than featherweights for competition---Dick has built C Stick at .027, they last one day at Record Trials - the light weight comes from careful picking of light wood and real light film. With red-green film our 220 D picked up .007 oz. - could be .003.

Many people using very light film---Gitlow reported to be using lighter than gold-bronze film---Finch's A ROG 15" span, 9" prop, .025" Pirelli, weight minus motor - .009 oz.!! Cummings reported to have one about .007---Finch planning real light 300D for Moffett Record Trials - about .055 with 22"x40" prop on 17" loop of .080 and 2000 turns - RPM predicted to be 45. Will have short stick for lighter weight - 15" stick and 14" boom.

We helped Bob Champine of Virginia repair crumpled D Wing - real tricky without jig---watched awe-struck as he deliberately cut 1/32" out of spars and re-glued them to loosen the bracing wires - the high humidity had swelled the wood until the bracing was too tight---we learn something new every day, even if we don't believe it!

NATS RESULTS

7:23.4 CABIN

JR. - Joe Salateny - ~~6:59~~; Sr. - J. Baggi - 13:50.9; Open - Kowalski - 23:01.4

HAND LAUNCHED GLIDER

JR. - Salateny - 0:59 SR. - Baggi - 1:07.2; OPEN - Ron Wittman - 1:14.5

PAPER STICK

JR. - S. R. Stackhouse - 11:37.5 SR. - David Ullman - 13:26
OPEN - Phil Klintworth - 18:21; Kowalski - 17:54; A. Rohrbach - 16:47;
Ed Stoll - 15:59.9; T. Zongoph - 15:46

STICK

JR. - Dennis Kargol - 10:22 SR. - J. Baggi - 20:56.6
OPEN - Bilgri - 33:16; James Grant - 31:53; Ron Plotzke - 31:05;
Klintworth - 29:46.6; Kowalski - 29:31.6

NATS WARM-UP SESSION

The July 14 Nats warm-up session produced a larger number of participants than any previous summer session. There were some new-comers to the scene who will make it tough to win indoor contests coming up.

Guy Rogers and Tom Lloyd came over from Ft. Worth, each with at least one microfilm bird. Tom's small C was beautiful built, but his high ceiling prop made it climb like the Sultan FF Tom is known for. After hanging it in the lights twice, Tom gave up until he could build a new prop.

Guy Rogers brought a Parlor-Mite sized paper job which did nearly 4 minutes a couple of times, but his Featherette stole the show. He took it easy at first, then really leaned on the winder. It came down at 6:58.4 with over a row of knots left. Guy was a little disappointed until he found a glob of cobwebs in the thrust bearing. Wonder how long it would have flown without the payload?

Our own ships trimmed in OK for the Nats, with 7:30.4 on the D, and 7:56.3 on the Paper Stick. We were careful to keep the D below the top railing on the balcony by using low power, but the high time on the Paper Stick was with 1200 thurns.

Dave Wilson was out, and did his top time for the Drill Hall at 5:05. Dicky Mathis had prop trouble all evening - school is keeping him off the bench about now.

Several of the HLG flyers were out also, and we were chased by mike Tow line gliders also. Don Chancey's balsa gliders were really racking up the time, including one flight of 0:40.8. Dunno how he does it, but it sure is good.

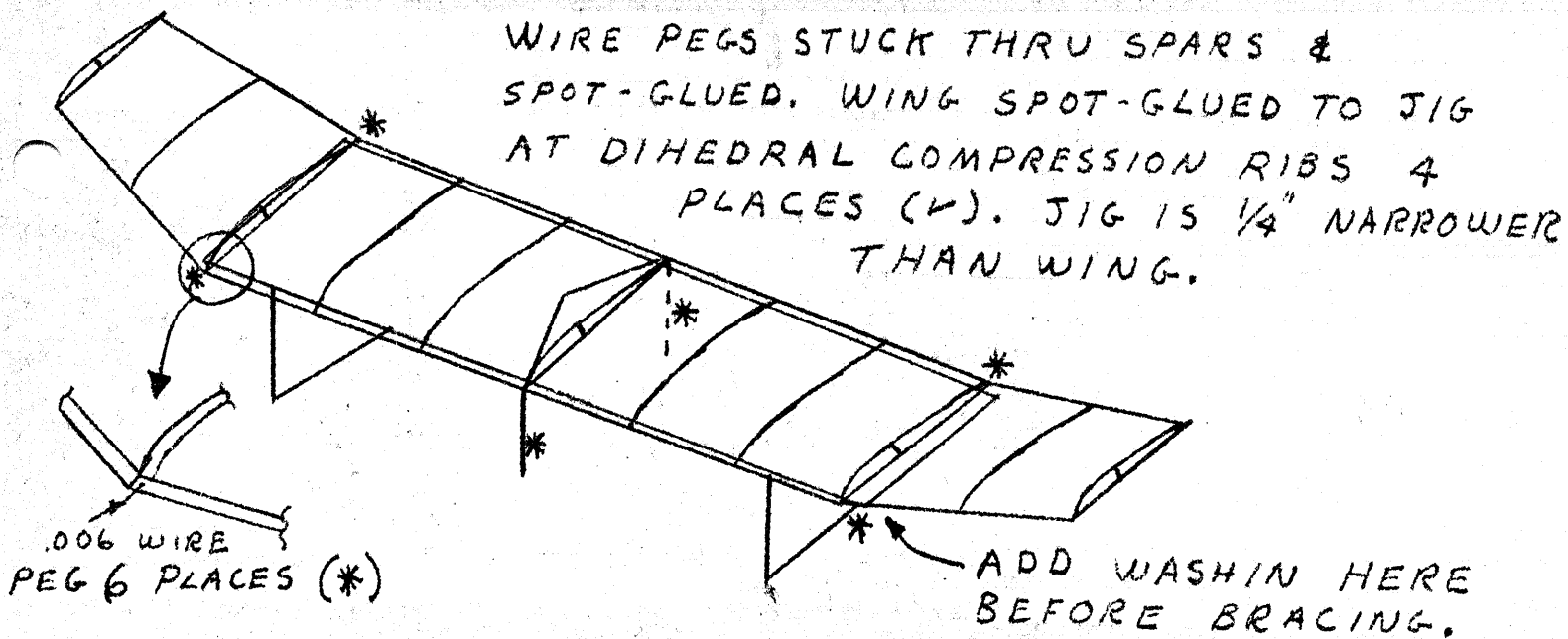
WALNUT HILL SESSIONS

Our first session at Walnut Hill was cancelled by the Drill Hall session, and information is skimpy about the July 28 session. However, Guy Rogers came over from Ft. Worth, and Richy Earle came out with a very neat Paper Stick. We predict that Richy will be one of the tough seniors to beat in months to come. Jim Clem had top time for the evening, after reworking the bracing on his model. His flight of 7:20 fulfills our hopes for that model, and when he gets a new boom that model may be another toughie again.

INDOOR TRIM

For some time now, most of our airplanes have been flying with the C.G. behind the 50% point. This wasn't intentional, our new props were lighter than the early ones and we didn't retrim the ships.

When the Nats Paper Stick and our A ROG came along, they were balanced ahead of the 50% point. Test flights pointed out a surprising (to us) fact - flying on the verge of a stall isn't the best trim. By lowering the incidence in small steps, we improved the climb and gained about 20% during the cruise. The new C.G. point is also less critical.



BRACING INDOOR MODELS

All of the more fragile indoor models depend upon bracing wires in a variety of configurations for part of their strength and most of their alignment. Anyone who wishes to build very light and reliable indoor models will have to cope with bracing wires sooner or later.

Several people have commented to us on the anticipated difficulty of bracing a model. Since we're the lazy type, we usually use shortcuts for most of our building. Actually, if the need arises, primary bracing can be added to a wing in about an hour.

Bracing jigs are almost a necessity to ensure alignment of the wing and to furnish a handle to move it during the bracing. In the simplest form, a jig is a heavy cardboard or balsa platform braced for rigidity and alignment, and equipped with legs for support. The jig must be constructed so both wing posts are visible during bracing to check for alignment. (See sketch above)

One of the shortcuts we mentioned is to use small wire pegs where the wire crosses the framework (see sketch). These pegs furnish a place to hook the wire before the wire is glued, so the tension can be equalized in all the bracing. The real time saver in using the pegs is that the bracing wire can be cut to length, weighted on one end, and the entire wing strung with one operation.

One end of the wire can be glued to the wing at the right front corner, then the wire strung across the bipod to the left rear corner, down to the peg on the rear post, up to the right rear peg, across the bipod to the front left corner, down across the peg on the front post, and across the peg at the starting corner. Let the weighted end of the wire swing free and check that the wire is in place on all pegs and all segments of the wire have the same tension. Then glue the wire in place at each peg and the job is done.

INDOOR FLYING SESSIONS

WALNUT HILL RECREATION BUILDING - 7 PM to 10 PM Aug. 11, Aug. 25
Walnut Hill Lane at Midway Road - Dallas

ROSEDALE RECREATION CENTER - 7 PM to 10 PM Aug. 4 for sure, Aug. 18????
West of Polytechnic High School on Rosedale St. - Ft. Worth

INDOOR NEWS AND VIEWS

BUD TENNY

August 15, 1961

EXTRA! EXTRA! EXTRA!

We received post cards almost simultaneously from Pete Sotich and Phil Klintworth relating details of the FAI Indoor World Championships held in England last week. We Won!!!!

Individual Placings

1st - Bilgri - 37:49 (U.S.)
2nd - Rieke - 35:11 (Germany)
3rd - Bigge - 34:56 (U.S.)
4th - Hamakainen - 33:03 (Finland)
5th - Read - 32:48 (Great Britain)
6th - Henell - 32:00 (Germany)
7th - Redlin - 30:58 (U.S.)

Team Totals

1st - United States - 103:31
2nd - Finland - 94:09
3rd - Germany - 89:32
4th - Great Britain - 76:08
5th - Hungary - 57:56

At the Nats, conversation with some of our team members indicated that Great Britain was considered to be the major contender for top times, especially in view of intensive flying at Cardington by members of the British team.

It would appear that the unpublicised practice session in Lakehurst for our team paid off well. Although it was said our team was taking it easy during the practice session, they were turning over 30 minutes.

Another bit of startling news from Pete's card was the flight Max Hacklinger of Germany made after the contest was over. This was probably the longest indoor flight ever made - 44:20. We presume this will be recognized as a new FAI record, and it is a mark which will stand for some time. This is even more outstanding if the flight was made with a FAI class airplane, since the big 300's here haven't done over 40 minutes, unless this happened at Moffett last weekend.

COMING INDOOR SESSIONS

Walnut Hill - August 25 7-10 PM. Bring watches, winders, wear soft soled shoes. Richy Earle upped the building record to 8:42 with a B Paper Stick - better come loaded for bear!!!

Sycamore Park Recreation Building - Rosedale St. at Sycamore Park in Ft. Worth. Tentative - August 18 7-10 PM. Building record is 7:24, set by Richy Earle. Call Guy Rogers at JE -5-7533 for more details.

157.24

27.65

129.59

157.24

As we near the end of the first summer of scheduled indoor flying in this area, it is time to take stock of our past efforts. There were seven Walnut Hill flying sessions and two at the Sycamore Park site in Ft. Worth. The average attendance has been about eight flyers with ten models between them, and an average of ten spectators not counting the extra modelers who helped wind and time. From past experience we can say that twelve or fourteen flyers at one of these sessions would be a crowd, since there is not a lot of floor space to work with. Even then, no one would get to fly a lot, since five models in the air at once is taking a lot of chances with good models.

Class B Paper Stick models have been on the top of the heap, since everyone had one and flew them enough to find out what they would do. Richy Earle's "El Cubo" (our Nats design) now holds the Walnut Hill high time at 8:42, and the Sycamore Park record at 7:57. Almost no one has been regularly flying microfilm models except Guy Rogers and Tom Lloyd, who have some of the prettiest models we've seen.

The sport of flying indoor models is losing the status of step-child all over the country, and is definitely on the upswing locally. All of the clubs in this area who plan indoor contests this season will benefit from the summer sessions, whether they participated or not.

It is probably significant to notice that all the members of the U. S. Indoor Team came from areas where indoor flying is considered to be a serious sport rather than something to do when the weather is too bad to do anything else. Although this area fielded two members of the FAI FF teams, none of the Texas indoor flyers made sufficient showing to warrant a trip to Detroit for Round II.

There are several modelers in the area who enjoy indoor flying but refuse to take it seriously, contending that year-round indoor conflicts with outdoor contests. However, the clubs in the Detroit area and in California mix indoor and outdoor successfully. And in California at least, there are outdoor contests at the rate of about two each weekend all year around. Maybe it is an accident of birth or geographical location, but California's achievements in all phases of modelling seem to be the result of taking all types of models seriously. Surely, in this area where the activity is far less, we have the ability to mix the various types of models without strain.

At the end of the last indoor contest, Texans held quite a few indoor records. From that good start, we have fallen so far behind it will be difficult to ever catch up. Our excellent record in outdoor flying has not resulted from flying at only two or three contests each year, and never making test flights and holding informal flying sessions. If the rest of the United States ever hear of Texas indoor flyers, it will be the result of regular scheduled activity month after month, rather than a mere twenty-four hours of flying in three contests a year.

MORE FAI NEWS

The month's mail brought more news of the FAI Indoor Finals in a letter from Dick Kowalski. In spite of getting the models to Lakehurst OK, all the U. S. Team models were damaged during the trip to England. The damage was minor for Bilgri and Bigge, but Carl Redlin had major repairs to make. Proof that the repairs came out OK is that Carl made the high time of the first practice session with 32:23.

All thru the meet, drift across the hangar was a problem to all the teams. Drift spoiled Redlin's flight in the third round, putting him into the wall 138' high at over 26:00 and spoiling an almost sure 40:00 flight. This held Carl to eighth place with his first round flight of 30:58. Both Bilgri and Bigge caught the drift in the second round, with 6:15 and 18:26 respectively.

By sifting thru the info Dick sent, we found the best flights by rounds to be: First round - Bigge - 33:07; second round - Bigge - 34:56 (his best); third round - Bilgri - 37:49 (high time of the meet).

From Dick's account, it could have been almost anyone's meet right up to the end. If Max Hacklinger's flight of 44:22 had been during the contest instead of his best official flight of less than 23:00, Germany would have won by about four minutes. Incidentally, Max's flight was with a FAI model and is both a new German record and a new World record.

Other FAI news: Bilgri has resigned as Indoor chairman, apparently has recommended Kowalski to replace him. Dick says there will probably be some changes in FAI Indoor scoring, possibly there will be six flights with no delayed flights and score the top two. This sounds like a good thing for AMA indoor also. So far there is no indication whether there will be FAI Indoor every year or not.

FLYING SITES ARE NEEDED!!!

As of October 1, we probably will not be able to continue flying at Walnut Hill until after the end of the basketball season. The sessions now scheduled for September 8 and 22 are the last at Walnut Hill until further notice. The problem is one of attendance, but not one we can solve by digging up more flyers. Over thirty basketball players can use the gym in an evening, and we would need a comparable crowd to be able to get in. However, not more than fifteen flyers can make use of the gym at once, and even then we would have to take turns flying.

There is promise of relief from several sources, including other buildings under the Dallas Park Department. One official has been hopeful that space can be found in Fair Park after the State Fair is over.

The Garland Aeromodelers will in theory be able to reserve the new Garland Recreation Building for free, provided there is no conflict. That site should be good for about ten minutes, after we have flown in there once or twice, and it has about twice the floor space that Walnut Hill has.

We are sure of being able to get the Livestock Coliseum whenever we have a sponsor, which will limit us to about two contests per winter season. The same may also apply to Will Rogers Coliseum, but this isn't definite yet.

We can probably continue to use the Sycamore Park building as long as there are no conflicts, on the same basis as the August 18 session. There was a collection taken up to pay the janitor's salary, which came to less than 50¢ per person, and that was agreeable to everyone.

The Drill Hall at Dallas NAS can be made available for several flying sessions in addition to the regular contests, as long as there is enough attendance to keep the Navy happy. This building has the disadvantage of having wrecked more models per session than all the other places put together. As everyone knows who has flown there, the problem of hanging models is terrific and not easily solved.

To summarize, there are plenty of places to fly year-round, but we need to keep the attendance up at most any contest in the sites that are free or nearly so. At the rented sites, the attendance problem still is with us, but we will have to make the sponsor happy instead of the owner of the building. Our indoor program will go over very well as long as it is supported by everyone interested in indoor. However, it will not continue active for long, even during the winter, without a supporting summer program. There are quite a few people presently attracted to the sport who won't build indoor models and store them all year just for the chance to spend twenty-four hours per year flying.

NEWS FROM THE FLYING SESSIONS

Indoor activity was high in August, with four sessions in all. Two were at Walnut Hill and the other two at Sycamore Park in Ft. Worth.

Some of the high times of the month were our best yet, such as Richy Earl's 7:57 in Ft. Worth and 8:42 at Walnut Hill. Tom Lloyd turned a time of 6:18 in Ft. Worth with his C Stick, and we managed 7:21 with a B Stick there. Jim Clem is still having rigging troubles, but he is in the 7:00+ bracket now.

Our juniors, Terry Hamer, Mel Gray, Paul Jones, and Guy Rogers III are all flying the little B paper jobs, although Terry finished an "El Cubo" in time to make several flights over 5:00 at the last Walnut Hill session.

Elwin and Roberta Wornell attended both Ft. Worth sessions, the first one to watch and the second to fly their Featherette. They have another Featherette on the way, and we are glad to have them join us.

Some prop experiments were carried out at these flying sessions, flying 14" and over props on B ships. A 14" monospar adjustable gave us 7:58.2 on our old B Stick at Walnut Hill, and the same ship did the 7:21 flight with a 14 3/4" x 26" prop on .065" rubber at Ft. Worth. It would have been better for us to fly only one airplane that night, the results surely would have been better. Three hours is really not enough time for more than one airplane, unless it is well trimmed to start.

FLYING SESSIONS TO COME

Walnut Hill - Sept. 8 & 22, 7-10 PM. Wear soft-soled shoes, bring watches and winders. Last chance in this site for over four months, let's make these good ones! Walnut Hill Lane at Midway Rd.

Sycamore Park Recreation Building, East Rosedale St. at Sycamore Park in Ft. Worth - Check with Guy Rogers for coming sessions, JE 5-7533

Livestock Coliseum, Fair Park, Dallas. Preliminary arrangements have been made to use the Coliseum one Saturday morning late in September, if there is sufficient interest. Since this represents a major concession on the part of Fair Park officials, we should make every effort to have a large turn-out. The time would be 8:30-12 AM, take it or leave it. We would have to pay the porter's salary, about \$5. These plans are tentative, We won't push it unless there is enough interest. Preliminary plans for a contest in the Coliseum are being made, we think we have a sponsor. This will also hinge on the interest in a contest to be held in November.

WEST COAST NEWS

Preliminary testing indicates Tom Finch's new 300 is capable of over 40:00, weight .055, 22-40 prop with 17.5" loop .080 rubber. He's building a spare also. Good luck on Sept. 17 at Moffet, Tom!

Wally Miller's Easy B turned 10:03.5 at Wilmington Aug. 11, and 10:47 unofficially at the Armory the next day. Tom fears they will lose the Armory to a Space Age Museum soon.

The Easy B sounds like fun - all-balsa prop, solid fuselage and boom, surface outlines must be straight lines, max. span 18", 3" chord, well suited to small sites. Easy B anyone?

MORE ON MICROFILM

Thanks to tips from Kowalski and Finch, we now know how to get big sheets of film - use a big tank. With a 3' x 5' tank, it took us half an hour to fill and empty the tank and make 3 12" x 36" sheets of Jemfilm and Microdyne film. Tank made from 1" x 2" pine, covered with plastic.

INDOOR NEWS AND VIEWS

BUD TENNY

OCTOBER 1961

BILGRI DOES IT AGAIN!!

How long will it be until the U. S. has a member of the Forty Minute Club? Just as a famous flight several years ago created a Thirty Minute Club, Max Hacklinger of Germany has become the charter member of the Forty Minute Club. And Joe Bilgri almost made it! Hal Cover tells the story in a letter we received this week:

"Now for the results of the record trials at Moffett hangar (180'). There were two new records set. Joe Foster set a new C record of 34:05 with a conventional C design which weighed .030 oz. Next came along the amazing Mr. Bilgri. He flew his FAI winning ship in the morning and was knocking off 30-33 minutes like it was nothing. The real interesting flights came in the afternoon. When Joe launched his FAI ship it stalled, so he relaunched without re-winding, losing 1-1½ minutes in possible flight time. While this ship was up, he then launched his new 300 sq. in. ship (weight .059 oz.) on its first flight. When the 300 was launched, he had about 25 minutes on his FAI ship. This ship stayed up for 37:35 even with the loss of time due to the faulty launch. Then he took the FAI ship down to the other end of the hangar and flew it again while the 300 was still in the air. At 35 minutes, the 300 drifted rapidly into a corner where the air was very turbulent and spoiled his chances of making 40 minutes. As it turned out, he got a flight of 38:41 (on the plane's first flight!). While this flight was coming to an end, his other ship had about 20 minutes on it. Well, you guessed it-- this flight ended up 39:39. Three flights in a row like that makes you wonder a little!!!! So now, all the indoor stick records belong to the West Coast."

It looks as if Joe is already shooting for a place on the next FAI team! Good flying, Joe!

FAI INDOOR NEWS

Dick Kowalski reports that AMA has given the green light for plans to hold World Indoor Championships at South Weymouth next year, and he has to work out details and set up firm plans in preparation for the FAI meeting in Paris next month.

From our limited understanding of the situation, this boils down to the following: If the FAI decides to hold Indoor next year, and if the U. S. bid is accepted, the next World Indoor Championships will be in the United States. If you think there was a scramble for team places this year, you ain't seen nuthin' yet! This will be a trip that almost anyone can afford by stretching a little, and the resulting competition should be fierce.

Back on our soap box, but we feel there are at least ten flyers in the Ft. Worth-Dallas area who have shown promise in the past and could develop enough to make Round II at least. We should agitate for Round II to be held in a central location next time, such as the Kansas City Municipal Auditorium. That is reported to be a really fine site, and it is close to all parts of the Central U. S.

If Ft. Worth-Dallas is going to be represented at Round II, there will have to be a lot of work done on FAI around here, and this means several contests and flying sessions in tall buildings around here. So far, nothing has been finalized on these sites, but one possible sponsor put it this way: "How much can your group raise toward the event?" A gentle hint that we may receive help if we help ourselves! We've had it too easy for a while, with free flying sites for most of the contests and flying sessions - is it worth it for higher contest fees to be in a really good site?

A NEW FORMAT?

All the other '62 models have a new look - so why not? Although the change makes INDOOR NEWS easier to read and lighter for the postman to carry, the main purpose is to increase the news space and versatility of presentation.

News is now coming in from several parts of the country, much of it on a first-hand basis. It is now our hope that the coverage can be expanded even more in months to come. Whenever possible, technical info from the other centers of indoor activity will be a feature along with the news.

NEWS FROM AROUND THE COUNTRY

Just after the last issue, Bill Dunwoody reported on the August 27 session in Lakehurst. Bill Bigge was out of town, so the rubber flying was hotly contested, even if the times weren't high. Top rubber time was 14:47.5 by Joe Pusateri. Top glider times (balsa): 1:09.9 - Dick Miller; 1:02.5 - Joe Pusateri; 1:01.0 - Bob Hatschek. Several members of the Thirty Minute Club were present for the record trails, but no one set any new records. A Junior, Steve Stackhouse, raised his own ROW Cabin record to 3:06.4.

A big package of stuff came from Chuck Tracy, Aviation Editor of the CLEVELAND PRESS. We quote from Chuck's letter: "We have more than 300 Junior age flyers alone, plus another 150 seniors and open. There are 15 to 20 planes in the air all the time -- when the gliders fly the number jumps to 50. You actually have to have your name on your glider or you may not get it back.----Our meet has grown to such size that we have to rent the Central Armory across the street for test flying." We scanned reports of past contests, noted six age categories (Dodo, bantam, fledgling, Jr., Sr., Open) in each of four events. There are several girls listed in top winners, too!!

From Bill Robinson in Wichita comes a report of continued efforts to find a regular site to boost their indoor promotional efforts. The Wichita flyers have some capable leadership with Bill, Stan Chilton and John Law heading up the efforts there.

George Aldrich bought quite a bit of indoor stuff on his last trip up here, and is planning to see if indoor will go in San Antonio. There are some hot builders down there, maybe there is a good chance.

We had a little time to chat with Harry English at the Southwest Model Championships, he said there is some indoor activity in one of the coliseums in Lubbock. Harry promised to try to find out who is leading the effort and put us in touch. Harry enjoys indoor and has ships ready to fly, but can't find a site in Oklahoma City.

RULE CHANGES

As usual with our hobby, someone is always trying to change the rules. Ken Dougan, member of the FF Contest Board reports that the proposed change in Paper Stick is now being voted on. At last report, the vote was 4 for, 1 against, 1 abstaining, and 5 votes to go. This change requires solid stick and boom and unbraced wing in Paper Stick. We will publish the complete rule if it passes.

The loophole in the HLG rules (mike HLG) is under fire from at least three proposals, including one advanced by Cliff Model Club in Dallas. No further word on these proposals at present.

Some people at the Nats were wanting to make Class D area unlimited, figuring that a 450 sq. in. job can still be carried in a car. What a sight that would be! Our guess is that the pros would build a .075 oz. 450, and the prop would be bigger than most Class B's!!

HOW TO POUR THIN FILM

Recently we asked Dick Kowalski for comments on pouring thin sheets of film consistently, and this is his reply:

"To pour the very light stuff, there are two conditions which must be satisfied. One is that the maker must be capable of pouring the correct amount of solution on the water, at the correct rate of flow from the hand. The flow must be very smooth and constant and I find that usually the faster motion is best. This takes time to develop, so don't be impatient. The other thing is the solution, the wrong solvents in the solution will not allow the pouring of light film, and this is a critical balance of two solvents and their evaporating rates.

Contrary to what some people think, warm water does not necessarily help to make sheets thinner or more consistent. This is a throw-back to prehistoric days when films contained slow solvents and it would help to use warm water to evaporate the solvent at the correct speed. I suggest you try cooler water, perhaps around 70 degrees. If this doesn't work, you can also try adding a hint of Methyl Ethyl Keytone. I've never tried acetone, but it has similar characteristics and might also work well. It's pretty difficult to tell you how to get light sheets without actually watching what is going on."

MORE ON PROPS

Lately we have been adding flare and diameter to our props, which permits larger rubber sizes without spinning the model. On the last page you will find details of the latest test prop.

Besides an increase in size, the major gimmick on this prop is hinged ribs. As shown in cross section, each rib pivots around the spar on a tiny tissue tube. Blade helix is held by the glue joints at A and B.

Except for the hinge, construction is conventional monospar on a carved block as shown. The block shown is 25" pitch, but it can be narrowed for higher pitches. The test prop was made adjustable pitch and weighed .0142 oz. The ribs were .024" square, the outline was .024" x .032" from 5# stock. Spar diameter at the hub is 5/64", and the hinge tubes are 1/16" I.D. More flare will result from softer outline wood, and from an increase in area shown in dotted lines.

WEIGH THOSE MODELS

To improve the strength-weight ratio of indoor models and find out when some weight has been saved, it is necessary to weigh parts of the model. Since these parts range from .0005 oz. to .070 for a complete model, sensitive scales are needed. The scales shown on the next page can be adjusted to the required sensitivity easily.

The construction is simple, so only a few features will be mentioned. Two methods of primary balance are used, the sliding weight on the left beam for coarse balance and the 4-40 bolt for fine trim. Since humidity affects the beam considerably, the fine trim will have to be set before each weighing. The outriggers are used to lower the C.G. of the beam to just below the pivot. Theoretically the scales would be infinitely sensitive if the C.G. were exactly on the pivot, and the beam won't balance with a high C.G. Adjust the outrigger weights until the required sensitivity is reached.

When the scales are finished, keep records of component weights during the various stages of construction, fly the model, and make the next one lighter. Tom Finch builds models just about as light as anyone, and he even weighs individual wing ribs for a 300.

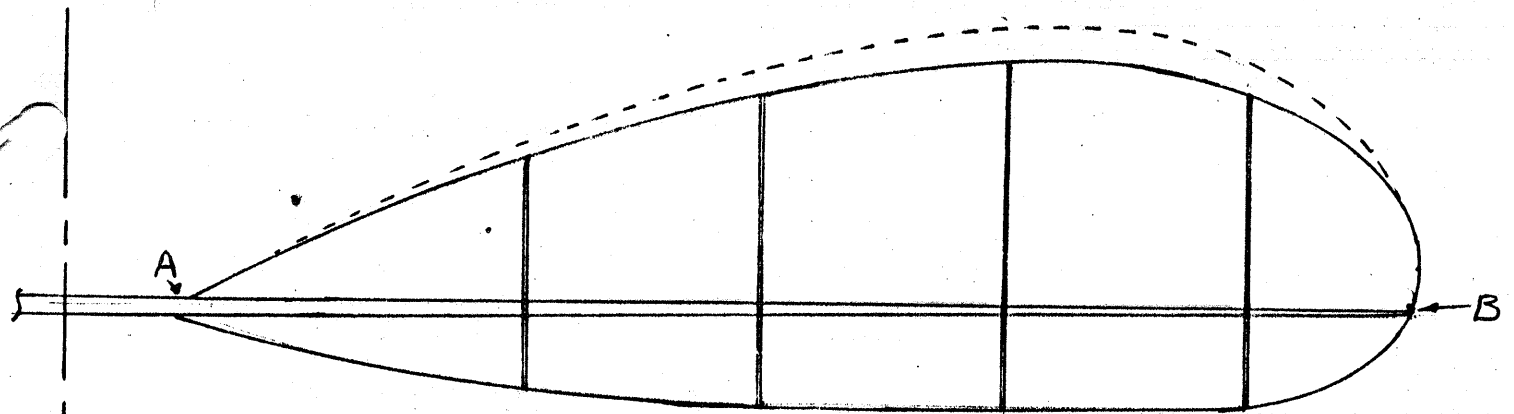
In the long run, it is no good to save weight in a manner which weakens the structure too much, or upsets the model trim. For instance, a super-light prop is murder on a model which was almost tail heavy to start. If the motor stick distorts after a weight-saving binge, you lose. But, for each .001 oz. saved in the tail surfaces, the prop can be about .002 lighter without affecting the C.G. location. Here are some examples of light models for comparison:

Item	Finch- 300	Finch- B Stick	Finch- Paper Stick	C. Sotich FAI
Prop	.011	.005	.0075	.008
Stab	.005	.0015	.005	.005
Wing	.018	.007	.019	.017
Rudder	.001	.0008	.0015	.001
Stick	.016	.0085	.010	.015
Boom	.004	.0014	.0018	.004

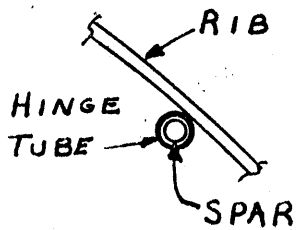
Seriously speaking, it is difficult to achieve these weights or even come close. An FAI stab is the closest we've come, ours is the same size as Chuck Sotich's FAI stab, weighs .0055 and is very floppy. It definitely should be braced, which would add least .0007 oz. It is also problematical if ships of this weight would survive long anyplace except in Will Rogers or the Livestock Coliseum. Note the difference in weight between the B Stick and B Paper components - area for area this represents the weight of condenser paper (about .013/100 sq. in.)

FLYING SESSIONS

The only flying sessions in September were at Walnut Hill. Top times moved up to 8:54.6 (C Stick). Terry Hamer pushed the Junior high time to 7:05.5. Dozens of "go for broke" flights hung up, with strong drift at both sessions. New schedules for the winter season are not set, the Ft. Worth site is under repair, and we are still hopeful of getting into the Garland Recreation Center in October, and into the Automobile Building in November. Call Guy Rogers at AT 4-2634 in Hurst, and Bud Tenny at AD 5-2212 for further flying info.



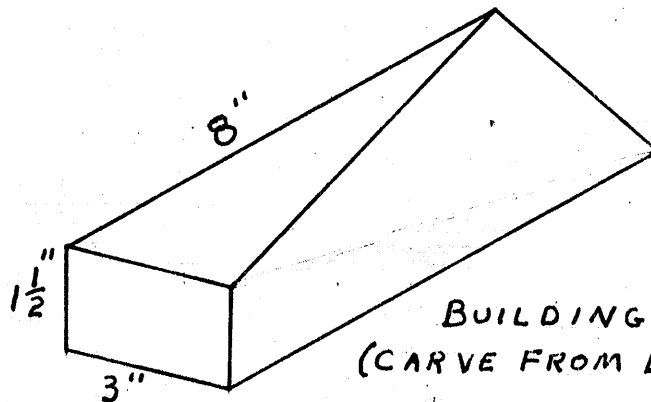
BLADE OUTLINE (DRAWN FLAT)



BLADE CROSS-SECTION
AT EACH RIB

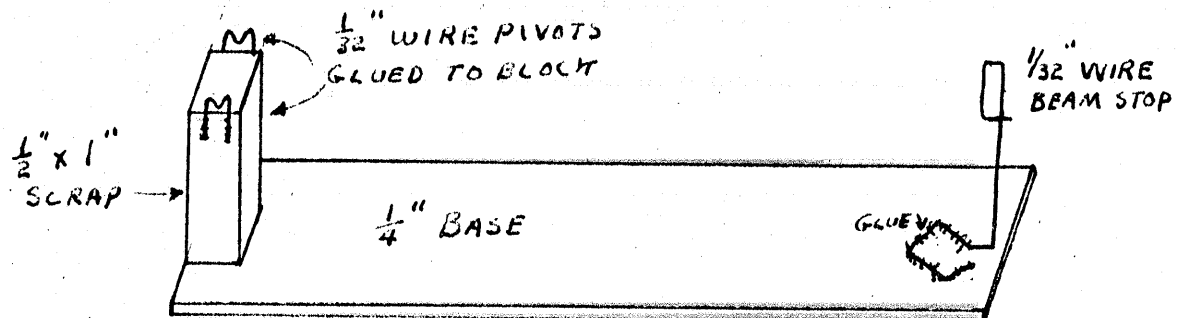
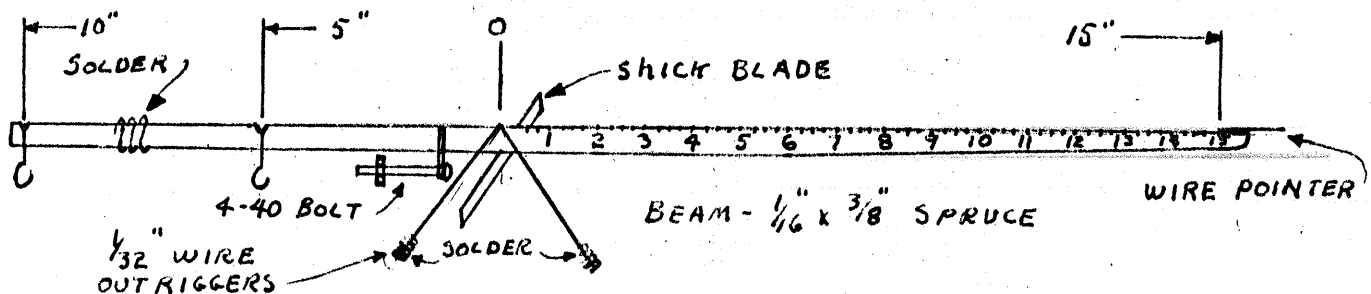


RIB TEMPLATE



BUILDING FORM
(CARVE FROM Balsa BLOCK)

FOURTEEN INCH CLASS B PROP



INDOOR SCALE - SENSITIVITY .0005 .02
(SEE TEXT FOR ADJUSTMENT & CONSTRUCTION)

INDOOR NEWS AND VIEWS

BUD TENNY

"Voice of N.I.M.A.S."

DECEMBER 1961

****NATIONAL INDOOR MODEL AIRPLANE SOCIETY****

In the November issue it was announced that the National Indoor Model Airplane Society had been formed by Dick Kowalski, Pete Sotich, Dave Copple, and Bud Tenny. Several dollar's worth of postage later, and after Richard Miller and Chuck Tracy joined the fold, this is what we have: A national organization dedicated exclusively to the increase of indoor model activity, with membership open to all who are sincerely interested in the future of indoor flying.

The purposes of NIMAS, as outlined by Kowalski, and agreed to by the other members are:

1. To act as the voice of indoor flyers in the United States.
2. To promote indoor in any way, but particularly by encouraging newcomers.
3. To act as a clearing house for comments on indoor rules change proposals.
4. To act as point of origin for ideas that are becoming rules proposals.
5. To provide, when possible, changes in technology, advanced design data, and any other technological information about indoor models.

NIMAS, as the only national organization of, by, and for indoor flyers, can help indoor flying in many ways; but to achieve the goals set out above, we need every dedicated indoor flyer to join us. The six Charter Members have agreed to handle the work connected with NIMAS, but this is not to say that we won't accept help with these jobs. Just try us and see - provided you follow through with your self-appointed tasks!

If you join NIMAS, what can you do, and what will you get for your money? First, since INDOOR NEWS is the "Voice of NIMAS" and the paper is fast becoming the best source of information on indoor flying, you will keep abreast of the latest news and information.

Second, through a system of ballots published in this paper, you will be able to express your opinions of existing regulations, rules proposals, etc., so that NIMAS can present the best possible cross-section of opinion to the Contest Board.

If you wish to present a rules proposal for evaluation before submitting it to the Contest Board, space in the paper is yours. If you have an idea you think will help others, put it in the paper. If you have a problem about indoor activities, send it to us.

NIMAS can not make indoor rules, but it can save time on rules proposals by refining them into the best possible proposal before it is submitted for adoption. NIMAS can not sponsor new groups directly but will have information and suggestions for the asking. NIMAS may be able to help secure better sites for contests and FAI Elims. Time will tell just how much NIMAS will be able to do, but NIMAS needs your help to accomplish anything.

How much does it cost? \$3 per year, at the present time. When the membership reaches about 125 members, the cost-per-member will decrease, and existing memberships will be extended accordingly. For your membership fee you get a one-year subscription to INDOOR NEWS, decals for your car and equipment, and a chance to help guide the future of indoor flying. It's a bargain!

****FAI INDOOR REPORT****

Just under the wire comes this report from Dick Kowalski, relaying from Frank Ehling:

"The U.S. bid for the next Indoor Championships was denied due to the inability of other nations to attend, but the need to hold Indoor Championships during years in which there are no Free Flight Championships was recognized and the bid was awarded to England to hold the Indoor Championships at Cardington during 1962.

The method of contest for Indoor was changed to the best 2 flights of 6 attempts, there no longer being any form of delay or unofficial flights. Each start is a flight.

It is now legal to steer the model with a captive balloon to avoid hangups, providing that the model does not remain in contact with the balloon or string for more than 5 seconds or that no more than 2 contacts are made with the model during any one flight. It is assumed that if more than legal time is used, then the timing for that flight would be ended."

****FAI INDOOR COMMITTEE REPORT****

To date, the Committee has set up the following plans for Team selections for the 1962 World Indoor Championships:

Local Elimination Contests

1. No rounds will be used.
2. Six flights using FAI Rules.
3. No minimum entry (contestants) required.
4. Top 50% will qualify for quarter finals.
5. To qualify for quarter finals, a contestant may fly in any or all eliminations in his area.

Quarter Finals

1. Only qualified flyers may fly in this one. Quarter Finals will be held in Dallas, Chicago, & Detroit.
2. Six flights using FAI Rules, rounds maybe.
3. Contestants may fly at any or all quarter finals in their area to qualify for semi-finals.
4. Qualifiers for the semi-finals (Central area only) from the quarter finals:
Dallas - top 6.
Chicago - top 6.
Detroit - top 12.
The large number from Detroit allowed due to the large number of entries in the Cleveland and Detroit area.

Semi-Finals

1. Six rounds with one flight per round, using FAI Rules. Two rounds the first day and four rounds the second day.
2. Only quarter-finals qualifiers may fly.

Entry Fees

Local Elims - Open, \$2., Senior \$1.50, Junior \$1
Quarter Finals - Same as Local Elims.
Semi-Finals - \$2.50 for all.

At all Central Area Elims, it will be necessary to have time limits for entry to keep people from waiting to see how times are running before they enter.

NOTE TO CENTRAL AREA FLYERS FROM KOWALSKI:

Since we did not know when the finals would be held, it was necessary to hold back with the announcement of plans for this coming year. No dates are set for the various meets as yet, but just as soon as the C.D.'s report in I will furnish INDOOR NEWS AND VIEWS with the dates, locations, and C.D.'s. The Semi-final must be held before June 15, so we will try to schedule the quarter finals for the middle of May and the local elims for mid-April. We will try to juggle the dates where possible to give you a chance to attend more than one meet in case you goof at your local meet. If there are any groups that want to hold their own local elims, let me know as soon as possible.

NOTE TO EAST COAST AND WEST COAST FAI FLYERS:

For further details for your respective areas, the man to contact is:

East Coast	West Coast
Richard Miller	Dave Copple
P.O.Box 27	823 S. Mariposa, Apt. #1
New York 23, New York	Los Angeles 5, Calif.

In view of the fact that the United States Indoor team will be under tremendous pressure from the foreign teams who made such a good showing in spite of a lack of practical experience in large hangars, the sooner we get to rolling the better our team will be. Careful planning now can do it!

****LATE NIMAS NEWS FLASHES****

Joe Bilgri has accepted the previously announced invitation to become a NIMAS Charter Member, and this completes the list of those invited to join.

AMA Headquarters has been notified of the formation of NIMAS, and Technical Director Frank Ehling has been asked to issue a special charter in the name of NIMAS.

Since the name "charter member" is on the way out, the names and addresses of the first seven members of NIMAS are listed below. If you require any further information about NIMAS, please contact us.

Volunteer help, plus application for NIMAS membership should be made through Bud Tenny. If there any artists in our midst, how about sending proposed decal designs to Dave Copple?

Dick Kowalski
20203 Moenart
Detroit 34, Michigan

Pete Sotich
3851 W. 62nd Place
Chicago 29, Illinois

Dave Copple
823 S. Mariposa, Apt. 1
Los Angeles 5, Calif.

Bud Tenny
Box 545
Richardson, Texas

Chuck Tracy,
c/o CLEVELAND PRESS
Cleveland 14, Ohio

Richard Miller
P. O. Box 27
New York 23, New York

Joe Bilgri
256 1/2 Locust
San Jose 10, Calif.

The most popular idea expressed by these charter members about their own membership has been, to quote Kowalski, "Members is members, no associate members, no leader members, no nothing. Just members, you pays the \$3 and takes your chances." Needless to say, the so-called charter members are handling the work of running NIMAS until someone else will help out, but none of us claim any special privileges. The extra work is really just an extension of the same hole-in-head philosophy that results in our paying \$6 for AMA licenses when we could get by for less.

NATIONAL RECORDS - PERFORMANCE YARDSTICK??

With the advent of low-and-medium-ceiling flying, and the resulting wide-open records picture, there was a rush to "set some new records". Within six months, all the more common indoor classes had good records on the books. At the end of nine months under the new rules, there were only a few records unclaimed by the more experienced flyers.

Already this sounds like a blast against the National Records as we presently have them, but - it ain't necessarily so! National Records are supposed to indicate a superior performance of man and machine, which they do. However, this does not tell the whole story for low ceiling flying. Medium ceiling records are a more valid measurement of performance, but even high ceiling records need not be taken as the final word.

Let's take indoor day at the '61 Mats as an example - top time in D was over 33 minutes at the time the D record was over 37 minutes. No one questions that Bilgri had the best official flight of the day, but he fell far short of the record time. In September, Joe took a similar ship with the same prop and rubber size and turned 38:41 for a new record on the first flight on that model.

If there is that much difference between different days and flying sites in Category III flying, how much more difference will there be in Category I & II? The point we hope to make is this: Don't be downhearted if you don't approach the existing record times on any given day in your own site.

Each existing record represents a superior combination of site, flying conditions, man and machine. It does not mean that the record holder could beat you in your own site. Unfortunately, this is a weakness of National Records that probably won't be overcome. Keep this in mind, and strive to do your best where you fly, and fly often!

****ANOTHER ANNOUNCEMENT****

INDOOR NEWS is becoming very well accepted under the announced subscription plan of \$2 per year, and members of NIMAS are helping in this growth. We really appreciate this vote of confidence in our efforts to help indoor flying, and will continue to do our best to improve our coverage of news, rules and technical info.

We have been pleased also with the many letters of congratulations, all of which met with the same reply: "INDOOR NEWS is and will be what the readers make it. Good articles, fresh news, and well-thought out comments from all our correspondents will make the paper a real success". Since your editor lives in just one part of the country, he must rely on others for news from elsewhere.

With that in mind, we feel the need to turn the tables and say to all our friends who have gathered the news in the past, "Thanks for a job well done, keep up the good work."

The future holds much promise, with several articles on indoor topics planned by well-known indoor flyers. The first of these appears in this issue - the first part of a discussion on hand launched gliders by Richard Miller. Without doubt Richard is recognized as expert in this field, and we welcome his efforts.

Since the response to INDOOR NEWS has been so good, this December, 1961 issue will be considered to be the first issue under the subscription system. Those who have already subscribed will find a receipt included with this copy, indicating they are on the books. If we have missed anyone, we feel sure you will let us know promptly.

DRAFTSMAN WANTED

Want ads in the newsletter? Why not? This all comes about through special arrangements by Chuck Tracy to print plans and special sketches for inclusion in INDOOR NEWS.

Most plans aren't usable the way we get them, so NIMAS needs a volunteer draftsman, (or draftsmen, to keep from overworking anyone) who would be willing to put plans in shape for publication. How about it?

The amount of work involved varies from tracing a set of plans in ink, to re-arranging a set of plans or redrawing them to proper size. If we can come up with more than one helper, this may spread out the load so everyone can concentrate on building and flying!

SAVE THOSE PAPER STICK MODELS!!!

Yes, those old-rule paper stick models are still good for a while, on two counts! First, the new rules that were supposed to go into effect haven't been fully accepted, for several reasons.

Second, these models are still OK for one of the biggest and best indoor meets going! We refer to Chuck Tracy's Great Lakes Indoor Air Meet, held January 11 at Cleveland's Public Hall, in Cleveland, Ohio.

The meet features four age classes for Juniors and then Senior and Open events besides. Model types to be flown are: Glider - all ages, Pre-Fab - all ages, Paper Stick - Bantam, Fledgling, Jr., Sr., Op., Micro-film - Jr., Sr., Op.

The fascinating array of Junior age classes breaks down this way: Dodo - 9 or younger, Bantam - 10 & 11, Fledgling - 12 & 13, Junior - 14 & 15. It is good to see a contest which thinks so much of future modelling that the prizes put the emphasis on the youngsters to this extent.

From all reports, this meet is so well attended that your name should be on your gliders, to be sure of getting them back. And all test flying must be done in another building across the street, in order to leave air space for official flights! This one sounds like a real ball, so plan to go! For further details, write: Chuck Tracy, c/o CLEVELAND PRESS, Cleveland 14, Ohio.

****SOLID STICKS OR HOLLOW?****

The Chicago Aeronauts Paper Stick proposal has met with considerable opposition since it was finally published in several newsletters and in MODEL AVIATION. Some reactions have been so violent that letters from these individuals were almost hot to the touch. Other model builders and leaders feel that the proposal did not receive proper consideration, since it was not published in MODEL AVIATION during the study period, and more calmly insist it be recalled for further study.

Since the Chairman of the FF Contest Board has not reported on the status of this proposal at this date, we can only go on reports from other sources. Several CB members have asked for recall, and at least one did not support his original affirmative vote. If you have a special reaction to this proposal, be it violent or passive, make your feelings known to the Contest Board member for your AMA District. Elsewhere in this issue there is a list of CB members, keep it for reference.

****MORE ON GLIDER PROPOSALS****

Since the November issue of INDOOR NEWS, which gave the text of three proposed indoor HLG proposals, an announcement of a fourth proposal was made. Careful study of the "four" proposals showed that the extra proposal really was a letter in support of one of the other proposals. Further study showed that the proposal by the Cliff Model Club was not included, but instead a copy of Ken Dougan's letter supporting the proposal!

To keep abreast of further developments on these already delayed proposals, check with your local CB member and let him know you care! Watch for these to be published in MODEL AVIATION, if you missed the text as published here. If sufficient interest arises, that portion of the November issue could be reprinted for 25¢ a copy and be sent out. Further, the latest information on the FF Contest Board is published below for reference. Remember, some of these members are up for re-election, so this list may change.

- Dist. I - Daniel Sobola, 94 Rock Hill Rd., Hadley, Mass.
- Dist. II - Bob Hatschek, 316 Grosvenor St., Douglastown, Maryland
- Dist. III - Rudy C. Kluiber, Sr., 14324 Lakewood Hts., Cleveland 7, Ohio
- Dist. IV - John Patton, Chairman
Route #5, Fredrick, Maryland
- Dist. V - Harold Thompson, 5311 S. W. 104th. Avenue,
Miami, Florida
- Dist. VI - Gerald Ritz, 9520 Greenwood, Des Palines,
Illinois
- Dist. VII - Cecil Winters, 1406 May St., Lansing 6,
Michigan
- Dist. VIII - Ken Dougan, 702 Huddleston Dr.,
Grand Prairie, Texas
- Dist. IX - George Batiuk, 3066 S. Osceola St.,
Denver 19, Colorado
- Dist. X - Bob Hunter, 7447 Satsuma, Sun Valley, Calif.
- Dist. XI - James Cole, 4125 Austin, Seattle, Wash.

QUESTIONS AND ANSWERS

By request, and also because we think it a good idea, we are starting this particular column to serve as a clearing-house for those unanswered questions that plague even well-informed and competent builders.

Within limits, the scope of the column is to be no-holds-barred - theory, technique, or whatever. Try to be sure your questions are clear, and not ambiguous. When possible, the questions will be fielded ahead of time by an appropriate expert so the question and the answer can appear together. Other questions will be thrown out for general comment like these below. Keep the answers as short as possible without obscuring the meaning.

1. Is there an accepted relationship of prop area to wing area as there are accepted stab and rudder areas?
2. Should a lifting tail have a positive angle of incidence with relation to the thrust line? What is the best arrangement?
3. What is the best relationships between fuselage and boom length, and between wing span and total fuselage length?

****AMA ELECTIONS****

By the time this reaches you, the time will be a little short to send in your AMA Ballot, but it's worth the effort to do so. If Christmas has you strapped for cash, the license renewal has a longer deadline than the ballot, so vote anyway. Because there are personal friends on both sides of the fence in so many of the races, we will refrain from supporting any candidate.

However, there are a couple of points which can be made, and here they are. If you haven't been satisfied with the way AMA has been perking lately, the election is your only easy chance to change things. To really be sure of accomplishing anything by your vote, you need to know the candidates and what they stand for. If you aren't personally acquainted with a candidate, there is little chance to find out what you need to know. Recently we heard the idea advanced that brief comments on candidate qualifications be published before elections.

This is a fine idea, and if you like it, now's the time to start on next year's elections. The logical place to get these comments would be from the man who makes candidate suggestions to the members of the nominating committee. It will take agitation, and that is lots of work, but it can be done. If we start now, the proper people can be nominated and the supporting info be gathered for publication. But, enough people will have to want it, or it won't go. If you get writer's cramp or your typewriter stutters, forget it. Things like this take lots of writing, first to gain support for the idea, and then to convince AMA the support is there.

NEWS FROM AROUND THE COUNTRY

ILLINOIS - CHICAGO

In Chicago, flying at the Madison Street Armory started November 4, as announced in the last issue. Pete Sotich reports the flying schedule to be: 1st, 3rd., & 5th. Saturdays - HLG - 9:00 to 11:30 AM, Paper Stick - 11:30 to 12:30, and Microfilm Rubber - 12:30 to 4 PM. On the 2nd. & 4th. Saturdays - Paper Stick - 9:00 to 10:00 AM, Microfilm Rubber - 10:00 AM to 1:30 PM, and HLG 1:30 to 4:00 PM.

Pete goes on to comment: "With this type schedule it will not be necessary for modelers to spend the whole day at the Armory. Various schedules have been tried out and the present schedule seems to work best.

Bob DeBatty made a flight of 26:13.0 with a FAI Indoor model and he appears to be going all out in his preparation for the next FAI Indoor Eliminations."

For those not familiar with the location of these flying sessions, the Madison Street Armory is located at 2653 West Madison Street. For visitors and flyers alike, it is requested that you don't smoke on the Armory floor.

One of the most faithful attenders at the Armory sessions has been Don Kintzele, who has a 200 mile trip every time he shows up! In fact, Don missed only two sessions last year, one was Christmas Eve and the other was a Detroit indoor contest.

TEXAS-FT. WORTH & DALLAS

The Cliff Model Club plans an indoor contest for January 7, but at the time of this writing sanction had not been applied for. Presumably it will be at the Drill Hall at Dallas N.A.S., will have at least Stick and HLG events.

Sanction has been applied for to hold a Category I Record Trials at the Walnut Hill Recreation Center on January 14, and there was an indoor flying session there on December 3.

TEXAS - LUBBOCK

Riley Wooten, combat pro, confirmed our suspicion that indoor was dead in Lubbock. He reported that a few fellows had flown there about three years ago, but nothing since.

We have heard that there are two - not one, but two coliseums in Lubbock, so it looks as if there is a golden opportunity going to waste. Anyone interested?

WASHINGTON - SEATTLE

Last month Richard Love, District XI AMA V.P. answered our query about indoor flying in Seattle. He has served as CD for some Category I Record Trials, and describes the activity as follows:

"Our group has been flying periodically for about a year and a half now. As in most model activities these days, the membership is largely over 21 with a few seniors and a couple of juniors.

We fly in a West Seattle fieldhouse gym - Hiawatha Field House. The ceiling height is just under 25' - length and width are 98½' x 57½'. The ceiling is pretty clear although louvered ventilators protrude slightly from the ceiling. We can fly there only on Saturdays from 3:30 - 6:00 PM - approximately once a month so flying time must be rationed."

Mr. Love also went on to report that his group had set two national records in this site, which helps to sell their need for the building. The two records he mentioned were Hu Entrop's A ROG (12:10.0) and Phil Hainer's B Stick (8:54.4) which were both set in April of this year.

If you didn't pay attention to the building size, go back and read it again. Both those records are good times, and they were done in a building with limited floor space and ceiling height. If you have a similar site, and only average times, try harder! It's possible!

MISSOURI - INDEPENDENCE

From Dick Black came a letter and a copy of his newsletter "Slipstream", a very well edited and informative paper. Dick's club, the Propbusters, has the usual problems with sites, and have been going all the way to Topeka, Kansas to hold record trials in a school gym there. At least the site is free, and has nearly 35' of ceiling.

The October Record Trials resulted in a record application for the team of Stamm & Johnson in B Stick, with a flight of 10:21.0, and the same Johnson applied in HLG with a time of 0:41.2. Stan Chilton from Wichita made several assaults on the A ROG record, but kept hanging up.

The November Record Trials gave Dave Erbach three record applications for the Junior age group; 6:14.8 in B Stick, 4:33.3 in B Cabin, and 4:14.8 in A ROG. It seems as if the boys in that area think nothing of trips well over 100 miles to fly indoor!

That copy of "Slipstream" finished with plans to the Stamm-Johnson record model, a conventional B Paper Stick weighing .068 oz. and flown for the B Stick record. Who said they have to be light for Category I?

VIRGINIA - YORKTOWN

Bob Champline reports that members of the Brain-Busters club have been trying to get permission to fly in a blimp hangar at Weeksville, North Carolina. So far, there has been little success, but they will keep trying. The hangar appears to be at least as large as the one we flew in at the Nats, so it's worth the try.

In a more optimistic vein, Bob reports on efforts to schedule flying sessions in the Newport News Armory for December.

Aside from looking for sites, Bob's latest project is a special double-surfaced FAI prop which is waiting for a place to fly to turn up.

CALIFORNIA-WILMINGTON

WIMAC NEWS (Dave Copple) reports that the December session at Wilhall will add indoor flying scale for the first time on December 8, starting at 7:00 PM.

The November session was enlivened by Anne Gitlow, (Lew's new bride) as she placed 1st. in Novice Easy B with 5:13.

INDIANA-KOKOMO

Word has been received that the Kokomo Knights of The Round Circle has the use of facilities at Bunker Hill Air Force Base for indoor flying, a Category I Site. Let's hear from you, Kokomo!

THE HAND LAUNCH GLIDER

PART ONE

By RICHARD MILLER

Introduction

It has been my ambition for some time now to write a book on the hand launch glider. Despite the fact that I had someone willing to publish such a book, the matter of finding enough time always proved a problem.

Recently it occurred to me that perhaps a good way to get the book done would be in small installments in INDOOR NEWS AND VIEWS. I queried Bud Tenny and found him willing to co-operate. As a consequence, portions of from 750-1000 words will appear in each issue; and if you string them all together they will probably reach at least to 1963 or 1964.

Writing a book at the average rate of twenty words a day is bound to take time, a disadvantage offset by two splendid advantages. One is the fact that each month something gets done. The other is that if you, the readers, co-operate by commenting on the segments you read each month I will have the sort of material which (when the time comes to put all the bits and pieces together) will make for a comprehensive and, as they say, a "definitive" work.

So please, when reading some fragment about which you are well-informed and experienced, jot down your observations and send them to me, Richard Miller, Box 27, New York 23, New York.

History

It seems probable that the first man ever to launch a glider by hand was a remarkable Englishman named Sir George Cayley (1773-1857). Cayley, whose accomplishments in aeronautics are out of proportion to his small renown, is believed to be the first man to understand the contribution of dihedral to stability and the fact that the center of pressure of the wing falls over the center of gravity of the aircraft in normal flight.



CAYLEY - 1804

In his late teens Cayley had built very successful helicopters of feathers, cork and whalebone; and in 1804 (aged 31) the fundamental glider. It seems from the shape of the wing (see illustration) to have been developed from a kite, a fact which seems fitting. Beyond this it had a generous tail moment arm, modest surfaces and the look of a model that should fly.

About 130 years later as time flies we find the hand launch glider, as we recognize it, beginning to evolve in the United States. Why the simple chuck glider underwent such an extended period of latency, why it did not develop earlier (ahead of that crazy twin pusher, for example) is anyone's guess.

It is possible that insomuch as man had real gliders (Lillienthal, Chanute & co.) there was less fascination in the models. Another possible cause for the lag is that the HLG had to come further from its full scale counterpart, had to undergo a greater metamorphosis than the rubber model did.

So? So in the October 1930 issue of M. A. N. we find something called the "Hawk Soaring Glider". It has a deep and heavy fuselage, "V" dihedral (24" span) and an outside rudder that makes it quite ugly by present day standards. Nonetheless it was a direct ancestor of today's HLG.

How were times, always an index of progress, in those days? Well, looking now in the July '32 issue, (still M.A.N.) we find the results of the Eastern States Meet of that year. August Ruggeri, 16 years young at that time (where are you now, August?) did :15.8. In second place was another youngster named Johnny Zaic (I know where you are, John!) with :12.0 flat.

Wanna know who placed third? Wanna know who first made a minute indoors? Then pay your \$2 and get the next exiting issue of INDOOR NEWS AND VIEWS.