CENTRAL INDIANA AEROMODELLERS

# INFORMER

FREE FLIGHT NEWS OF THE MIDWEST

** The Weather **
*Wet 'n Wild!*
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- Editor -
Moe Whittemore
2348S, 700W
New Palestine
IN 46163
(317) 861-4266
mjwhitte@ix.netcom.com

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This Informer issue is an extremely tough one for me to do. **Harry Murphy** died on Christmas day as a result of a cerebral aneurysm that occurred the previous Thursday. His death was especially heartbreaking, as Harry was just beginning to feel well again following a series of undeserved medical setbacks over the past few years. He was really looking forward to the upcoming flying season.....

This issue includes selections about Harry and his models that I managed to glean from various NFFS Symposiums. A bit ironic, for a big fan of the NFFS as Harry was, he had little use for that "technical Sympo stuff" - always giving me an argument when I'd refer him to some neat article I'd just read there!

The following are some miscellaneous musings pertaining to Harry, as I recall him.....

* He was one of Free flight's greatest advocates.
* He is an NFFS Hall-of-Famer.
* He just bought a new ATV to ease the model chase, next season.
* I finally forgave him for dumping the Informer on me in 1986.
* And he continued to contribute articles, even when he'd rather not - just to bail me out!
* He was a friend.
* He was 'Headstrong Harry'. This side of him was at it's best during CIA meetings.
* He was the CIA Banquet's best toastmaster.
* Did you know? Even tho Harry was in charge of computerizing his department as a GM manager, he never did finish setting up his own personal computer at home!
* Harry kept records of event participation at our contests. He shared these stats with us at our meetings. If an event dropped 2 or 3 contestants from the previous year, Harry was ready to chop it and add another new one to take it's place! (I had to fight to keep Coupe on the card....) That's how many of our 'new/old' national events got started - first tried out as an add-on event after regular hours on a Saturday evening at a CIA regional contest.
* Some of Harry's creations: *Pay-Triot*; *Max-A-Million*; *Nit-Wit*; *Half-Wit*; *Lunar-Tic*; *Sleepwalker* and *Sunduster* (I've been told...). And Harry was the best at dreaming up names for his planes.

Some tributes from others follow. From Bob Stalick: "Harry was one of the initiators of the Nostalgia movement, and single-handedly wrote the rules currently in use for early Nostalgia. He was a member of the CIA and a frequent contributor to free flight publications."

"For a while, he was the free flight correspondent to Model Aviation Magazine. We were in regular correspondence over a number of years about the Nostalgia movement and other free flight related topics."

"Harry was a solid thinker and convincing persona for the movement. His contributions have been many."

From Joe Mekina: "I share the admiration for Harry and his love for free flight."

"I can personally say he was a true sportsman who not only loved free flight, but always had time to talk to you. I will miss him!"

From Bob Perkins, as spokesman for the COFFC: "All of us in the COFFC are saddened and dismayed about Harry's sudden death. We respected Harry for his huge talent, honesty and integrity - but even more so because of his wonderful and interesting personality."

"But words are difficult to find that come

(Cont'd p.2)

(*Harry Murphy* - cont'd from p.1)
close to describing the sense of loss felt by our group. He will be missed."

"As a way to honor and forever remember Harry as a great modeler, I would like to propose that the new NFFS National Cup for Nostalgia be named for Harry Murphy. I am confident that NFFS President Bob Stalick and the district VPs would look favorably on the proposal. Further, I suggest that the CIA and COFFC clubs together support the purchase of the perpetual Silver Cup for Nostalgia, which will be awarded annually at the AMA NATS/USOC to the overall winner of the NC Nostalgia events."

"Our best wishes and love go out to Phyllis and family, and to the many friends of our flying buddy."

*Goodbye, Harry.....* - MJW

Agent **Bill Hale** says that there will be no more MECA Collectos in Columbus, OH until further notice! Apparently the Quality Inn Motel doesn't want the event there anymore..... Bill will keep us advised as to any changes.

And Bill's trying to find someone to take over as Region 9's Director. Any takers??

Agent **Norm Poti**, chairman of the *NFFS 10 Models of the Year 2000*, would like us to know that he's taking nominations for models "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' must include:

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

Additionally, all text must be submitted electronically - preferably in Microsoft Word format, via email or diskette. **Deadline for completed nominations is a Feb 12, 2000 postmark.** Please send nominations to the address below:

Norman Poti
Chairman, NFFS TMOY
5695 Marshall Rd.
Dayton, OH 45429-6022
Ph: (937) 439-4831
email: ndpoti@aol.com

## C.I.A. Winter Banquet Time Again!!

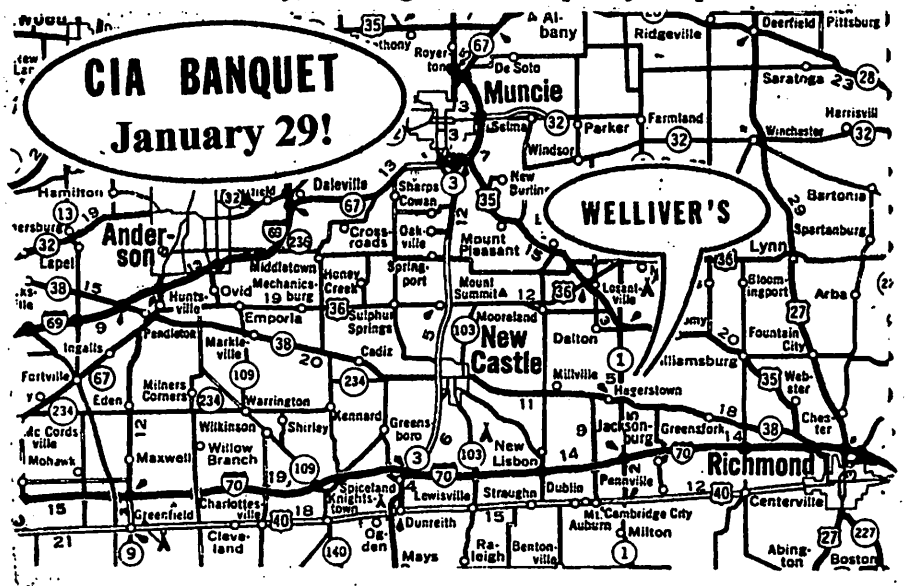
After T'giving and Santa's visit, comes our annual CIA Awards Banquet - staged at our usual haunt: **Guy Welliver's** smorgy in Hagerstown, IN. The date for this event is **Saturday, January 29th, 2000**. Come one, come all!! There'll be door prizes, attaboys and insults! Don't miss it!!

Dinner tabs are: Adults = $17.50; youngsters 10-11 = $8; 7-9 = $6 and 2-6 = $3. The chow line forms at 7pm sharp - come earlier for 'happy hour'. And the food never runs out!

Contact **Meredith Chamberlain** - 5810 Madison Ave., Anderson IN 46013. Ph: (765) 643-1885, by Monday Jan. 24 so we may confirm the number of attendees to Guy, insuring we'll have plenty of space to squat! Please supply the names and ages of youngsters in your party.

A combo of Klub Klowns will be wielding the ol' baton and passing out the goodies! 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!

Don't fret if the weatherman predicts snow, ice, or whatever - because it hasn't materialized for about 9 years! Plus you have all day Sunday to get back home! Let's have a banner turnout. See ya thar!



# HARRY MURPHY

Harry Murphy's modeling career began many years ago in rural Indiana, when he built the 10¢ kits so popular 'way back when.

These days, he flies a few AMA events, but his principal interest is in the Old-Timer and Nostalgia Gas classes. His Comet *Zipper* is a consistent winner, and I believe he has built or created every size *Zeek* known to man.

He has also designed a number of highly-successful AMA contest models, including the *Sunduster, Nit-Wit, Lunar-Tic, Max-a-Million* and the dominant Payload model of all time, the *Pay-triot*.

He was a co-founder of the Central Indiana Aeromodellers some 20 years ago, and edited that club's highly-regarded newsletter, **The CIA Informer**, for many years.

Although he took early retirement from General Motors, he's still plenty busy. He's the alternate-month "FF Duration" columnist for **Model Aviation**, is a CIA club officer, CDs a couple of contests each year, contributes heavily to **The Informer** and keeps as full a contest schedule as anyone, with regular trips to the USOC and SAM Champs in addition to a full slate of local/regional AMA contests.

Still, he's never too busy to help anyone who asks, and I don't believe he has any greater joy in life than when he spends time in his workshop with grandson Bryan, teaching him all the good things Free Flight has to offer.

He is a self-proclaimed "hard-headed Hoosier;" it's almost pointless to argue with him, no matter how wrong he is! However, you must look beyond that hard head to the best part of this man: The undeniable truth is that Murf loves Free Flight as much or more than he did as a kid. More than that, he has worked tirelessly to keep Free Flight alive and prosperous.

He's a mover and shaker—a motivator who can push buttons and light fires under folks he feels can help achieve a particular FF goal. He was a major force in the development of the Nostalgia events so many of us enjoy, the USOC and the NFFS reorganization. Many other Free Flight products have felt his influence.

He is one of the few active competition modelers who encompasses the full FF spectrum: he loves the Old-Timer and Nostalgia models, flies the current




Bill Baker

*Harry Murphy*

AMA events and writes rules proposals which show a concern for our hobby's future.

Without his prodding and encouragement, Free Flight activity in the Midwest would be a fraction of what it is today. All Free Flighters—especially those of us in the Midwest—owe him a tremendous debt. For this, as much as his other accomplishments, he deserves to be in the Hall of Fame with the others who have given so much to Free Flight.

*—Jim Haught*



## HALL OF FAME INDUCTEE

NATIONAL FLYING SITE

SEPTEMBER 4, 1993,
MUNCIE, INDIANA

# MAGIC SHAPE

**By HARRY MURPHY**

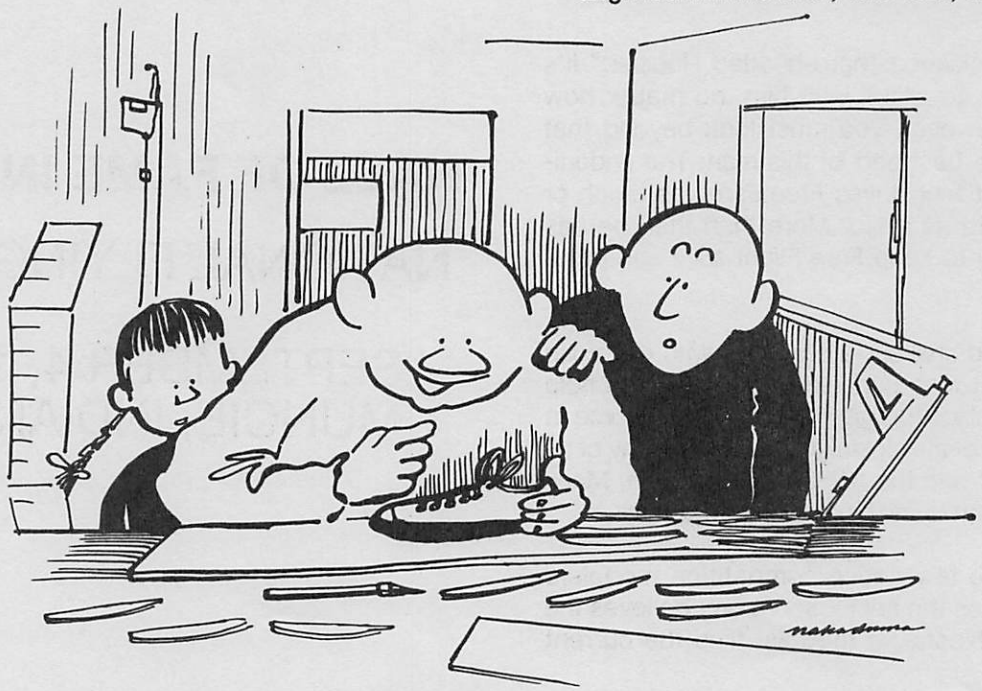
Do any of you really "design" airfoils? Or do you choose from a book, magazine, or another model design? Regardless of the source or of our individual understanding of the appropriate aerodynamic theories, we all admit that some airfoil sections seem to be more efficient than others depending on their use as to rubber, gas, glider, indoor, outdoor, AMA or FAI. The best model designers are not necessarily those who can claim degrees in Aeronautical Engineering, so I conclude in regard to airfoil selection the designer of a successful model might have been more influenced by his past experience and observations than by technical expertise—or at least his formal technical capabilities may lie somewhere on the low end of the gradient between the two extremes. In an attempt to oversimplify the "choice" of an airfoil section for an intended new free flight gas design, let us first analyze our options; (1) there is the wing chord which is generally effected by the aspect ratio to be incorporated; (2) the thickness of the airfoil at its hi-point; (3) the location of the hi-point itself; (4) and finally we must draw some semblance of a nice smooth curve from front to rear of the section to have it appear similar to all the other airfoils that we have seen. Once we were also concerned about "undercamber"—how much and where placed—but flat-bottomed airfoils for gas designs are currently so popular we shall pass over the topic.

If we should set fixed dimensions for the first three parameters for a hypothetical 1/2 A gas design such as a 6" chord, a 10% section, and with a hi-point at 30% of the chord—then have a half-dozen modelers sit at drawing boards and design a typical airfoil with identical French curves—we would probably receive 6 different airfoils—yet if overlaid one atop the other they would all be quite similar. Since a flat-bottom airfoil with these parameters is as popular as hot dogs at a ball-game, we could probably research a couple hundred past designs and come to the same conclusion. The point being that many airfoils are quite similar and top contour differences are often very slight.

So, just how important are these small differences? Ribs on plans and in kits or those discussed in books and magazines have nice smooth contoured curves across the top surface. Have we not all been trained to respect this "magic shape" as we proceed with each wing

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***Harry Murphy,** 3824 Oakwood Blvd., Anderson, IN 46011...designer of LUNAR-TIC and PAY-TRIOT...built a 10¢ Comet Aeronca K seaplane at age 11, used buttons from grampa's long johns for wheels after gramps stepped on the floats...first gassie a Stanzel Super G Shark, then a Zipper with a Dennymite...member Purdue Aeromodelers...attended most Nats since '48...half dozen wins...cofounder CIA (Central Indiana Aero.)...editor CIA Informer...G.M. engineer...married, one son, one daughter.*



"I really didn't start doing well till I hit size 11."

we construct to enable attaining the intended performance of the designer's original model? This we do religiously. Would we not expect something other than intended in performance if we would choose to alter this shape even the slightest?

Let us further suppose that our original 6" chord section is to be incorporated into a 40" wing and we place 20 ribs at 2" increments accordingly. This would result in 20 locations that are evenly spaced along the wing where our "magic shape" is exactly as intended and the top surface is a smooth curve that matches our "designed contour."

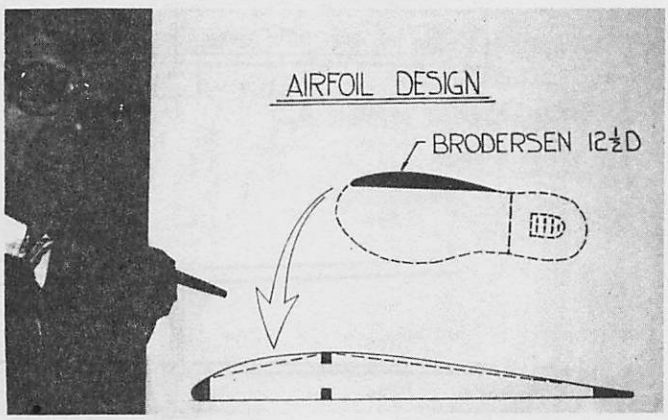
However, what happens at those "thousands" of locations in between where we have open framework construction and the intended airfoil shape has no contour support and where doped tissue, silk, silkspan, or plastic film is stretched between the ribs and spars? Theoretically, in these areas we could, and very probably have, drastically deformed our smooth contoured "magic shape" to a series of straight lines or deformed curves terminating with each other at the various multi-spar or turbulator locations as they are tracked from leading to trailing edge across the top of the wing. What we really have then are many more varied "jagged" surface sections than our original 20 "ideal" smooth curve sections.

With more top spars incorporated, or should we sheet a portion or all of the top surface of the wing, we come closer to maintaining our "magic shape." Here, we ask the question—"Is it worth it?" If we are to assume that it is, then we accept the penalty of the added weight of the spars or sheet stock. But will the model perform sufficiently better to offset the added weight (or trouble and expense?). Should we turn our backs to the realization that we are accepting something considerably different from our ideal section at locations other than at the rib locations, then we are not facing the facts. Considering the "real world" result of a typically constructed wing, would any one of 6 wings that may have been built using our original 6 similar "test sections" have performed equally well when compared to one another?

Should we then ponder these "real world" results of a covered open framework airfoil section, we should probably conclude that there may be more important design considerations than this "magic contour" across the top of the airfoil. What then are the more crucial aspects of airfoil design?

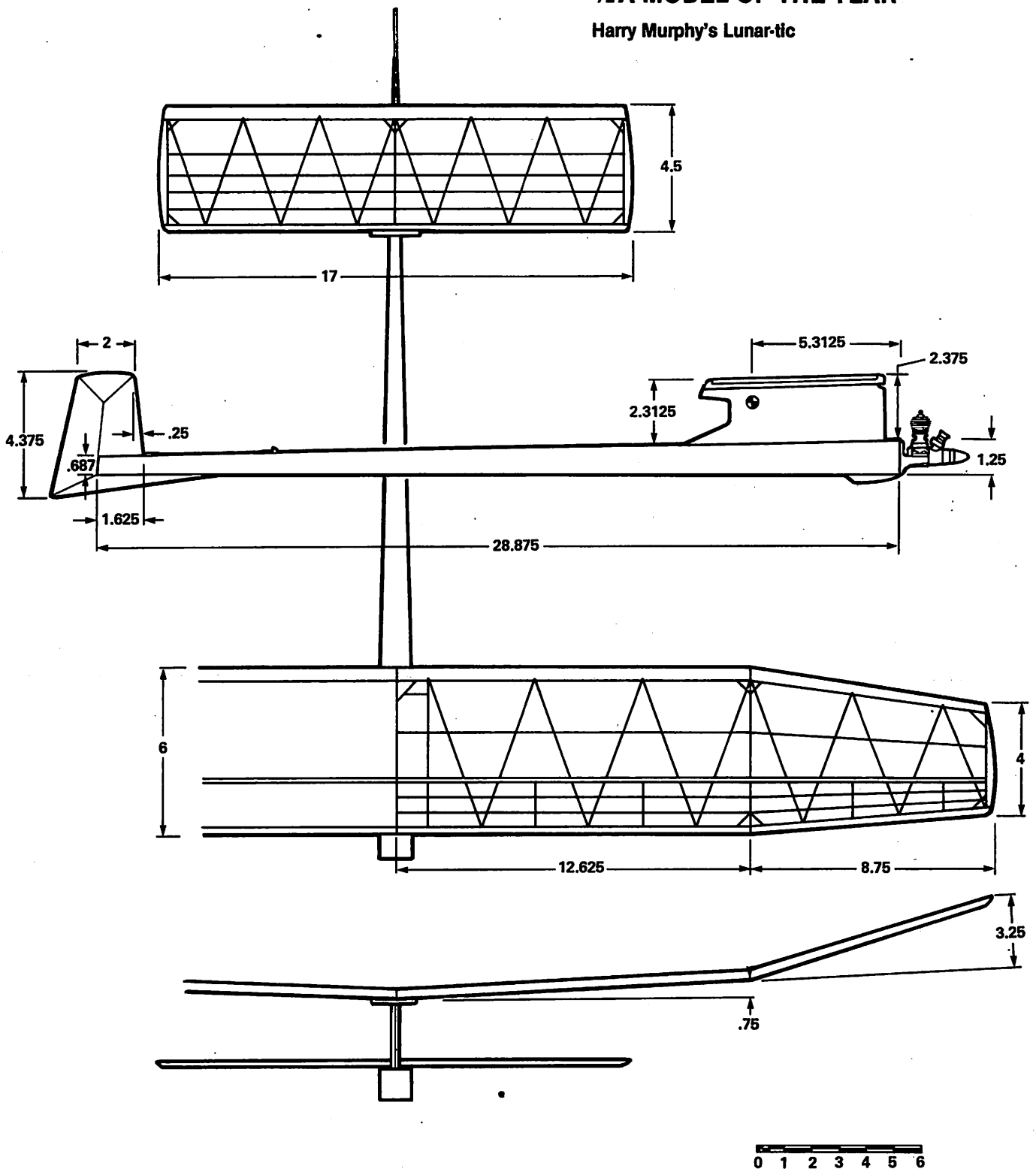
A review of a number of current popular 1/2 A Gas designs indicates the average aspect ratio of the wing to be in the 7:1 range plus or minus a half. This is a rather narrow variable that pretty much locks in the wing chord at about 6". The 30% of the wing chord for the hi-point of the wing thickness is nearly unanimous in all designs surveyed and could nearly be considered a constant. Since you may still be scratching your head regarding our foregoing rhetoric in attempting to prove the possible "real world" flexibility of the actual top surface of the airfoil shape, we are left with only one remaining variable—airfoil thickness.

In analyzing a number of popular and successful gas model designs, this factor appears to vary more than any other crucial dimension. While most fixed-tail designs seem to incorporate wing thicknesses between 8.5 and 11% of the wing chord, FIT designs go as low as 5%. Obviously the latter encompasses the FAI designs where initial altitude is so essential for heavy wing loadings and is attained by increasing model speed to achieve the desired altitude—then, requiring VIT features to increase wing incidence to near stall conditions in attempts to maintain it. This option of airfoil thickness which varies as much as 50% of the apparent acceptable range could be the significant factor to consider the next time you drag out the old drawing board.



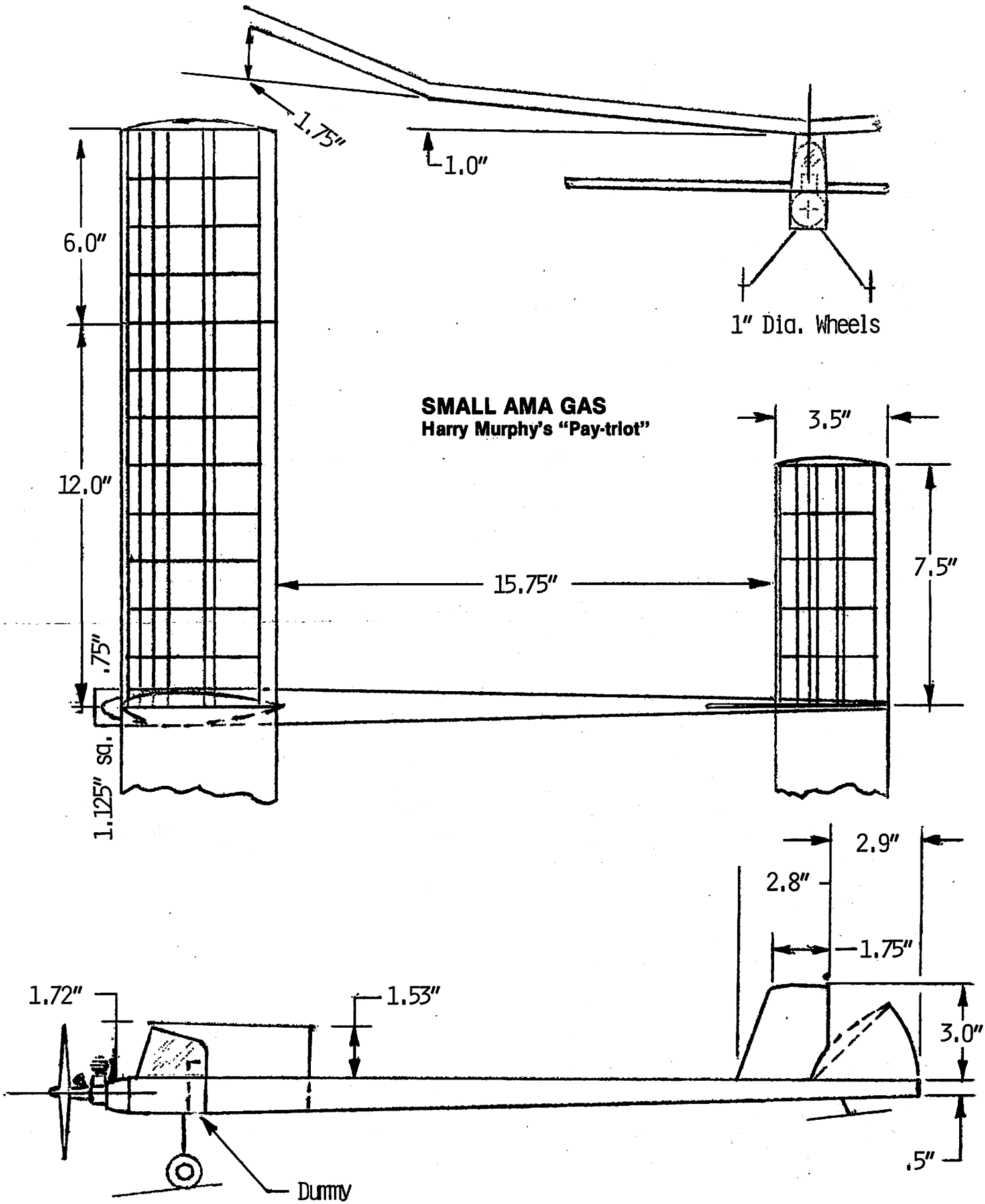
## ½A MODEL OF THE YEAR

**Harry Murphy's Lunar-tic**




# Lunar-Tic

DESIGNED BY: HARRY MURPHY
DRAWN BY: JOE MC CARTHY


1.75"
1.0"
1" Dia. Wheels
6.0"
12.0"
SMALL AMA GAS
Harry Murphy's "Pay-triot"
3.5"
7.5"
15.75"
.75"
1.125" sq.
2.9"
2.8"
1.75"
1.72"
1.53"
3.0"
.5"
Dummy

**Scale stuff!** (Part II) - by Jim Miller

Prior to building a scale model for competition, there are several things to be considered. All FAC Scale, Peanut, Pioneer and Power models are judged. There are certain criteria judges use to determine the scale score.

A good 3-view is indispensable to prove what the real aircraft looked like. You will discover that some 3-views are better than others. It is wise to choose the one that most closely resembles your model. Sometimes, 3-views are difficult to find. This is particularly true of Pioneer type aircraft (built before 1914) or those manufactured in a country other than the U.S. A good photo can sometimes substitute for a 3-view, but it must show the plane to good advantage.

Color documentation can be made with a color photo or a magazine picture in color. Sometimes you can find proof of color in the narrative description of the aircraft. Before you cover your model, you should make sure you have some proof that the color you used was actually used on the prototype!

If you are competing in a FAC contest, you will discover that Construction and Details accounts for 30 of the 62½ points possible in scale score. The easiest deduction for a judge to make is for any detail you have neglected to place on your model. Flying wires on biplanes and control cables on rudders and tails are difficult to install. I can tell you from experience that this lack of attention to detail can cost enough scale points to lower your total score significantly.

If you are able to finely fabricate an exposed engine with cooling fins on the cylinders, plus exhaust stacks, a judge's opinion might be swayed to the point where he won't place an undue penalty for lack of wires. A finely crafted machine gun is universally a "thing of beauty" on a WWI model. Place as many of the easy details on your model as possible! Always keep in mind that your 3-view and /or photo determines what details the judge will be looking for, particularly if he/she is not familiar with the model you have chosen.

Color and markings are valued at 20 points. If you cover your model with red tissue, and the documentation shows the real aircraft was silver, you will pay the price! Use the same license numbers as shown. The EXPERIMENTAL printing on the sides of homebuilts, such as the Fike or Lacey, should be placed on the model. Rub-on letters and numbers make this job easier. Be careful, dope or thinner will melt the letters if your aren't cautious!

Workmanship is the last major item on the judges' worksheet and is worth 12 ½ points. Good covering, alignment of wings, tail and fin, plus neatness are all considered. If you think you have been judged too harshly on this item, take a look at someone who scored between 10 and 12½ points! They are gems!

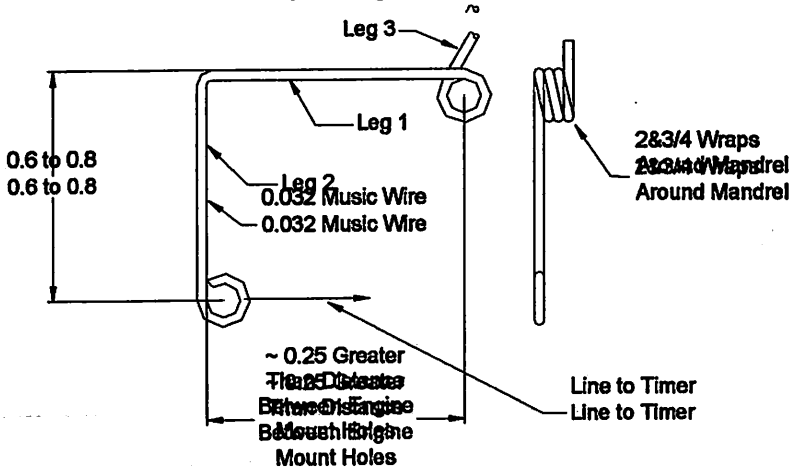
What kind of scale score should a fairly good modeler expect to get?? This answer varies with the judges and the importance of the contest. The results at the 1999 FAC Non-NATS and the 1999 FAC Outdoor Championships shows that of 55 Scale flyers, 29 scored 50 or better (53%). Gordon Roberts **won** FAC Peanut at the Outdoor Champs with a WACO SRE, scoring 49 points in Scale Score, but he did have a 15 point bonus because the SRE is a Biplane!

Space does not permit a discussion of AMA Scale rules, but will be explored in a further column. ***Competition at the past 4 or 5 AMA NATS in scale has been dismal!*** Awards to third place have sometimes gone to someone who just showed up at the contest! Hopefully, more entries will increase the prestige of Scale at the NATS. A discussion of the AMA Rubber Scale and AMA Peanut Scale rules should convince you that there is nothing mysterious or difficult in conforming to these rules. I am hoping that we shall see more CIA members participating in Scale events at the NATS!!

**A Simple Pinch-Off**
By Bob Mattes

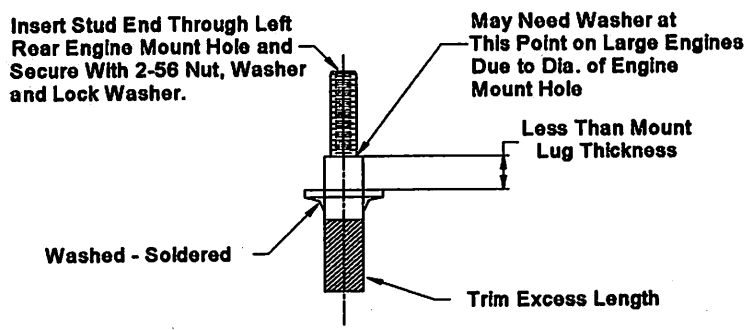
One day I was in a hurry for a simple pinch-off that was also light in weight for my ½ A. The following design resulted which, when combined with a radial mounted engine and a flood-off type timer release, is about as simple and light as you are going to get. Needed is a piece of about 0.032" music wire; a 2-56 (1/16") Solder-On Threaded Coupler; a 2-56 nut; and a #4 flat washer. The only hard part, and it's not that hard, is to wrap the wire around a 5/32" mandrel or so forming a coil spring of about 2 and ¾ turns. From the coil you need to bend leg 1 that is about ¼"longer than the distance between the engine mount holes. Leg 2, which is perpendicular to the leg 1 needs to be about 0.7" long with a loop on the end. The loop is used to attach the Spring Unit to the timer holding the spring off the fuel line during the engine run. Once the timer trips the wire is released and the fuel line is pinched between leg 1 and the engine case. This Spring Unit is shown for mounting below the left rear engine lug. If you want to mount it above the lug it would be better to build a mirror image unit. Leg 3 is made to fit your needs.

## Spring Unit




The Spring Unit is attached to the engine via the mount post, which is bolted into the aft left engine mount hole. The fuel line is routed through the front left engine mount hole. The Mount Post is made from a Great Planes threaded coupler or equivalent from about 3 other R/C parts manufactures. Cost for two of the couplers is about 80 cents (does anyone know how to get a cents symbol on your computer). If you can't part with this much cash a serviceable facsimile can be made from a small bolt.

## Mount Post




You will need to play a bit with the length of the pull back line between the spring unit and the timer. Also be sure that the fuel line is not free to slip out in front of the spring wire resulting in a "no pinch-off" over run (a common event with some of the CIA fliers last summer).

# A Simple Model Tracking Device

Mark Fineman just sent me this tip, though I must admit, when I first skimmed the message I thought it was a little pointless. Upon glancing at the pix, and rereading more carefully, it seems a simply elegant solution for a very common problem. I will definitely try it the next time out.

Thayer

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Fig. #1



Thayer:
You might find this of interest, a simple model tracking device for about 25 cents. Fig. 1 shows a small, clamp-type paper clip available (cheap!) at any office supply store. Fig. 2 shows it attached to the brim of my hat, with one wire loop left in the down position to act as a sight.

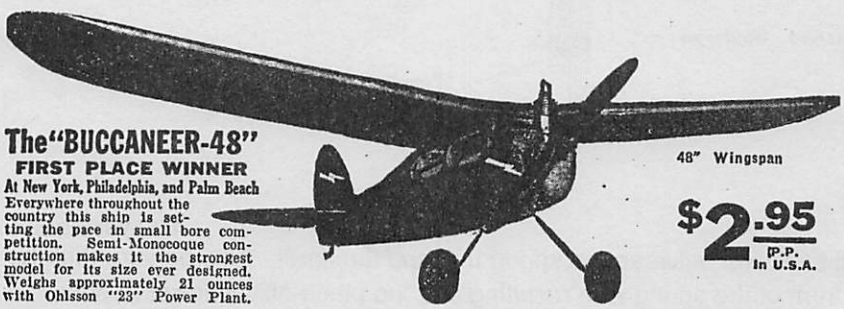
Fig. #2



When a model comes down at a distance, it is sometimes difficult to walk a straight line to the model. We all tend to take our eyes off its location and wander around in search of the downed ship. Pick any convenient landmark in the vicinity of the downed model (a prominent tree or post for example) and center it in the loop of your sight. Keep the landmark centered in your sight as you walk toward the landmark, and you will walk a perfectly straight line (Fig. 3). If the landmark is directly behind the spot where you saw the model come down, you'll walk right to it. I've tested this system many times over the summer, and it works like a charm. The dangling loop of the clip snaps flush with the brim of your hat when not in use.

Fig. #3





# 1999 Lawrenceville F.F. Contest Results.

**Mulvihill** (14 entries)

| | | |
|---|---|---|
| 1. | Joe Williams | 1080 |
| 2. | Guenther Nowak | 780 |
| 3. | Ed Sneed | 680 |
| 4. | Wally Mumper | 360 |
| 5. | Ed Hardin | 360 |

**Pre '50 Wake** (9 entries)

| | | |
|---|---|---|
| 1. | Walt Tomasch | 480 |
| 2. | Larry Willis | 360 |
| 3. | Hank Sperzel | 347 |
| 4. | Moe Whittemore | 120 |
| 5. | George Batiuk | 66 |

**O.T. Rubber Stick** (15 entries)

| | | |
|---|---|---|
| 1. | Larry Willis | 537 |
| 2. | Bob Thoren | 520 |
| 3. | Ed Sneed | 475 |
| 4. | Ed Konefes | 360 |
| 5. | Walt Tomasch | 350 |

**H.H. Catapult Glider** (19 entries)

| | | |
|---|---|---|
| 1. | Ralph Schlarb | 351 |
| 2. | Bill Schlarb | 337 |
| 3. | Jason Andrews | 225 |
| 4. | Bob Rother | 189 |
| 5. | Randall Hopkins | 80 |

**Coupe** (16 entries)

| | | |
|---|---|---|
| 1. | Paul Weeks | 351 |
| 2. | Bob Thoren | 338 |
| 3. | George Clowes | 329 |
| 4. | Eric Hepler | 324 |
| 5. | George Batiuk | 315 |

**1/2A NosGas** (16 entries)

| | | |
|---|---|---|
| 1. | Keith Fulmer | 803 |
| 2. | Bob Johnson | 360 |
| 3. | Don Boyer | 334 |
| 4. | Bob Placier | 324 |
| 5. | Bob Watson | 295 |

**1/2A Texaco** (13 entries)

| | | |
|---|---|---|
| 1. | John Shifko | 1402 |
| 2. | Don Sachtjen | 969 |
| 3. | Dale Hannum | 798 |
| 4. | William Lamberth | 741 |
| 5. | Ralph Waser | 521 |

**B Gas** (16 entries)

| | | |
|---|---|---|
| 1. | Ronnie Thompson | 1186 |
| 2. | Richard Covalt | 836 |
| 3. | Dick Hall | 450 |
| 4. | Dick Bloomquist | 355 |
| 5. | Gary Oakins | 350 |

**ABCD NosGas Comb** (13 entries)

| | | |
|---|---|---|
| 1. | Keith Fulmer | 600 |
| 2. | Dick Hall | 312 |
| 3. | Bob Placier | 248 |
| 4. | Dick Bloomquist | 312 |

No other flights.

**A Gas** (14 entries)

| | | |
|---|---|---|
| 1. | Dick Hall | 1050 |
| 2. | Charles Caton | 911 |
| 3. | Gil Morris | 613 |
| 4. | Steve Frazier | 480 |
| 5. | Gary Hinrichs | 331 |

**A1/A2** (6 entries)

| | | |
|---|---|---|
| 1. | Bill Schlarb | 540 |
| 2. | Tony Italiano | 314 |
| 3. | Warren Kurth | 43 |

No other flights.

**O.T. Gas Comb.** (5 entries)

| | | |
|---|---|---|
| 1. | Hank Sperzel | 511 |
| 2. | Don Boyer | 237 |
| 3. | Don Diggs | 120 |

No other flights.

**Moffet** (10 entries)

| | | |
|---|---|---|
| 1. | Ed Sneed | 780 |
| 2. | Ed Konefes | 360 |
| 3. | Joe Williams | 360 |
| 4. | Liza Mazzocco | 146 |
| 5. | John Mazzocco | 143 |

**1/2A Gas** (18 entries)

| | | |
|---|---|---|
| 1. | Bob Mattes | 600 |
| 2. | Gil Morris | 480 |
| 3. | Bob Johannes | 475 |
| 4. | Ronnie Thompson | 307 |
| 5. | Bob Watson | 112 |

**.020 Replica** (12 entries)

| | | |
|---|---|---|
| 1. | Gary Oakins | 249 |
| 2. | Erik Hepler | 230 |
| 3. | Tony Italiano | 207 |
| 4. | Bob Rother | 139 |
| 5. | Sid Jepson | 120 |

**P-30 Rubber** (22 entries)

| | | |
|---|---|---|
| 1. | Larry Willis | 322 |
| 2. | Roger Lane | 316 |
| 3. | Tom Hepler | 313 |
| 4. | Joe Huettl | 305 |
| 5. | Bill Jackson | 281 |

**CD Gas** (14 entries)

| | | |
|---|---|---|
| 1. | Ronnie Thompson | 750 |
| 2. | Norman Poti | 577 |
| 3. | Dick Hall | 472 |
| 4. | Dick Covalt | 240 |

No other flights.

**Wakefield** (6 entries)

| | | |
|---|---|---|
| 1. | Bob Thoren | 223 |
| 2. | Gunther Nowak | 120 |
| 3. | Mike Basta | 55 |

No other flights.



The **INFORMER**

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Vice President
**Phil Sullivan** (on deck)

Sec'y/Treasurer
**Meredith Chamberlain**

**Issue No.** 6 - 99

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