CENTRAL INDIANA AEROMODELLERS

INFORMER

FREE FLIGHT NEWS OF THE MIDWEST

** The Weather **
When bees stay near hives,
rain is close by!

==========:

- Editor -
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C.I.A. Winter Banquet Time Comin' Up Again – But With A Change....

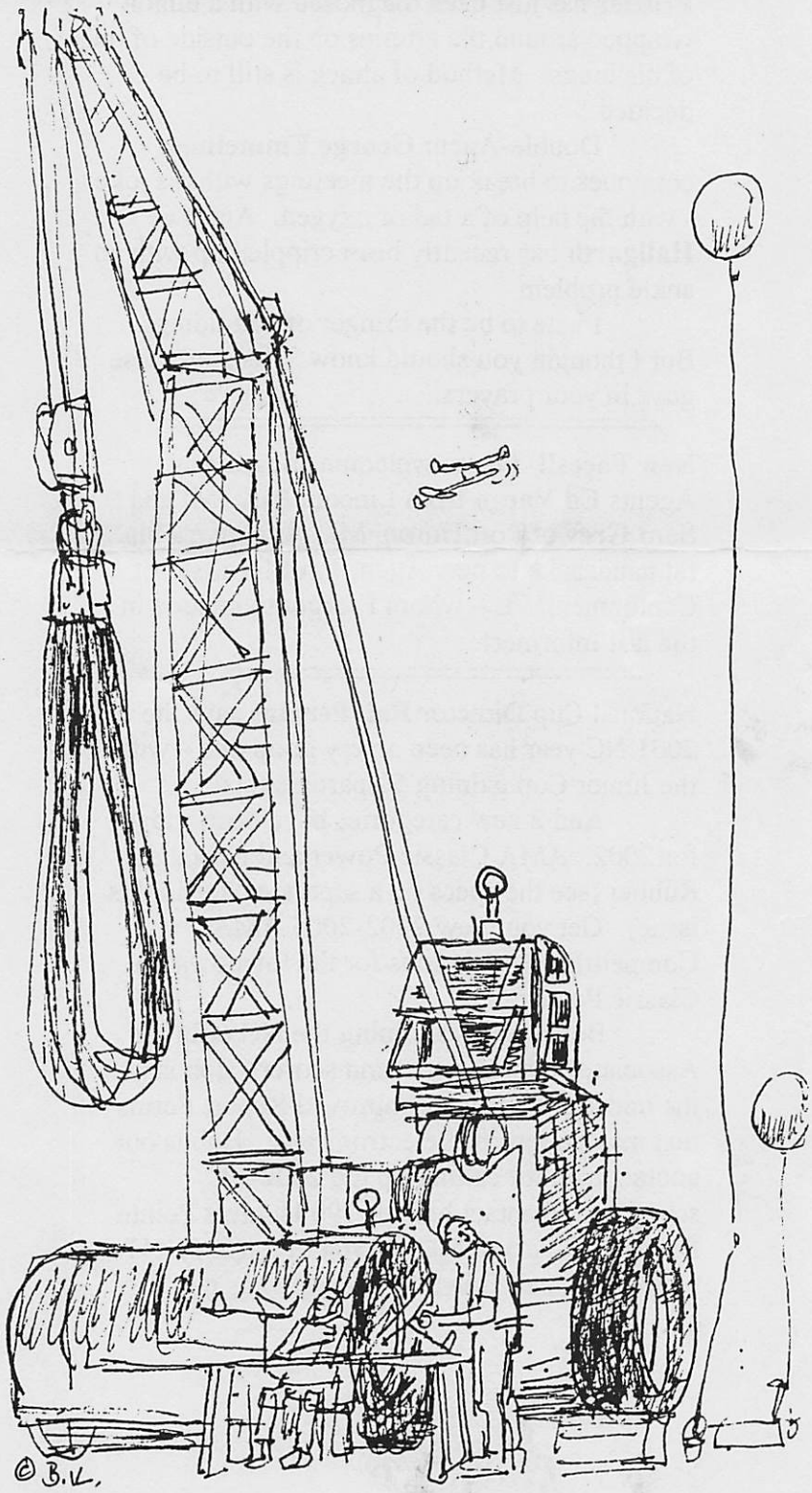
After T'giving and Santa's visit, comes our annual CIA Awards Banquet. But this time, there'll be a change of location – prompted by last year's cramped conditions and lack of "sympathy" by the management at our usual haunt.

This year, we'll be trying out the ***Cedar Haus***, at 323 S. Main St., in Shirley, IN. The date will be Saturday, January 19th, 2002. Socializing starts at 4pm, and gorging at 5pm! We're starting a bit earlier this time to ease the driving situation for our out-of-the-area buddies! And our spies have confirmed that the food is quite good – and in the form of a 'mini buffet'.

The tab will be $17.50 – the same as last year. Contact **Meredith Chamberlain** by Monday, January 15th so we can confirm the number of attendees to the Haus. He'll also be able to give a price breakdown for non-adults. His address(es) are: 5810 Madison Ave., Anderson, IN 46013; or phone (765) 643-1885. His email address is: troymkc@md.netindy

Give a peek to page 4 to view the roadmap**

Again, a combo of Klub Klowns will be wielding the 'ol baton – and passing out the door prizes and other goodies! And the coveted "Crash & Burn" trophy will again be awarded to some well-deserving recipient – along with a few other happenings that haven't been dreamed up, yet! And don't fret if the weatherman predicts snow, ice, or whatever – because it hasn't really materialized for about 10 years, now! Plus you have all day Sunday to get back home!! Let's have a banner turnout! See ya thar!!!



Hospital report.....

Agent **Bob Abernathy** is home now, and better than ever following triple-bypass surgery about a month ago. And **Ted Dock** is also back home. He just went thru successful head surgery to remove a brain tumor!

Agent **Roger Lane** has been slowing down a bit, recently – having to put up with frequent kidney dialysis sessions. And **Steve Frazier** has just been diagnosed with a tumor wrapped around the arteries on the outside of one of his lungs! Method of attack is still to be decided.

Double-Agent **George Emmelman** continues to break up the meetings with his jokes - with the help of a tad of oxygen. And **Les Hallgarth** has recently been crippled up with an ankle problem.

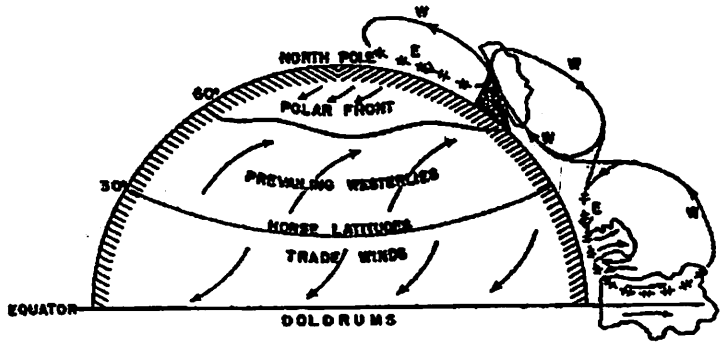
I hate to be the bringer of bad tidings. But I thought you should know. Keep all these guys in your prayers.....

New Faces!! Please welcome aboard new Agents **Ed Vargo** from Lincoln Park, MI and **Sam Grey** of Port Huron, MI. And give a big, fat handshake to new Agent **Paul Grabski** of Cantonment, FL – whom I forgot to include in the last Informer!

National Cup Director **Bob Perkins** says the 2001 NC year has been a very good one – with the Junior Cup gaining 50 participants!

And 2 new categories have been added for 2002: AMA Classic Power and Nostalgia Rubber (see the specs on a separate page in this issue). Get your new 2002-2005 AMA Competition Regulations for the lowdown on Classic Power.

Bob Mattes is joining the NC effort as Associate Administrator and scorer. Bob is in the midst of designing improved Report Forms that may be returned electronically. Bob is our contact man for setting up the 2002 NC schedules. Contact him at: 190 Hunters Pointe Drive, St. Charles, MO 63304. Ph: (636) 447-9850. Or email Bob at mattes@wans.net .



Air circulation on a uniform and rotating earth.

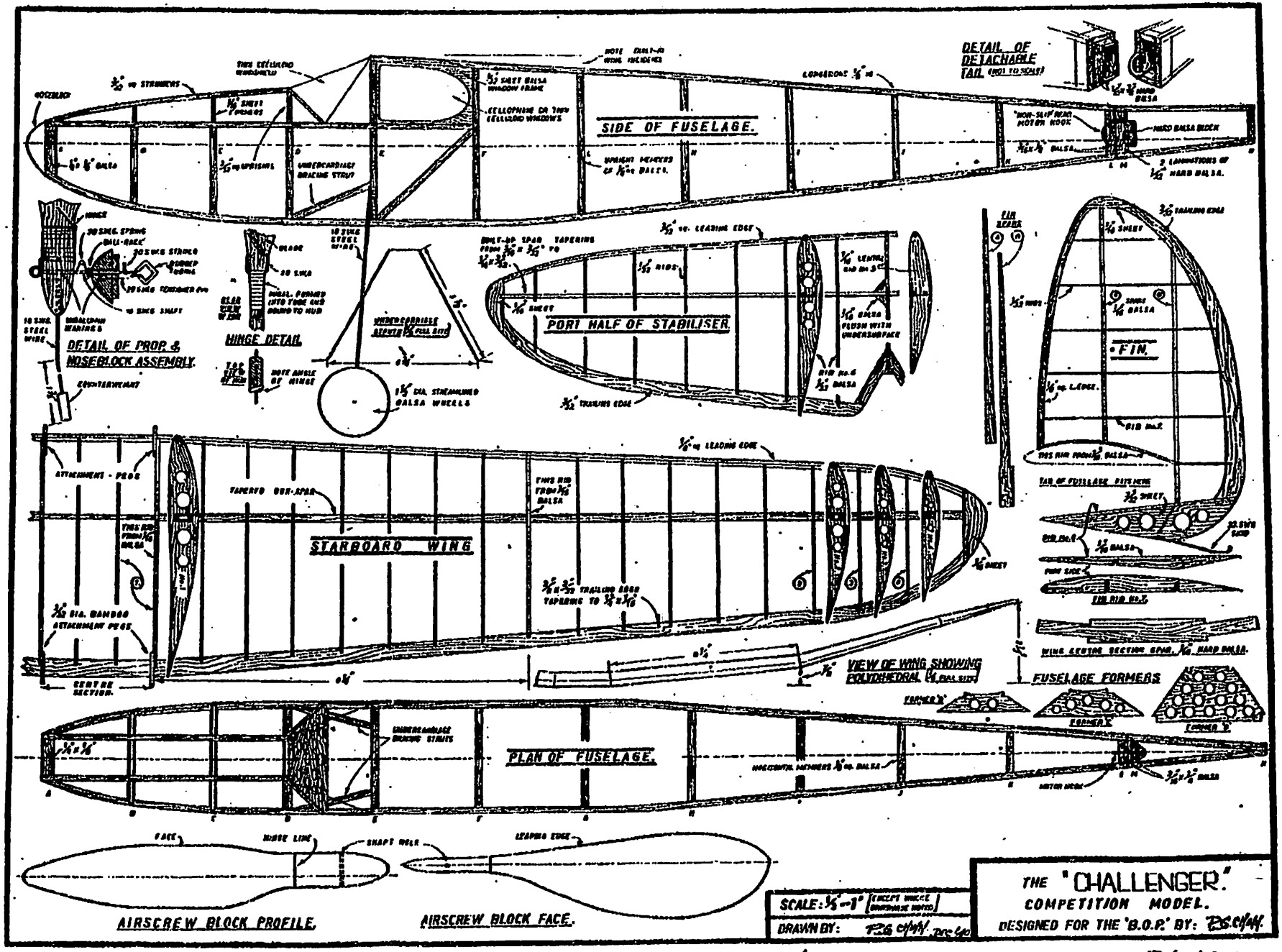
I threatened to do this CIA email list before. Here goes:

CIA Web Page:
www.members.aol.com/ciaffclub/cia.htm
Bill Burgess:
Jburg1104@aol.com
Meredith Chamberlain:
troymkc@md.netindy
Richard Covalt:
rxcovalt@aol.com
George Emmelman:
emm91827@aol.com
Steve Frazier:
howlinf1j@earthlink.net
Les Hallgarth:
lesgarth@aol.com
Guido Speedy:
bogs1005@aol.com
Phil Sullivan:
ciasilk@aol.com
Lee Campbell:
souper30@gte.net
Moe Whittemore:
mjwhitte@ix.netcom.com

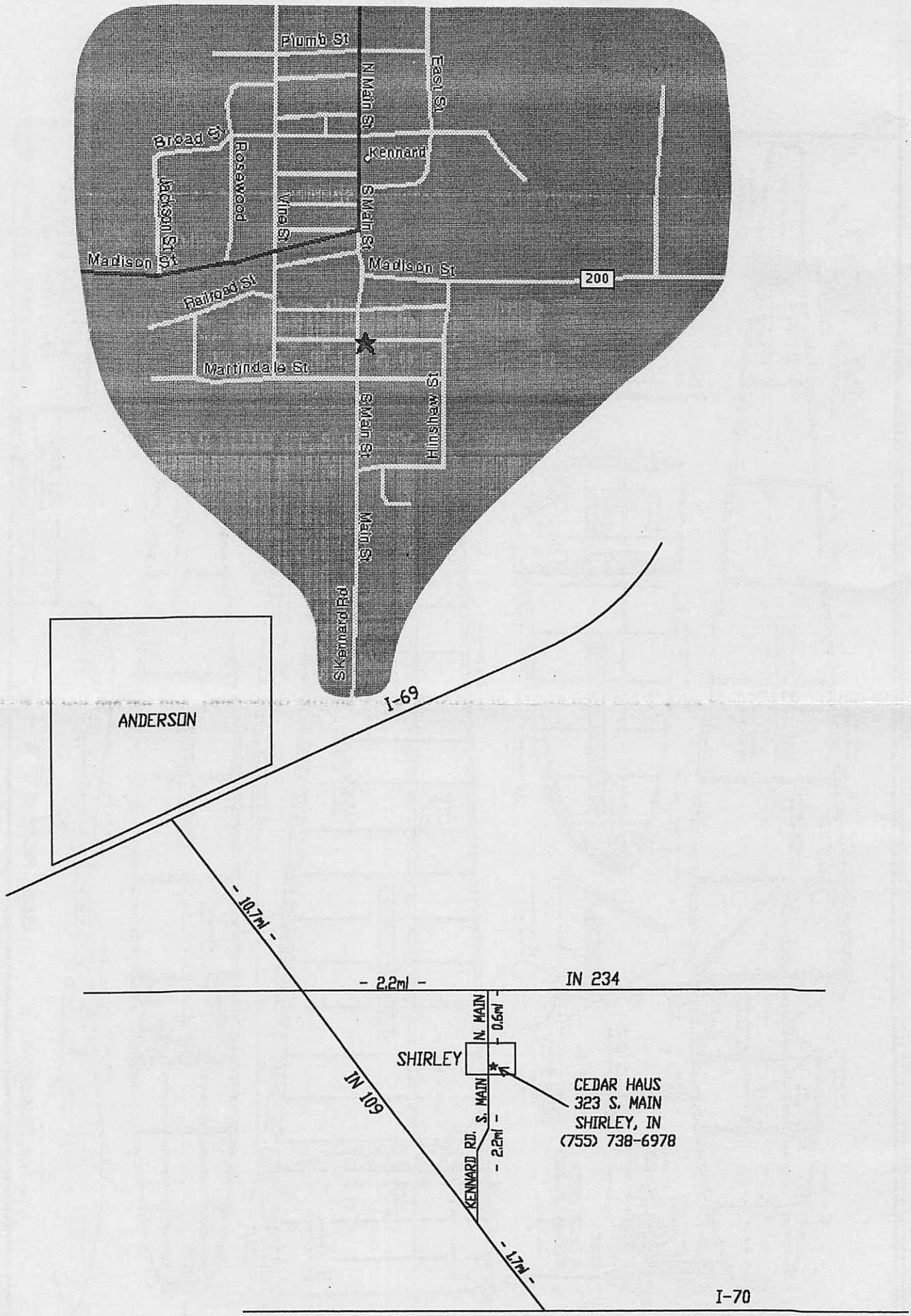
If any of you Agents feel left out, drop me a line and I'll add your names.

The plan on the facing page was borrowed from ***SAM 87 Speaks***. I thought it was kinda neat. But the 'view has been copied so many times that some particulars are illegible. But there's enough there to whet the O.T. flyers' appetites.

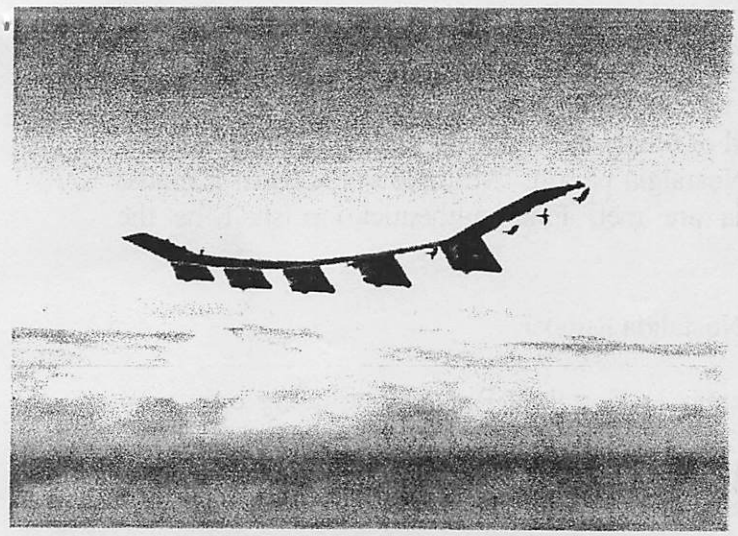
I'm trying to find out more about the model's specs (date of 'publication'; scale/span; designer; contest record; availibility of plans, etc...). If you need this info before the next issue of the Informer, let me know. And if any of you can shed any more light on this model, by all means, let me know!!



[To face page 94.


Plumb St
N Main St
East St
Broad St
Rosewood
Kennard
Jackson St
Wines
S Main St
Madison
Madison St
200
Railroad St
Martindale St
S Main St
Hinshaw St
Main St
S Kennard Rd
ANDERSON
I-69
- 10.7mi -
- 2.2mi -
IN 234
N. MAIN
- 0.6mi -
SHIRLEY
IN 109
S. MAIN
CEDAR HAUS
323 S. MAIN
SHIRLEY, IN
(755) 738-6978
KENNARD RD.
- 2.2mi -
- 1.7mi -
I-70

Solar wing becomes highest flying plane



One Heckuva Prop-Job!

(CNN) -- The prototype of an aircraft that could compete with terrestrial satellites and lead to unmanned flights on Mars shattered altitude records during an aerial marathon that ended Tuesday.

The solar-powered plane soared to as high as 96,500 feet during a marathon flight that squeezed as much sunlight as possible from the long summer Hawaiian day.

The NASA craft, known as Helios, easily overtook the 80,200-foot record for propeller-powered aircraft and the 85,068-foot mark for all non-rocket planes.

"It's kind of fun for us because people are well aware of NASA's space shuttle [program], and we are not as well known," said Fred Johnsen, spokesperson for NASA's Dryden Flight Research Center, which oversees the program. "We're pretty proud."

The high point was just short of the 100,000-foot goal that NASA had set for the remote-controlled craft. The plane took off at 8:48 a.m. local time Monday and landed at 1:43a.m. Tuesday, according to AeroVironment, the California builder of the craft.

The plane boasts a wingspan longer than a Boeing 747, weighs less than many automobiles and uses solar-powered motors to power 14 propellers. During the record-breaking flight, it flew at speeds ranging from 20 mph to 170 mph.

Thinning air and waning sunlight slowed and eventually stopped the plane's climb as it approached 100,000 feet, convincing NASA managers to bring it home to the island of Kauai.

Eventually fleets of such aircraft could remain aloft for months, offering inexpensive alternatives to low-orbit communications and environmental monitoring satellites, according to Dryden.

Moreover, test flights with the $15 million Helios should provide valuable information about how to design airplanes that can navigate martian skies, said Johnsen. Helios, approaching the boundaries of the terrestrial atmosphere, encountered thin air pressure thought to resemble conditions near the surface of Mars.

The flying wing operates on solar panels linked to a regenerative fuel cell that produces enough power during the day to remain in flight for hours into the night. The 247-foot-long, eight-foot-wide structure gently flexes and bends as it flies, similar to a kite instead of a conventional aircraft.

ed: Ex-FF'er Mark Drela (*"Upstart"* IHLG) contributed mightily to this experiment as an AeroVironment Project leader.....

National Free Flight Society-- Nostalgia Rubber Rules

1. Design eligibility. The period of eligibility for Nostalgia Rubber designs shall be from January 1, 1943 through December 31, 1956. To be eligible to compete in Nostalgia Rubber, a model must have been designed and the original plans published or otherwise verified by the contestant to have been drawn and used for construction during the Nostalgia period. Multiple versions of a model design are permitted provided the above criteria are met. Final authentication shall be the responsibility of the contestant.

   SAM-legal rubber models shall not be eligible for Nostalgia Rubber.

2 Events. There shall be two Nostalgia Rubber Events: 1) Nostalgia Rubber, including only non-Wakefield designs, and 2) Nostalgia Wakefield. The Events may be flown individually or combined. Either the individual Events or the combined Event may be conducted at a contest.

3. Contest processing. There shall be no weight requirements for models or restrictions on rubber weight. The name of the model design(s), the designer(s), and the vintage(s) of at least one model shall be declared at initial registration.

4. Number of models. Contestants shall be allowed two models in an individual or combined Event. At least one of the two models shall be declared before attempting an Official flight (see # 3 above; the second model may be declared after initial registration but must be declared before attempting an Official or Fly-off flight with that model.

5. Scaling. Scaling up or down of model parameters or components shall not be allowed.

6. Construction. The flying surfaces, airfoils, and propeller shall be the same as the original design. A design may be modified only sufficiently to allow a blast tube and a dethermalizer.

7. Model source. The Builder of the Model Rule applies.

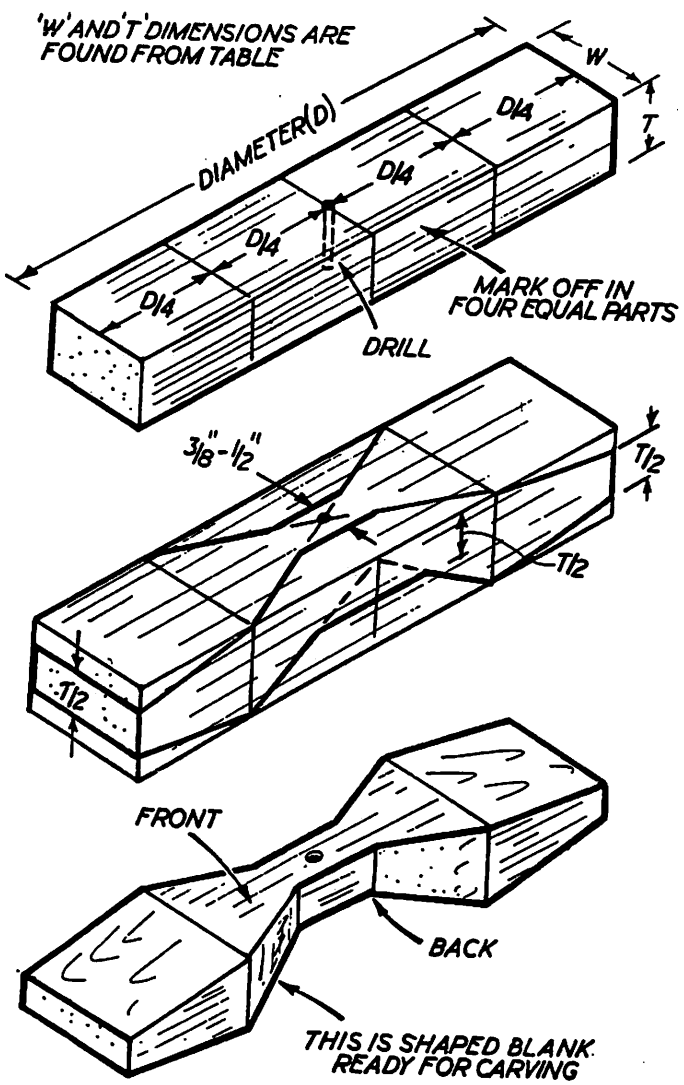
8. Launch requirements. Nostalgia Rubber Event models designed and intended to be hand-launched shall be hand-launched. Nostalgia Wakefield Event models designed to be launched R.O.G. shall be launched unassisted R.O.G., using all points of the designed take-off gear, from a flat surface positioned not higher than 30 inches above ground level unless flown in a combined Nostalgia Rubber / Nostalgia Wakefield Event in which case hand-launching is permitted.

9. Official flights and scoring. The NFFS Nostalgia General Rules and AMA Competition Regulations apply to Nostalgia Rubber and Nostalgia Wakefield Events, unless otherwise noted. Official flights and Fly-off flights may be attempted only with the two declared models (see #3 and #4 above). Six attempts are permitted to achieve three Official flights of 40 seconds or longer. Flights of less than 40 seconds may be recorded as Official flights at the option of the contestant if declared immediately but the decision may not be reversed. The final score is the total of up to three Official flights plus the recorded time of any Fly-off flights for which the contestant becomes eligible by achieving maximum time in each of the three Official flights. Maximum flight times for all site Categories (I, II and III) shall be: three Official flights of two minutes, followed by Fly-off flights beginning at three minutes and progressively increased by one minute. Fly-off flights may continue until the contestant's model fails to reach the duration limit for that flight. Only one attempt is permitted for each Fly-off flight. All Official and Fly-off flights must be launched prior to the end of the contest as determined and signaled by the Contest Director.

Carving a Propeller

One of the most difficult jobs of carving in balsa —or any other wood for that matter—is a model airplane propeller. Actually it is one of those jobs which appears *more difficult than it really is, for a propeller shape will develop automatically if a certain set technique is followed. This involves marking out a* block *and cutting it accurately to form a propeller* blank. *The blank is then carved edge-to-edge to produce a proper propeller shape.*

Producing a perfect propeller by carving demands a certain amount of skill—a skill which is only acquired by practice, so do not expect too much from your first attempts. But every propeller you do carve should bring you one step nearer the perfect article —when you can ultimately produce a piece of craftsmanship of which you can be truly proud. If you build rubber-powered model airplanes, too, you will know that the propeller is probably the most important single component of the whole model—and the better the propeller the better your flights.



PROPELLER BLOCK DIMENSIONS

DIAMETER	6"-8"	10"	12"	14"	16"	18"
W	1 1/4"	1 1/2"	1 3/4"	1 3/4"	2"	2"
T	3/4"	1"	1 1/4"	1 3/8"	1 1/2"	1 3/4"

A FAIRLY hard grade of balsa should be used for carving propellers, this having good strength when the blades are carved quite thin while still being much easier to cut and shape than a hardwood. The length of the block is determined by the diameter of the propeller required—approximately two-fifths of the wing span of a rubber-powered model airplane, for example.

The width (W) and thickness (T) dimensions of the block are then related to the length to give the correct amount of *blade area* and propeller *pitch*. The table at the bottom of the page gives typical 'W' and 'T' dimensions for different propeller diameters. If this is not a 'stock' size of balsa for the particular diameter of propeller you require you must buy the next nearest size up and trim the block to these required dimensions.

The block is then marked out in pencil in quarters, as shown. Use a metal square and draw these lines round all four faces of the block. Then mark the exact center of the block (on the widest or 'width' face) and drill a hole through the block. It is far easier to drill this hole true and square while you still have a square block than at a later stage.

The faces of the block are then further marked off as shown in the second diagram—marking out the bottom face just like the top, and the second side like the first side. Allow a width of $\frac{3}{8}$ to $\frac{1}{2}$ in. at the center for the hub on the top face, and a depth of one half the block thickness on the side.

These outlines mark the *cutting lines* for the *blank*. They are all straight lines and, as far as possible, should be *sawn* rather than cut with a knife as you can get a straighter cut this way. To carve a true propeller you must have an accurately shaped and *square* blank to start with. The blank, when you have finished cutting it to outline shape, should have the appearance of the bottom diagram.

You are now ready to start the actual carving, but first work out which way the blank has to be carved. For a conventional 'tractor' propeller—e.g. the type normally used on model airplanes—the blades are carved to have a twist from left to right. For a pusher-type propeller the

blades are carved in the opposite direction. This does not affect the working of the propeller so much as the way it must be *wound up*, it being easiest to wind up a propeller in a clockwise direction. The two prop-driven models described later (*see* pp. 16–17 and 18–19) should have *pusher-type* propellers carved for them. If they are fitted with a tractor-type propeller, it will have to be wound up 'backwards' to propel the model forwards.

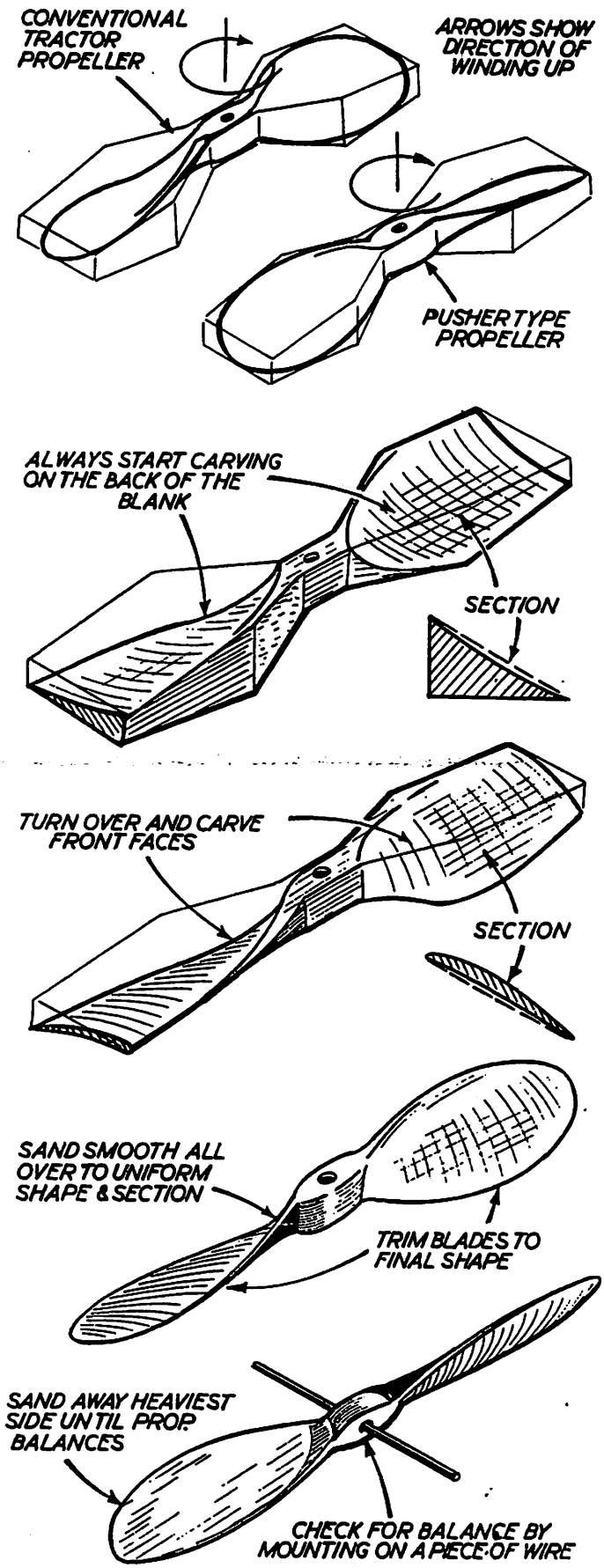
Now for the actual carving stages. Carving always starts on the *back* of the blank, cutting away wood from one edge and gradually working down until the whole of the back of the blade is carved out. A very sharp knife should be used for carving and only small cuts made at a time as otherwise there is a danger of the cut 'running' and removing too much wood from one edge. Each blade back should be carved down, in turn, until you have got a slightly *concave* surface from edge to edge. The final 'surfacing' can be done with fairly coarse sandpaper (e.g. grade 1½ or fine 2).

The blank can then be turned over and the two blade fronts carved, again from edge to edge but this time working to a more rounded surface so that the final blade section is like that shown. Remember that the blades are now getting quite thin and so you cannot bear down heavily on them while carving, otherwise you may split them. The nearer you get to the final thinning of the blades the lighter should be the cuts you take. Again you can do the final shaping with sandpaper.

Your propeller will still look fairly rough at this stage. The next thing to do is to shape the outline of one blade to a nice, pleasing curve. Then produce a similar outline on the second blade—using a paper pattern to get the two blade shapes the same, if you cannot judge this accurately enough by eye. Trim away the hub section, too, to blend into the shape of the blades and go all over the propeller with sandpaper to remove all 'flats' and irregularities. The propeller blade thickness should get progressively less from the center to the tips and the section should be uniform throughout. You can 'feel' the shape of the section by running the blade between a finger and thumb.

When satisfied with the appearance, slip the propeller on to a length of wire and check for balance. Almost certainly one blade will be heavier than the other, so sand off more wood from the tip of the heavier blade until the propeller will balance level on the wire. Then you can work all over the propeller again with fine sandpaper to produce a really smooth finish.

It is always a good idea to bush the center of a balsa propeller with a short piece of metal tube (or fit a proper threaded bushing). A useful tip too, especially for model airplane propellers, is to cement a length of thread right round the outline of the propeller blades. This protects the edges against damage and makes the blades less liable to split in a crash.



NFFS 2002 TEN MODELS OF THE YEAR

Fellow Modelers, **It's that time, again.....** 5 Sept. 2001

Each year the National Free Flight Society (NFFS) honors a group of noteworthy designs, as a part of the annual Symposium Report. These awards are known as the NFFS Ten Models of the Year (TMOY). The TMOY process is simple, and is started when nomination packages are submitted to the Chairman who reviews them for completeness and suitability. The chairman distributes the nominations to an appropriate review committee who determine the winners. The Chairman then sends winning nomination packages to the Symposium Editor for printing.

Nominations for this honor are accepted from anywhere in the free flight community and are typically for models of the modern era which exhibit unique design and outstanding performance as proven in competition. On occasion a special award is given for a unique component, tool or material which has greatly contributed to the advancement of an event or free flight as a whole. Nomination packages for either must include:

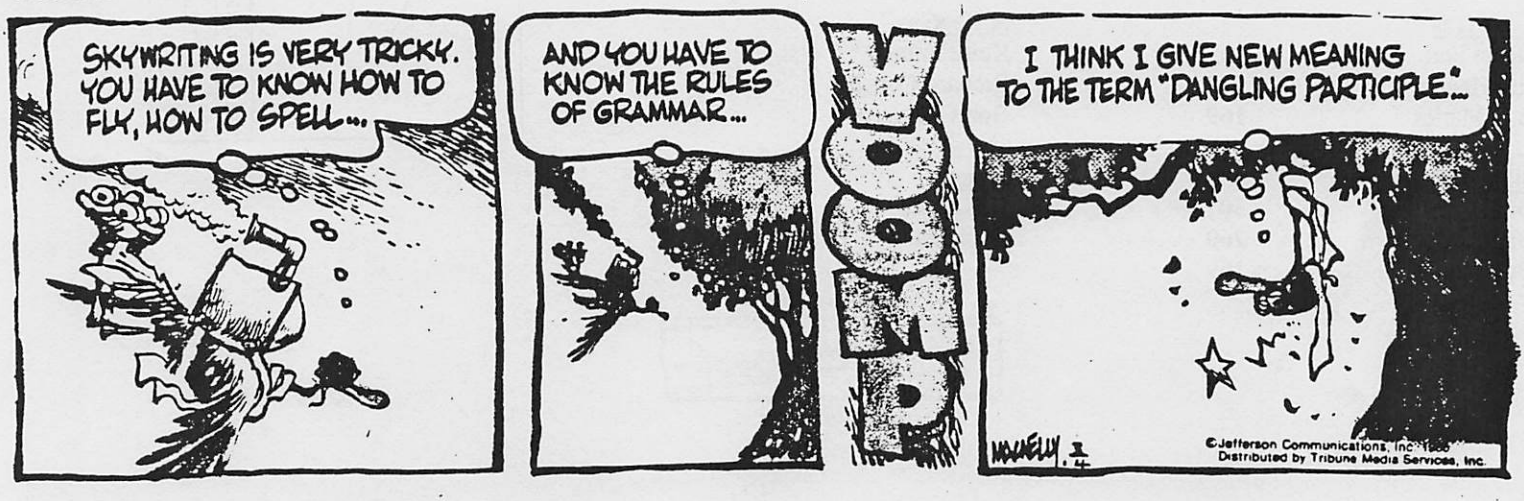
1. One-page description of model design and competition record, or unique contribution for a component, tool or material.
2. Resume of modeler/designer or inventor.
3. One-page three-view with dimensions.
4. Photograph of nominated item, and modeler or inventor.

Deadline for completed nominations is a postmark of 1 February 2002. This deadline is determined by publishing schedules and can not be neglected; therefore, late nominations will NOT be accepted. Nominators (not the Chairman) are responsible for the completeness of packages (all 4 Parts). Again, the major emphasis is on receiving "complete" packages by the deadline to ensure a smooth running process. Please send nominations to the address below.

Thank you for your nominations! Thermals!

Mike Roberts
Chairman NFFS TMOY
2435 53rd SW
Seattle, WA. 98116
Phone: (206) 937-2740

SHOE



NORTHERN OHIO FREE FLIGHT ASSOCIATION

Summer FF Contest Results, Muncie, IN June 30-July 1, 2001

A Gas

Norm Poti	900
Gib Robbins	876
Hank Sperzel	693

PeeWee 30

Bill Barr	2273
Bill Hale	2010
Don Boyer	1305

ABC OT Fuselage

Don Diggs	349
Gil Morris	324
Ted Dock	152

OT Rubber

Ed Sneed	1080
Nancy Sneed	967
Walt Tomasch	887

P-30

Bill Jackson	510
Ed Konefes	349
Frank Heeb	331

1/2A Nos PAA Load

Hank Sperzel	329
Charlie Harper	260
Bill Barr	213

.020 Payload

Rudy Kluiber	360
Bill Hale	317
Gene Bowers	283

HH Catapult Glider

Norm Poti	338
Phil Sullivan	225
Jason Poti	195

1/2A NosGas

Gene Wicks	595
Keith Fulmer	584
Charlie Harper	480

1/2A Gas

Norm Poti	559
Jim Haught	549
Bob Mattes	169

.020 OT/Nostalgia

Bill Hale	307
Bill Barr	260
Bob Mattes	169

P-30 Rubber, Jr.

Joe Tortorelli	280
Drew Coverdill	197
John Herrel	165

Classic Open Towline Glider

Guy Scott	196
Warren Weisenbach	193
Lee Campbell	179

B NosGas

Righard Covalt	688
Keith Fulmer	546
Dan Harshman	472

ABC OT Pylon

Hank Sperzel	344
Ted Dock	309
Dan Harshman	285

OHLG

Tom Jones	260
Phil Sullivan	153
Bruce Barnett	131

OHLG, Jr.

Joe Tortorelli	73
John Herrel	62
Ryan Jones	52

Moffet

Ed Konefes	540
O.C. Stewart	513
Joe Williams	481

1/2A Gas, Sr.

Jason Poti	311
Jon Reuter	237
Keith Barnett	168

OHLG, Sr.

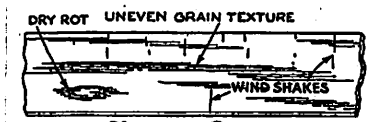
Keith Barnett	102
Jason Poti	94
Jon Reuter	76

A NosGas

Keith Fulmer	812
Richard Covalt	557
Bob Edelstein	360

Jetex

Bill Reuter	67
Tom Jones	18



Faults in Balsa

HH Catapult Glider, Jr.

Ryan Jones	169
Ryan Seymour	116

C Gas

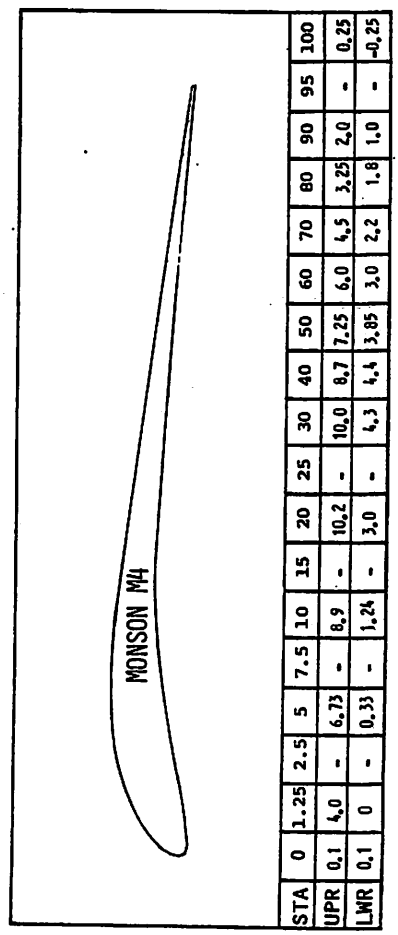
Richard Covalt	600
Gil Morris	360

Team HH Catapult Glider

Won by NOFFA team of R. Kluiber, C. Jones and T. Jones.

Hi-Point Champ

Norm Poti



CIA Club Point Claim Sheet - (See CIA Rule Book for details)

Scores may also be posted on the CIA website: www.members.aol.com/ciaffclub/cia.htm ________ pg ___

Member________________________ Open_____ or Jr/Sr_____ (under 19 by 7/1)

Date	Contest	Location	Class	Events	Model Design	Place	Points

2001 AREA F.F. SCHEDULE

Sep	1-2	COFFC FF Contest	Muncie, IN
	22-23	Flying Aces Midwest Nationals	Muncie, IN
	28-30	CIA 29th Annual FF Contest	Muncie, IN
Oct	1-5	SAM Champs	Las Vegas, NV
	6-7	Tri-County Aero Contest	Lawrenceville, IL
	6-8	Gathering Of Eagles	Pensacola, FL
Dec	28-30	48th King Orange International	Palm Bay, FL

The INFORMER

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