CENTRAL INDIANA AEROMODELLERS

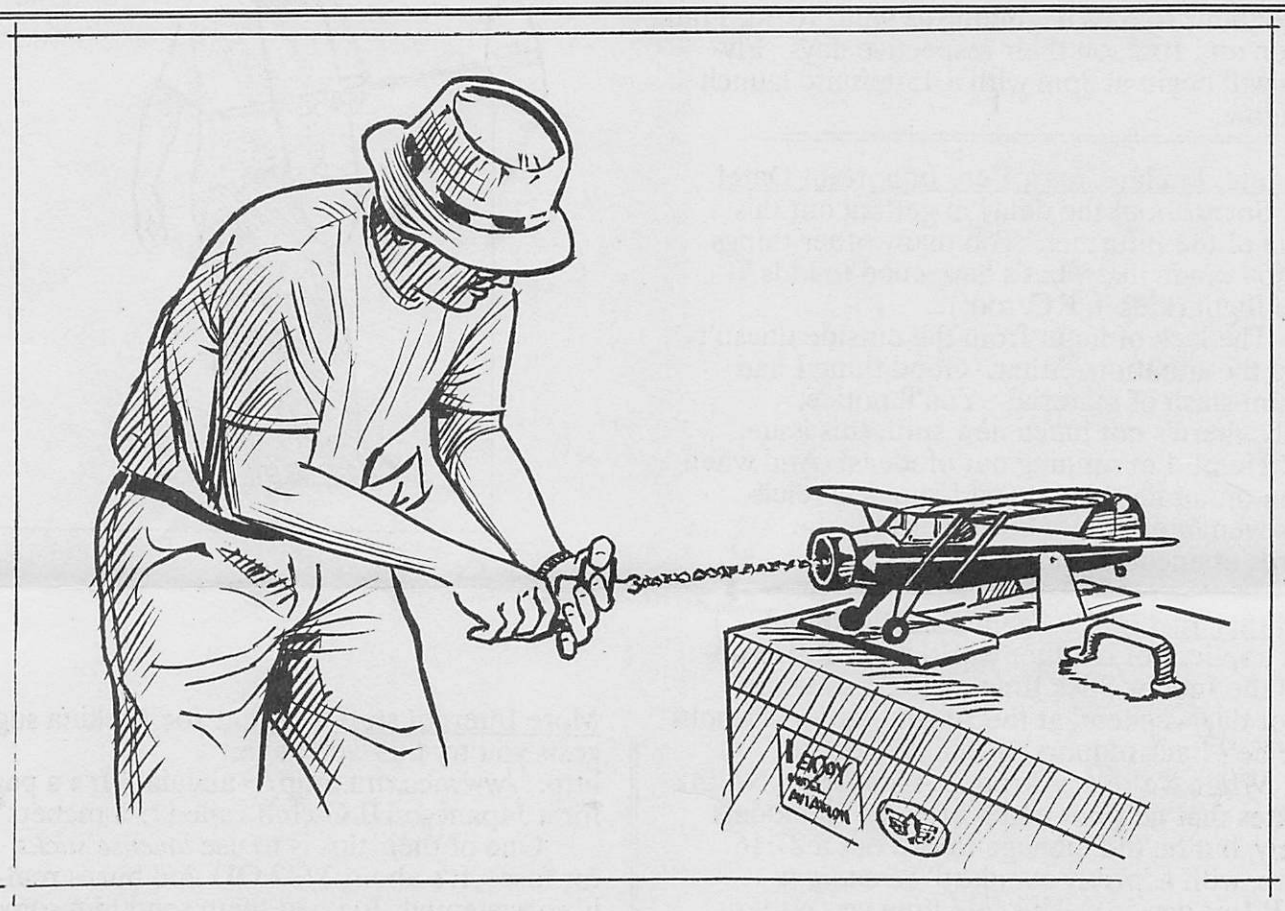
CIA INFORMER

FREE FLIGHT NEWS OF THE MIDWEST

** The Weather **
Are we in the wrong hemisphere?

- Editor -
Moe Whittemore
2348S, 700W
New Palestine
IN 46163

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NFFS Nostalgia Update 1996 ... by Bob Larsh

The new No. Six 1996 Rule Book is now printed and ready for distribution! The cost is the same as before - $3, plus two stamps. Please order direct from Bob Larsh - 45 S. Whitcomb Ave., Indianapolis, IN 46241.

The book has been revamped for clearer explanation of the rules as well as the addition of the new Early 1/2A Nostalgia basic event guidelines. New approved models have been added and the rules for the new Cox "Killer Bees" and various other engines are addressed.

All Top Banana and Ramrod flyers will be interested in the wheel requirement rule. Spark ignition enthusiasts will appreciate the newly approved elifibility of transistorized ignition systems. We believe this issue to be our best effort yet.

The 1996 NFFS Annual Nostalgia Championships held in conjunction with the AMA Nats at Muncie was well attended and proves once again that many are still interested in going back to the basics when models were much simpler to build and easier to fly. Many say that NOS puts the fun back into competing and modeling in general. A rough count of some of the entries was: 66 for 1/2A, 55 for A, 45 for B and 37 for Early 1/2A. Ralph Prey and the San Valeers started something, didn't they? The movement really took off when the NFFS adopted NOS under the guiding hand of Tony Italiano. Bob Stalick and Harry Murphy were a tremendous influence because of their support in columns, along with other magazine and club newsletter editors too numerous to mention. In addition, a number of influential modelers helped to popularize the event which das lasted some sixteen years, now.

The NOS Committee has been busy of late reviewing many new approval submittals. Watch

(cont'd p. 4)

Flash! Due to the cancellation of three America's Cup contests in the northeast, and thanks to the cooperation of the CIA and the SCAT groups, the CIA Fall Regional F.F. Meet (Muncie) has been approved as an America's Cup event for F1G, F1H (will be flown with F1A but will be tabulated separately for America's Cup points), and F1J. They will be flown in Five 1 1/2 hour rounds beginning as 9am, 10am, 11am, Noon and 1pm, on their respective days. Fly-offs will begin at 3pm with a 15-minute launch window.



I'm late, I'm late, for a Very Important Date!

Sorry about the delay in getting out this issue of the Informer. Too many other things to do - kinda like what's happened to kids 'n free flight (kids 'n RC, too!)...

The lack of input from the outside doesn't help the situation, either. Good thing I had a mini-stash of material. You'll notice, sadly, there's not much new stuff, this issue.

Help! I'm running out of ideas! And when I run out of ideas, the next issue gets released even later, etc.. (But thanks for the words of encouragement.)

and this, just in ..... Agent **Jim Richmond** just applied for another world record! He upped the Indoor Stick time to 56:35 over the labor day weekend at the Akron Airdock. Looks like he's back indoors, with a vengeance!

While we're at Akron ... Agent Jerry Nolin relates that he's not much fired up on models lately, but he did manage to eke out a 27:16 there, with a 'pretty standard' *Serendipity* EZB (his design). This fine time was gotten with a .050" x 15" Tan II motor, turning a 14d x 29p prop. (Jerry's sure the times will go even higher with the new, lighter plastic film now available.)

The buying of Cox by Estes a few months back may lead to the deletion of the line of Cox rotary valve engines! Apparently Estes will concentrate their marketing efforts on the schoolyard reed valve ARF stuff. Rumor has it that you better get your Medallions now! Hopefully, someone will buy up the tooling and continue on ....

Just in case, I talked my boss at the hobby shop into laying in a big batch of these engines after noticing that these slow movers (for our store) had recently sold out!

More Internet stuff ... Agent Joe Mekina suggests you try this web page: http://www.cc.rim.or.jp/~aiaiaiai/ It's a page for a Japanese HLG club called "Launchers".

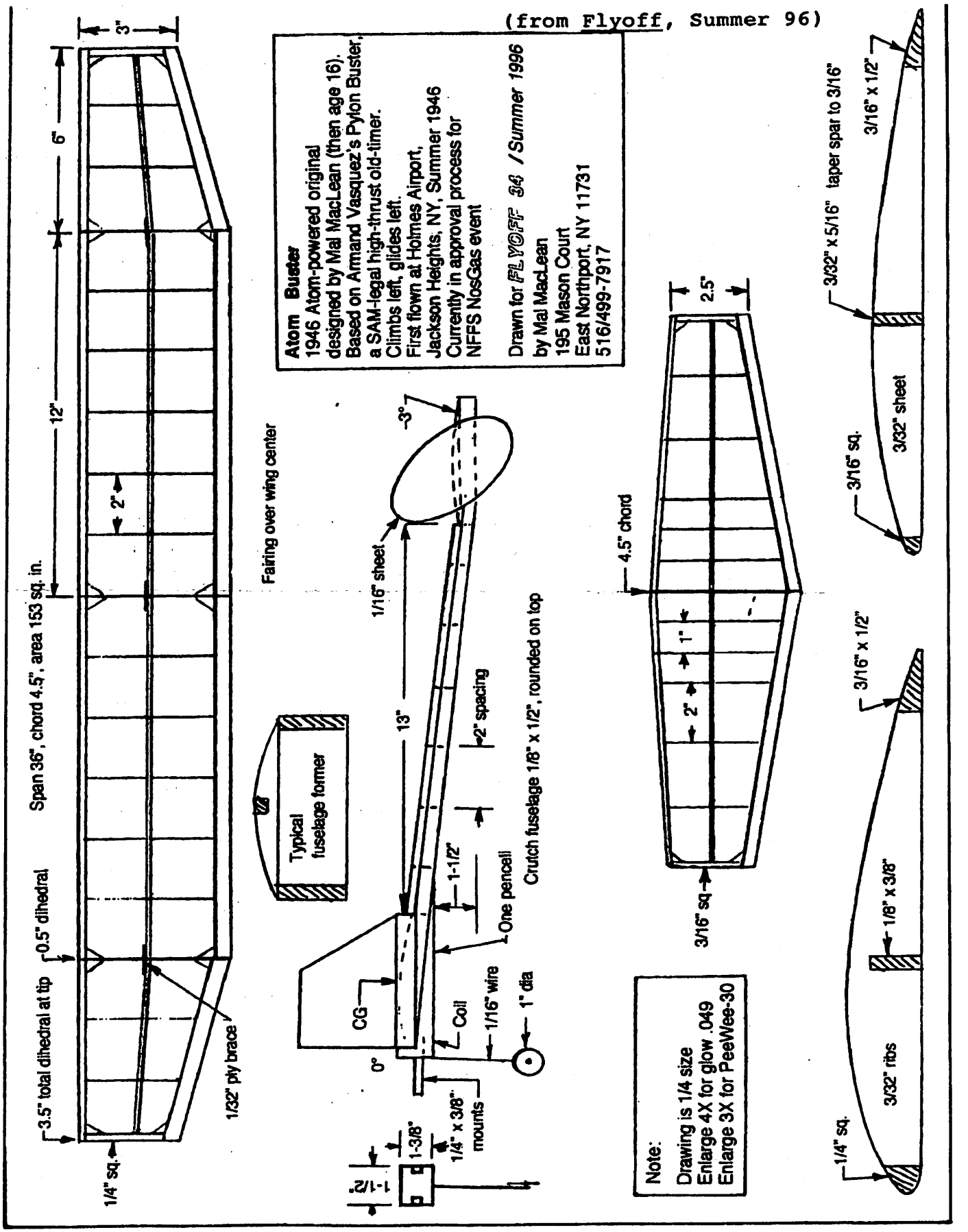
One of their tips is to use *incense sticks* for fuse! It's about 3/32 OD and burns really consistently! Joe had them send him some sticks, plus the best quality DT bands (#8, #10 and #12's) he's ever seen!

I'm bending my own 'copying' rules a bit by running a three-view of a neat old model that can be built to compete in different events. Stole it from the August '96 Bat Sheet.

(I'm not much of a gas flyer, but I might be persuaded to build this or "Natsneez" if anyone has a reasonably good old .09 ignition engine they'd like to part with. Drop me a line!) - MJW

Just a reminder .. 20 bucks (+ 3 for postage) sent to Fred Terzian, 4858 Moorpark Avenue, San Jose, CA 95129 gets you the new NFFS Symposium - chocked with practical F.F. goodies!

(from Flyoff, Summer 96)



(Nostalgia update ... cont'd)
Stalick's column and the NFFS Digest for announcements of the models that made the grade.

Just a final word to contest directors: models and engines still need to be closely checked. The weigh-in is important, but engines, glo-plugs, wings with unauthorized turbulators, etc. should all be checked for conformance. It seems that not everyone is aware or understands what constitutes rule infringements. For instance, Russ Hansen's April '96 Digest article on some of the modifications to make on T-Birds are illegal, and have been since the first Rule Book was published. The main problem is his addition of two spars in the upper front one-third section when only one is allowed. I think most NOS flyers are aware of this but Russ' comment that NOS rules allow top spars could jeopardize some contestants if they try to enter such a model.

In the interest of putting the brakes on the marathon power flyoff situation while simplifying the current state of the F.F. art, Agent **Dick Covalt** submits the following event proposal. Comments encouraged!!

CIA CLASSIC GAS POWERED FREE FLIGHT

PURPOSE

This Gas Power event is intended to redirect the design, construction, and competition of Free Flight model aircraft away from expensive engines, exotic materials, and complex in-flight trim functions towards less expensive and more readily available engines, conventional balsa wood construction, and traditional aerodynamics.

RULES

All AMA Gas Powered Free Flight rules apply in addition to the following. In the case of a rule conflict the following will supersede the AMA rules for this event.

1. CIA Classic Gas Powered Free Flight shall be a one class event encompassing engines sizes of .061 through .65 with no engine restrictions other than those in the AMA rule book for Gas Powered Free Flight.

2. The fuel supply system to the engine shall be "non-pressurized". The use of bladders, crankcase pressure, exhaust pressure, or any other method of pressurizing the fuel system is not allowed. The engine shall draw fuel by engine intake venturi action only. Fuel tank vents shall not be extended by flexible tubing for any purpose except to supply fuel to the engine or to block vents. One vent shall be left open to the atmosphere.

3. The aircraft may be of any design, but the only controllable functions or surfaces allowed shall be "engine shutoff" and "dethermalizer" (DT).

4. Official flights, scoring, and engine runs shall be in accordance with AMA Gas Powered Free Flight rules for the particular free flight category selected for the contest.

DISCUSSION

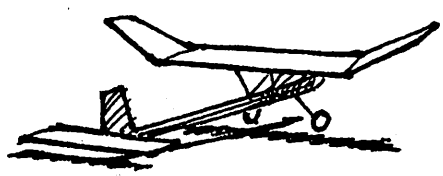
While the above proposal seems simplistic the effect on competition will be dramatic. Non-pressurized fuel systems will reduce practical engine RPM to under 20,000. About the level that would be expected from a good RC engine with a low pitch free flight prop. The very high RPMs of today's free flight competition engines requires very free breathing and expanded intake and exhaust port timing to maintain high output torque at elevated RPMs. This will not be nearly as effective if suction fuel draw is required and possibly (although it hasn't been checked) the most exotic engine timing would be at a disadvantage.

The elimination of "auto surfaces" will require the aircraft to **fly up** under power, rather than **rocket up** as is the case of the "bunt" or "VIT" ships today. Otherwise a reliable power-to-glide transition can not be attained. The traditional right spriral power pattern (or left spiral in the case of hi-thrust ships) will again become the most successful method of getting the aircraft to altitude and achieving a good glide recovery. This will effectively move the competition to what was prevalent until auto surfaces became common in the 1970s, making marathon flyoffs with today's reduced engine runs highly unlikely.

Undoubtedly, many objections will be raised to using a non-pressurized fuel system. In other words a tank is required. The inflatable bladder fuel systems used today is far superior to any other system both in simplicity and reliability, but a non-pressurized fuel system is absolutely required to level the engine playing field. A more advanced engine design will undoubtedly produce more power but the increase will be reduced significantly with the venturi intake restriction required to achieve fuel draw.

In summary, under these rules complex gadgetry, exotic engines, and exotic materials will not be required to fabricate a competitive free flight aircraft. Also, from the flying standpoint an engine starter while maybe convenient will not be the near necessity it is today with pressurized fuel systems. Free flight kits will again be competitive and this event can serve as an entry level class for larger engines and aircraft.

Now where was that hobby shop with the free flight kits, Perfect tanks, and Zaic yearbooks?



Richard Covalt
May 24, 1996

COFFC CONTEST RESULTS OF JUNE 1-2 1996

1/2A NOSTALGIA
1. Keith Fulmer
2. Jack Marsh
3. Elmer Jordan
4. Gene Wicks
5. Don DeCook

.020 REPLICA
1. Roger Lane
2. Harry Murphy
3. Bill Reuter

A/B GAS
1. Gill Morris
2. Don Diggs
3. Norm Poti
4. Jack Marsh
5. Bill Reuter

MULVIHILL
1. O.C Stewart
2. Joe Williams
3. Big Daddy Wane
4. Ed Konefes

BC OT PYLON
1. Ted Dock
2. Harry Murphy
3. Dan Harshman
4. Ed Konfess

JIMMY ALLEN
1. Ted Dock
2. Ed Konefes
3. Don DeCook
4. Roger Lane
5. Les Namlane

HLG
1. Joe Mekina
2. Phil Sullivan
3. Norm Poti
4. Bill Reuter
5. Meredith Chamberlain
6. Larry Willis

1/4 AMA
1. Keith Fulmer
2. Bill Burgess

020 REPLICA
1. Roger Lane
2. Harry Murphy
3.Bill Reuter

OT SM. STK/CAB
1. Don Diggs
2. Don DeCook
3. Ed Konefes

PEE WEE
1. Elmer Jordan
2. Vince Vilardo

OT LG STK/CAB
1. Ed Konefes
2. Larry Willis
3. George Batiuk
4. Joe Williams

ABC NOSTALGIA
1. Keith Fulmer
2. Tom Kirsch
3. Bob Delstein

A OT PYLON
1. Dan Marshman
2. Bob Edelnstine
3. Ted Dock
4. Don Boyer

HHCG
1. Joe Mekina
2. Norm Poti
3. Bill Reuter
4. Vince Vilardo
5. George Batiuk

MOFFETT
1. Joe Williams
2. OC Stewart
3. Ed Konefes
4. Larry Willis

CD AMA GAS
1. Mark Wood
2. Jack Marsh

F1J F1A
1. Jack Marsh
2. Gill Morris
3. Bill Burgess
4. Bill Reuter Jr
5. Steve Fraiser

P30/COUPE
1. Larry Willia
2. Walt Tomasch
3. Steve Sova
4. Vicik Wicks
5. OC Stewart
6. Les Halgarth
7. Joe Williams
8. Roger Lane

Jr. HHCG
1. Bill Reuter
2. Daniel Vest
3. Mike Wise
4. Jon Reuter
5. Jason Poti

Jr. P30/COUPE
1. Jon Reuter
2. Bill Reuter
3. Daniel Vest
4. Mike Wise

Jr. 1/2A AMA
1. Bill Beuter
2. Jon Reuter

Jr. HLG
1. Bill Reuter
2. Daniel Vest
3. Mike Wise
4. Jon Reuter
5. Jason Poti

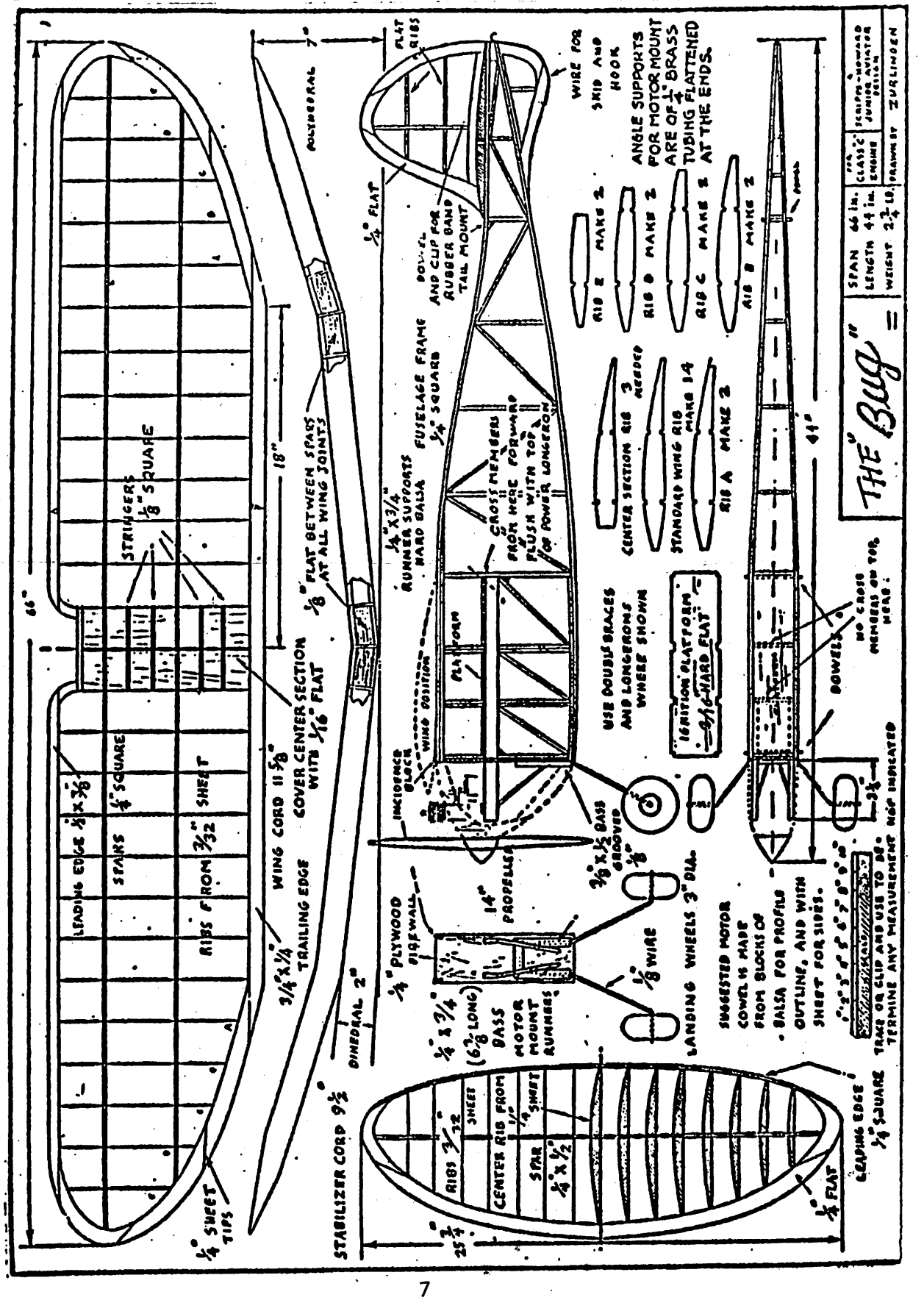
JUNIOR HIGH POINT

Bill Reuter	15 points
Daniel Vest	10 points
Jon Reuter	9 points
Mike Wise	7 points
Jason Poti	2 points

New Oldies - from Murph

Agent **Bob Larsh** sez this three-view (one of two found) showed up in a 1940 Evansville, IN newspaper that carried a syndicated Scripps-Howard Aviation section. Bob also said that Fred Williamson presented both to S.A.M. to check out, and are automatically approved by virtue of being published in the pre-WWII era for public use.

E-gads! 56 years ago and we're still discovering new oldies!!



RANDOM NOTES ON HAND LAUNCHED GLIDERS

The following compilation of OHLG tidbits were found on the Internet by Agent **Joe Mekina.** This collection of random notes was originally compiled by Agent **Jerry Barnette,** and applies to right-handers. Leftys, reverse .....

- ☐ Do not use a large stab or rudder. If the model is too stable, it will not make the transition quickly and without altitude loss. In handlaunch, the transition is everything. If the stab is too large, it will tend to let the plane fly even though it is really badly out of longitudinal (fore and aft) trim. You will wonder why adjusting the stab does not bring better flights, when the glider is basically out of balance. Too large a stab will keep the HLG from any snap recovery and the plane will fly through at the top of the launch. If too small, the stab will sink out at gliding speeds because some weight is carried by it.
- ☐ The stab should be tapered from the center outwards to approximately 1/32" at the tips. The stab leading edge may be relatively blunt. You do not want a stab that overlifts.
- ☐ Some people prefer an wing airfoil with a thin section and a high point 40% back from the leading edge. This type of section has less drag than a thicker wing section, but will result in a faster glide and less stability. A thicker section with a high point 25% to 30% from the leading edge may have slightly more drag, but also a better glide and will be more stable, especially in windy weather.
- ☐ In general, the rudder is too effective at high speeds, and not effective enough at low speeds. The solution is to use stab tilt for the glide turn, keeping just enough rudder for a transition.
- ☐ Offset the centerline of the wing 1/16" to the left of the centerline of the fuselage (SWEEPETTE).
- ☐ Cut out the fuselage slightly over-size to allow for stress relief in the tailboom area, then sand it down to the final shape.
- ☐ Arrange the wing so that the heavier panel is on the inside of the glide turn. Put built-in washin in the tip of the inside panel. The washin does two things; it makes the panel stall first, dropping the model into the core of the thermal; and it keeps the plane from spiralling too tightly once it is in the thermal.
- ☐ Resist the urge to make round edges on the fuselage! Rounding saves very little weight but seriously diminishes strength.
- ☐ Before the last coat of dope on the stab and fin, apply a strip of lightweight Japanese tissue to the rear half of both sides of the fin. Also, apply a 3/4-inch wide strip of tissue to the rear of the stab; top only on the left, and bottom only on the right. Apply the tissue with thinner. These tissued surfaces will be much easier to adjust later for flying trim.
- ☐ Use white glue for attaching the stab so that it may be easily removed for adjustments.
- ☐ John Oldenkamp, on his ZWEIBOX, tapers the 1/4" balsa fuselage on the right side only to approximately 3/32" X 1/8" at the extreme aft section. This taper, plus the airfoiled fin (flat on the left side), gives an automatic left turn. John glues the fin onto the side of the fuselage instead of on top.
- ☐ Bias-cut the finger rest from 1/4" X 1" trailing edge stock. The grain ends up in the proper direction and will take very little work to finish.
- ☐ The POLLY uses built-in rudder offset, 1/8" over 14.5" or 0.5-degrees. The POLLY does not use stab tilt. POLLY does not fly 0-0, but uses some incidence in the stab as a margin of safety of an off-launch. The BLACKJACK design by Larry Sargent also mentions incidence as one of the best kept secrets in HLG flying; it helps in the rollout and helps to avoid the straight up/straight down flight patterns. Use 1/32" to 1/50" of incidence at the wing leading edge.
- ☐ Tom Peadon (U.S. KID) recommends that the stab be 1/2" below the level of the wing. He can't give a good aerodynamic reason, but it has been proven over and over when he didn't adhere to it.
- ☐ Kit Bays uses a semi-symmetrical airfoil on heavier, windy weather HLGs. This type does not glide very well in still air, but it gives penetration and stability in the wind.

- ☐ Control glide turn with stab tilt.
- ☐ Control climb pattern with rudder.
- ☐ The four basic adjustments for HLG: A rearward center of gravity and zero decalage (no incidence in wing or stab) gives a loop-free launch. Slight left rudder provides launch turn. Stab tilt for left glide turn. Washin in left wingtip prevents spiral dives.
- ☐ When a handlaunch goes straight where you point it, and then fails to make a transition, it is only a tweak of up elevator away from perfection.
- ☐ If the plane turns too tightly in the glide stick some clay on the right wing tip and check the alignment of the rudder.
- ☐ If the model tends to climb in a wide, flat circle, you can probably counteract this by warping the trailing edge of the stab down, warping a slight part of left rudder, and throwing with more of an overhead motion.
- ☐ Basic Safe Trim: Left glide turn in stab tilt, wash-in of the left main wing panel, slight left rudder. May also skew the wing, right wingtip forward, to help the left-turning transition. Similarly, offsetting the wing (about .06") to the left helps save tip weight and bending. Bend wash-in into the left wing progressively from none at the wing root to about 1/16" to 3/32" at the polyhedral break (none in the tip). Bend in equal amounts of "up" on both sides of the stab until the glider has a slightly stalling glide. Put in enough stab tilt to give a hint of left turn when hand gliding. Properly trimmed, the glider will do a 220-degree to 270-degree climbing turn, and then drift gently into a left glide turn.
- ☐ Having the model pointing downwind after the transition will help keep the glider from stalling as its airspeed decreases. You may notice that planes that transition facing the wind tend to stall and lose altitude, especially if it is windy. Having a downwind transition will also allow you to wait longer before throwing into a thermal.
- ☐ Symptom: instead of spiraling around in a smooth climb, the HLG just slow rolls in a more or less straight line. Problem: the glider is shy on "up". Cure: add more up in the stab (leave center of gravity as on plans). This will make it climb more quickly and roll more quickly. Take out stalling in the glide with stab tilt. An incorrect launch does not usually cause this problem.
- ☐ Symptom: the model spirals around only about 90-degrees; then the wings level and the model noses up into a stall. Problem: the model was either thrown with too much bank or has too much "top" rudder. Cure: take out left rudder and/or add more wash-in to the wing. Bank the model less or launch more skyward. Sometimes more "up" may be needed. The glide circle may be readjusted with stab tilt if necessary.
- ☐ Symptom: the model patterns very tightly or loops. Problem: the model has too much "up", or was thrown with too little bank or too much skyward. Cure: take out some up. Open the glide circle by backing off the stab tilt. Throw at a little lower angle or with a bit more bank (go easy). If the model has a tendency to spin-in in the glide, add more wash-in to the wing.
- ☐ If the model tries to spin in on the glide, add washin on the left wingtip. If the spin persists, reduce the left rudder tab.
- ☐ If the glider goes way up, does 180-degree vertical reverse, slams straight back to earth, then add more "up" to the right side of the stab.
- ☐ Problem: the model climbs to the right, but stays in the bank too long and loses altitude, still in a banked attitude before leveling off and turning left. Cure: too much decalage (angular difference between angles of attack of wing and the stab). Warp stab trailing edge down; or, warp right trailing edge of stab down and left trailing edge of stab up. A less-preferred cure is to add more left rudder.
- ☐ Problem: the model climbs straight or to the left and does a Dutch Roll; and, when you try to correct this by using a sidearm throw, the glider now banks sharply to the right and goes into a shallow banked climb. The glider seems to alternate between the two extremes. Cure: fin is too small. Possibly, the glider has too much dihedral.
- ☐ If the glider goes up in a proper spiral, then falls off at the top and stalls: difficult solution, but initially try a tweak more right tab at the bottom of the fin (ZWIEBOX) or a smidge more "down" on

the left side of the stab.

- ☐ If the glider does everything almost perfectly, but spins to earth at the slightest upset: maybe the CG is too far aft, but more likely the left wing panel washin is too shallow.
- ☐ If the model pulls out of the initial right bank, goes vertical, and tends to barrel roll to the left and possibly runs out of oomph upside down, then tweak a little "down" into the right side of the stab.
- ☐ The following trim scheme is from the CHALLENGER article and could be used as a starting point. It should produce a launch pattern almost vertical in attitude, with a slight turn, maximum altitude, and a flick-out transition on top. Before flying, set up the model as follows: Bend the fin to the left slightly (Just bend the surface by squeezing the wood slightly between your thumb and finger, compressing the wood on the inside of the bend while stretching the wood on the outside. Bend the left side of the stab (rear) slightly down. Bend the right side of the stab up slightly more than the left side was bent down. The ZWEIBOX also uses this stab tweaking up/down. This contributes much to the flick rollout. If the model stalls in the glide, add a little clay to the nose. If the model dives (it shouldn't if you bent the stab up enough), bend the right side of the stab up a little more. If the model sweeps over on its back on the launch, there is too much up on the right side (or not enough down on the left side). Throw again and adjust until the model is going almost straight up. If there is not enough left rudder, the model will go too much to the right and have a very wide glide circle. The model has to go slightly to the right on launch to get a proper transition. Too much washin in the left main panel will lift the wing on launch, making transition difficult and increasing the glide circle. Keep adjusting the stab and rudder to control the launch; add or remove noseweight to control the glide. A full-power launch is almost vertical at 75-degrees to 80-degrees with slight tilt to the right, and almost overhand. If it is launched too near the vertical, it will come over backwards with usually poor transition. If the model, on a proper launch, sweeps back or even loops near the top, this means too much up-bend; reduce the up-bend on the right side and/or increase the down-bend on the left side. If the model comes into the transition a little shaky, makes a fast run, and loses a little altitude before settling into its proper glide, it can usually be corrected by any or all of these adjustments: bend the right stab up a very small amount, decrease the down-bend on the left stab slightly, remove a small amount from the washin tab, or reduce the left rudder bend slightly.
- ☐ An alternative trimming scheme is a little bit of washin in the right inner wing panel, stab tilt for a left glide, and a bit of right rudder tab to prevent the model from spinning in when in a thermal. This technique is used by Martyn Cowley (GOLDRUSH). Martyn says that it may sound like a spiral dive waiting to happen, but that it is great for trimming the throw part of the climb - just like a Power model, rolling left while turning right.



MID-AMERICA F. F. CHAMPS !

MID-AMERICA AIR CENTER

LAWRENCEVILLE, ILL AMA SANCTIONED SPONSORED BY TRI COUNTY AERO CLUB
OCTOBER 5 AND 6 1996 SATURDAY OCT. 5 9:00 AM -5:30 PM
PRACTICE/TESTING FRIDAY OCT. 4 SUNDAY OCT. 6 8:00 AM -4:30 PM

ENTRY FEE $10 1ST EVENT--$3 ALL OTHERS JUNIORS $2 PER EVENT

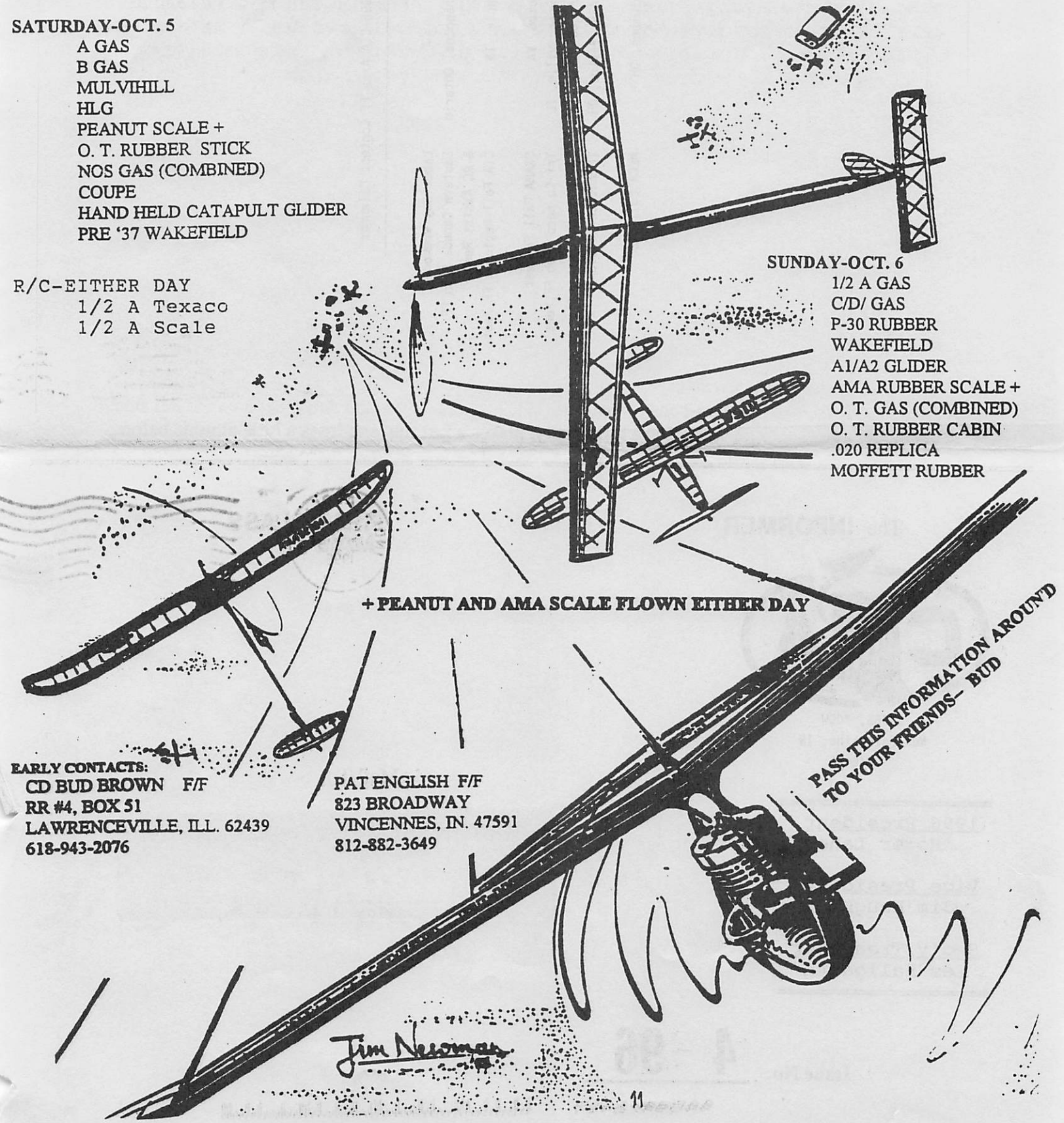
SATURDAY-OCT. 5

A GAS
B GAS
MULVIHILL
HLG
PEANUT SCALE +
O. T. RUBBER STICK
NOS GAS (COMBINED)
COUPE
HAND HELD CATAPULT GLIDER
PRE '37 WAKEFIELD

R/C-EITHER DAY
1/2 A Texaco
1/2 A Scale

SUNDAY-OCT. 6

1/2 A GAS
C/D/ GAS
P-30 RUBBER
WAKEFIELD
A1/A2 GLIDER
AMA RUBBER SCALE +
O. T. GAS (COMBINED)
O. T. RUBBER CABIN
.020 REPLICA
MOFFETT RUBBER



+ PEANUT AND AMA SCALE FLOWN EITHER DAY

PASS THIS INFORMATION AROUND TO YOUR FRIENDS-- BUD

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618-943-2076

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823 BROADWAY
VINCENNES, IN. 47591
812-882-3649

1996 CIA Area FF Contest Calendar

Sep	2	---	Labor Day Weekend
	7/8	Gananoque, Ontario	Eastern Canada Open FF & RC Assist Meet
	14/15	Muncie, IN	CIA Fall Regional FF Meet
	21/22		
	28/29	Cuckoo, VA	CAAMA Fall FF Meet
Oct	5/6	Lawrenceville, IL	Tri-Co Aero Club FF Meet
	11-16	Pensacola, FL	SAM Champs
	12/13	WPAFB, Dayton, OH	(Practice Session)
	26/27		
Nov	3	Columbus, OH	MECA Collecto

The INFORMER

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New Palestine, IN
46163

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Vice President
Jim Haught

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Les Hallgarth

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