MODEL AVIATION

Official publication of the Academy of Model Aeronautics

July 2000 $3.50





















25 Years































HANGAR 9

MORE FUN,

With its upscale radio and ball bearing engine already installed, the of its dandy accessory options and it's clear that nothing can

Okay, as of right now there are no more excuses for missing out on club fun flys, not teaching your neighbor to fly or simply having a ball with some low-pressure RC action.

The Hangar 9 Xtra Easy erases all the obstacles and it wipes 'em out in style.

First off, it's a big, lightly loaded all balsa and ply, Goldberg UltraCote®-covered model that flies like a dream.

The Xtra Easy RTF
Span: 69 inches
Area: 793 sq.inches
Length: 55 inches
Weight: 6.25–7 lbs.



With its optional Drop Box accessory, the Xtra Easy is a sure-fire way to involve youngsters in R/C activities.

A HORIZON HOBBY BRAND

LESS FUSS.

new Xtra Easy™ goes together in less than an hour. Add one or more top this innovative model in the fun vs. fuss department.

What's more, it's equipped with a quality pre-installed radio that'll actually handle a second model—plus an equally pre-installed ABC, ball bearing engine with plenty of power to make things interesting. Even the tank, fuel lines and pushrods are in place.

Fact is, if you own a fast charger, your Xtra Easy will be ready to go just about the same time its batteries are juiced up.

So let's check out a few specifics.



WORLD'S SIMPLEST COMPUTER RADIO FEATURED IN HANGAR 9'S NEW XTRA EASY!

An extra channel for fun is just one feature of the popular JR 421EX that comes pre-installed in the Hangar 9 Xtra Easy.

Its computer programming allows you to electronically reverse servos, adjust throws and set neutrals for each channel in a jiffy.

There's room for a second model, too. And thanks to the computer, that model could be a delta, v-tail or even flapperon-type plane.

Add the fact that the system comes with precision BB servos, genuine Sanyo® nicads plus JR's interference-fighting compact receiver and you've got a lot of extra reasons to go with the Xtra Easy.

AN MDS 40FS PRO TO DELIVER SOME REAL PUNCH.



The minute you fire up this dual ball bearing, ABC, two-needle powerhouse, you'll know you've got a winner. With only a couple of short, rich-to-peak break-in runs, you'll be able to set a tick-over idle you won't believe. Plus your top end and transition from idle will be the envy of everyone at the field.

GREAT OPTIONAL ACCESSORIES FOR EVEN MORE FUN.

With three, fully-engineered accessories like these, you'll be able to do all the fun stuff with a minimum of hassle. All you'll need is an extra servo because the XF421EX radio's extra channel is just itching for an assignment.



With the Glider Launch Cradle, you'll be able to haul your motorless buddy's plane (up to 2-meter span) to unheard-of heights in no time. Think of it—you just might become the most popular flyer at the field!

Top, the HAN1325 Glider Launch with a Hangar 9 ARF Aspire sailplane. Center, the HAN1326 Drop Box. Bottom, the HAN1327 Photo Op camera mount.

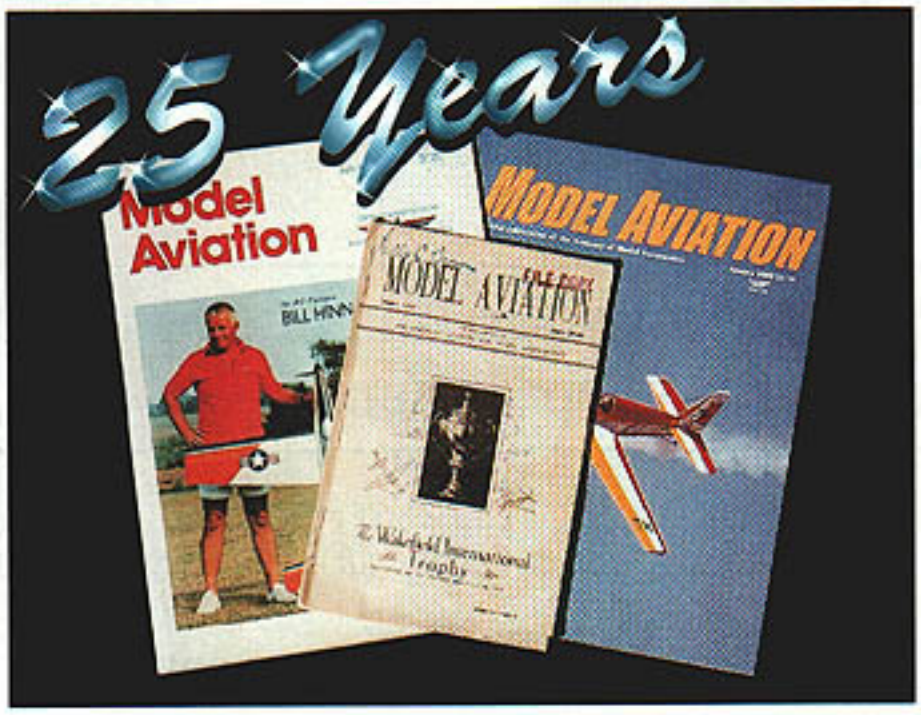
For all-around versatility, of course, the Drop Box is tops. Parachutes, candy, "bombs," you name it. The Drop Box is a must-have.

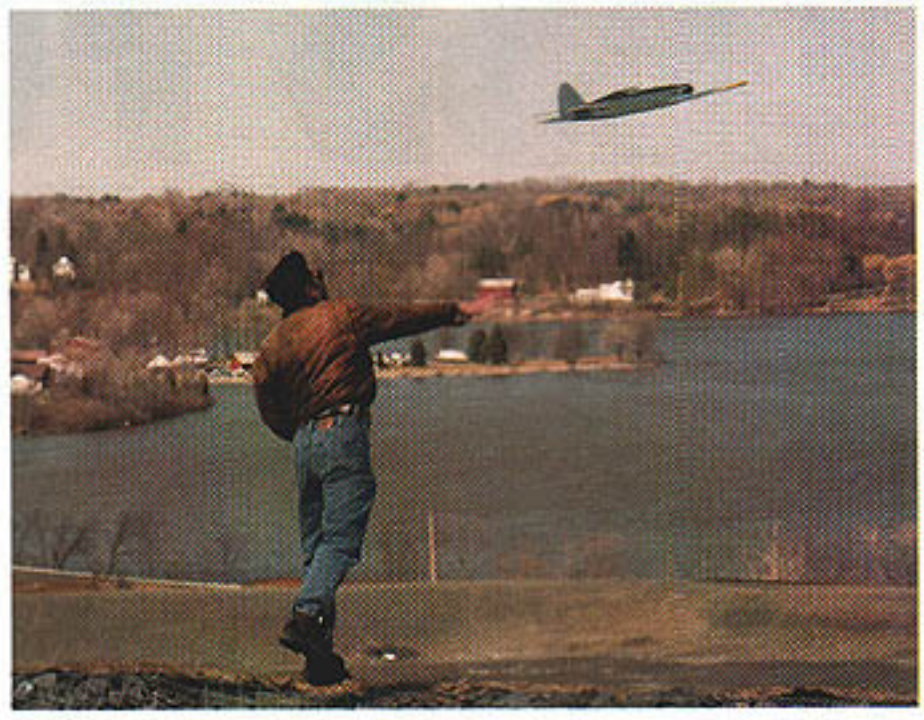
Finally, for a real novelty, carry a Kodak MAX® or Fujifilm® Quick Snap aloft in the Hangar 9 Photo Op mount for aerial photos of your flying site.

Check out the Xtra Easy and its accessories at your dealer's now.

Hangar 9 products are exclusively distributed by Horizon Hobby, Inc., 4105 Fieldstone Road, Champaign, IL 61822. horizonhobby.com For additional information or your nearest Hangar 9 retailer, call toll-free, 1-877-504-0233.

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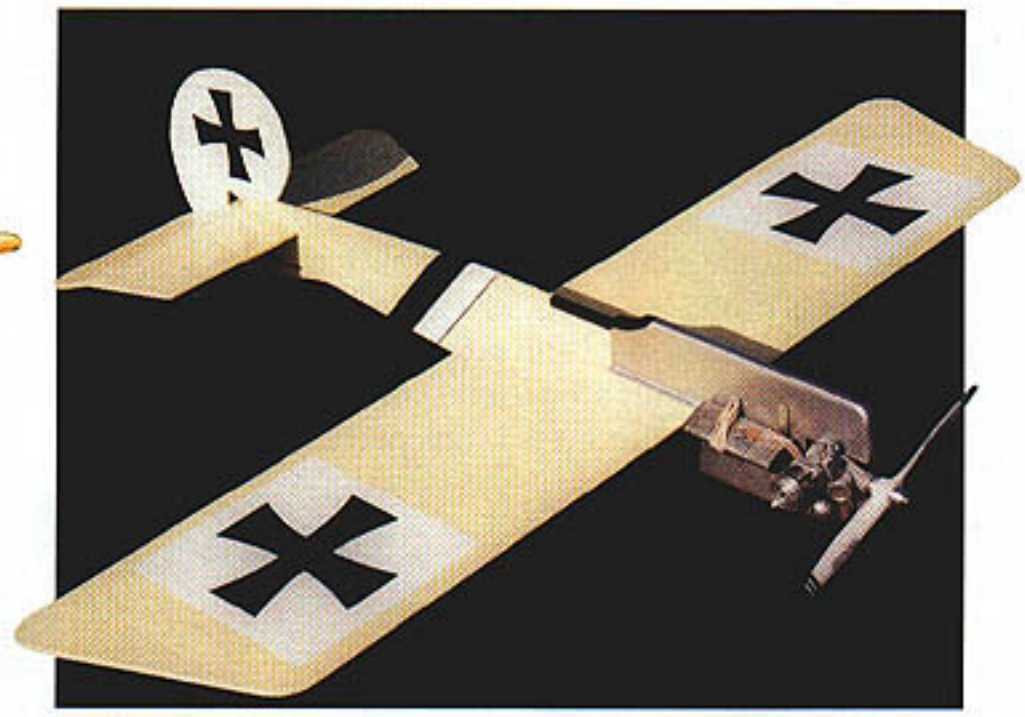
ABOUT THE COVER

The July 1975 issue marked the beginning of *Model Aviation* in its current format. After 25 years, we're still going strong. Shown are the July covers from 1975-1999. Cover design by Carla Kunz; photography by Jim Haught.

Model Aviation is an official publication of The Academy of Model Aeronautics, Inc., an associate member of the National Aeronautic Association (NAA). NAA is the official U.S. representative of the Fédération Aéronautique Internationale (FAI), the world governing body for sport aviation, and represents the U.S. at FAI meetings. NAA delegated to the AMA supervision of FAI-related aeromodeling activities such as record attempts, competition sanctions, and selection of U.S. teams for World Championships. ***Model Aviation*** (ISSN 0744-5059, USPS 087-930 Publications Agreement No. 1522051) is owned exclusively by The Academy of Model Aeronautics, Inc., a nonprofit organization, and published monthly at 5151 East Memorial Drive, Muncie IN 47302. Periodical rate postage paid at Muncie IN and at additional mailing offices.

July 2000
Volume 26 Number 7
AMA Since 1936





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Eindecker 44
All-balsa ½A CL that's just for fun
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Introducing the biggest, best MDS yet. And at less than two bills, it's a steal.

Here's an engine value that's so great, you've almost got to consider campaigning a large model.

Kidding aside, the MDS 148 is a masterpiece of engineering and precision workmanship, with a price tag that's too good to pass up.

Moreover, it handles like a dream and delivers gobs of power, while exhibiting remarkable tolerance to various prop sizes, fuels, and glowplugs. Plus, both conventional and positionable remote needle valves are included, so mounting options are virtually unlimited.

Our test staff, who are merciless, loved the 148's easy starting, reliable idle, and crisp transition. On the other hand, they seemed even more impressed by the 148's ability to hover a 14 pound Hangar 9 Ultra Stick at half throttle.

And who could blame you if you agreed.

See the handsome, value-packed MDS 148 at your dealer now. And if it's difficult to leave his shop without one, don't say we didn't warn you.



$189.95 AT PARTICIPATING RETAILERS

MDS 148 FS Pro

Displacement: 1.48 cu.in.
Weight: 30 oz.
Prop sizes: 15x8–16x10–18x8
Piston: Ringed
Sleeve: True-chromed
Crankshaft Diameter: 5/16(.310")

Accepts aftermarket mufflers which fit the Webra, Moki, Thundertiger and ASP 120s.

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MDS™

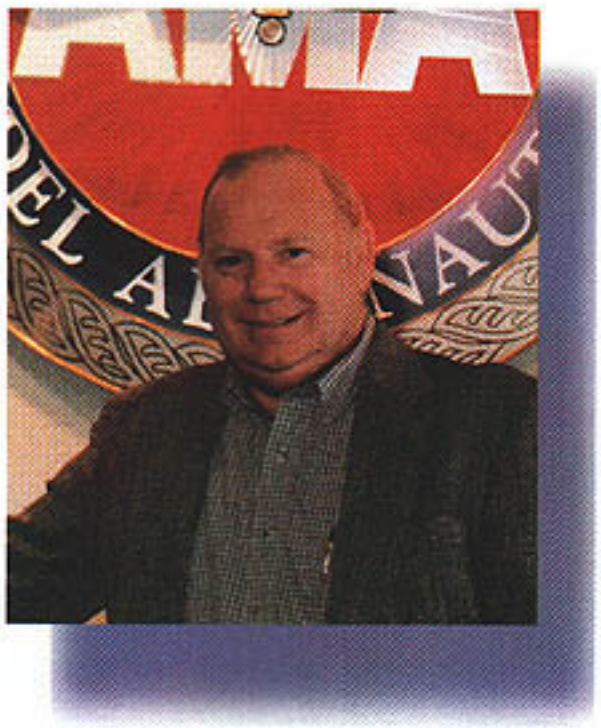
PERFORMANCE

MDS Engines are distributed exclusively by Horizon Hobby, Inc. 4105 Fieldstone Rd. Champaign, IL 61822 www.horizonhobby.com For more information or your nearest MDS retailer, call toll-free 877-504-0233.

President's Perspective

Dave Brown AMA president

... there are 16 purposes listed in the AMA Bylaws ...



THE WEAK SIGNALS Show in Toledo OH is over and the Sun 'n Fun event is upon us, so it must be spring. Why is it snowing outside? Oh well, that's life in the Midwest.

The Internet is a wonderful tool for gauging the moods and desires of the membership on a nearly immediate basis.

The recent scuttlebutt on the Internet shows that many members do not understand the need for AMA to become involved in income-producing activities. This is understandable, as most members see AMA strictly as an organization providing services to its members–principally insurance coverage.

In reality, AMA is much more than that.

I am sure the vast majority of members would be surprised to learn that there are 16 purposes listed in the AMA Bylaws and the words *member* and *insurance* are not in there once!

The Bylaws outline the *public* purposes of AMA, and it is the *public* purposes upon which the nonprofit status of the organization exists. Fulfilling those functions takes effort, focus, and funding.

Typically, the members want to see their dues spent on programs that benefit them directly, with little thought to the *other* side of AMA. If AMA is to give its members the most services for their membership dollars, it must look toward sources of funding beyond dues revenue.

To give you an idea of the magnitude of the situation, it's commonly held that a membership organization, such as AMA, should depend on dues for no more than 60% of its income, with a 50-50 split between dues income and non-dues income being the ideal.

Historically, AMA has been dependent on dues for roughly 85% of its income.

At a strategic-planning session two years ago, we set a five-year goal of lowering this to 75%. This is still a long way from the ideal, but it is also quite a challenge. To meet that goal will require an increase of approximately $750,000 in non-dues income.

What are the alternatives? There really aren't any worthy of serious discussion. Any option I am aware of would involve either less service or increased dues for the members.

Please understand that I am *not* priming anyone for a dues increase in the near future; I am saying that *in the long run*, dues will have to increase if we are unable to generate other sources of income.

If we do not continue to increase the amount of resources dedicated to the *public* purposes, it will threaten our nonprofit status, which could have a "double whammy" effect: we would have to pay taxes on our income, and we would not be eligible for tax-deductible donations.

If we *do* continue to increase the amount of resources dedicated to these *public* purposes, without increasing income it would result in less money available for direct member services.

Please understand that most of the *public* purposes *do* benefit the members, but those benefits are usually indirect, and not restricted to members.

Frequency issues are an example. AMA fights for frequency availability or protection, yet those frequencies would be available to all people, whether they are members or not.

The bottom line is that AMA's affiliation with various service providers who are willing to pay AMA for the right to promote their services to our members *does* benefit the members. AMA becoming involved in some income-producing ventures will also benefit the members.

In both instances, every dollar of income generated by those activities is a dollar that will not have to be raised through dues. Those programs are the best way to keep your dues down, and that is a priority of the organization. MA

'Til next month.

Dave

Dave Brown
AMA president
dbrown@dbproducts.com



On the Fly

Late-breaking news from Headquarters

AMA Grand Event/Homecoming

The Academy of Model Aeronautics will host the fourth-annual Grand Event June 10-11 at the International Aeromodeling Center, Muncie IN. The event will run simultaneously with AMA Homecoming, as it has for the past three years.

Grand Event/Homecoming hours of operation will be 9 a.m. to 5 p.m. Saturday, and 10 a.m. to 3 p.m. on Sunday.

Developed to introduce people of all ages to the excitement, benefits, and value of hobby modeling, the Grand Event is free and open to the public.

Saturday's events will include make/fly/take model airplanes, kites, and rockets, and Radio Control car activity. On Sunday, organized demonstrations, seminars, and related activities will be offered.

Many representatives and exhibits from the model-hobby industry will be in attendance, and a food court will be located close to most major activities.

AMA members are welcome to participate in Homecoming *and* Grand Event festivities.

For members who plan to attend, the following frequency channels will be in use: 20, 22, 26, 38, 39, 52, and 54. These channels will be used for buddy-box flying and, while not exclusive, Grand Event volunteers request that other fliers try to use other frequencies when possible.

An AMA membership meeting will be held Saturday afternoon, followed by a member-appreciation dinner. Grand Event sponsors, exhibitors, and volunteers are also invited.

For more information, contact Mary Lou Vojslavek at (765) 287-1256, ext. 201, or via E-mail: mvojslav@modelaircraft.org. MA

Welcome!

AMA welcomes a new Life member, who signed up at the 2000 Toledo Weak Signals trade show during the April 7-9 weekend; Robert Svare of Isanti MN.

Robert joins the members who have upgraded to a Life membership since January 1, 2000: Don D. Domon of West Valley NY; David Latsha of Lemoyne PA; and Rick Lenz of Wild Rose WI.

For more information about becoming a Life member, contact Jeannie Houser in the Membership Department at (800) 435-9262. MA

—Membership Department

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AMA SINCE 1936

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Executive Vice President **Doug Holland**

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District V	Jim McNeill	**District XI**	Bruce Nelson

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Letters to the Editor

5151 E. Memorial Dr., Muncie IN 47302

Addenda

The Convention 2000 report in the May issue did not list the address for Poly Fiber UV Smooth Prime and Top Gloss, shown in a photo on page 16. Interested parties should contact F&M Enterprises, 22522 Auburn Dale Dr., El Toro CA 92630; Tel./Fax: (949) 583-1455.

I enjoyed very much the article by Bob Wilder about "Indoor Electric Development" in the April issue. It was nice to see that Bob noted in his Airplane R&D box that he had gotten his first radio "from John Worth at Cloud Nine." I have been working with Bob and many of his local friends on Indoor RC projects for several years. In the group picture on page 35 are several of my regular customers.

Aside from all that, Cloud 9 RC has been supplying micro RC components for five years, so I was surprised to see that we were not listed among the Sources in connection with Bob's article. ...

Bob's article is a real contribution concerning what has been and still is happening in the world of Indoor RC.

John Worth
Cloud 9 Micro RC
4326 Andes Dr.
Fairfax VA 22030
jwc9@mindspring.com

German Museum



A new museum for model flying in Germany is growing. It is located in the historic Wasserkuppe, a hill region in the middle of Germany.

There you will find the Deutsches Segelflugmuseum, which was founded about 12 years ago. Since September 1999, the museum has a new section for model flying.

The recommended way is Autobahn to Fulda South, from there about 20 miles to the Wasserkuppe via Gersfeld, roads number 279 and 284. The museum is open every day from 9 a.m. to 5 p.m. in summer; October to March, 10 a.m. to 4:30 p.m.

Holger Menrad
Haldenslaber Str. 5
D-38442 Wolfsburg
Germany

Health Concerns

I recently began constructing a new Piper J-3 Cub and have been affected by some of the fumes emitting from the glue. I will not mention the company, but it was just a standard CyA (cyanoacrylate) glue that you can buy in any hobby shop.

At first, I could not determine what it was that was making me sick, but I eventually discovered that it was the fumes from the glue. I also read some other people's comments on the Internet—they all had the same symptoms that I was having while working on the airplane.

After eight prescriptions and one confused doctor, we cured my illness after a six-week experience with the following symptoms: major sinus problems, severe coughing (all night sometimes), and a flowing runny nose.

I have since switched to CyA "odorless" glue, and have not experienced any of the symptoms. Until I discovered that the odorless glue does not give me any allergic reactions, I had almost given up modeling.

William T. Federspiel
Lexington, Kentucky

Boss Kudos

Big kudos to Bill Boss, *MA*'s longtime and most-capable Control Line Scale columnist, for dedicating the *whole page* to beginner activities. Class act!

I realize that others have also contributed to this issue. It makes a fellah (spelling correct) wonder: What if all columnists dedicated a major portion (or all, for that matter!) of one column each year to basic beginner issues?

Lead on, Bill Boss!

P.S. I don't fly Scale.

Doug Dahlke
Oshkosh, Wisconsin

Editor's note: We did beginner-theme issues a few times in the mid-1990s, and plan to do so again in the June 2001 issue.

Price Correction

The recent insert on page 104 of the February 2000 issue of *Model Aviation* concerning an offer to provide an information packet for products of Scale Skins® Model Company is in error. The "two bucks for postage" offer referred to by the author, Jeff Troy, was based on very old information.

This product catalog is offered for $5 postpaid, with an additional offer to

Continued on page 182

Desert Aircraft

The Finest Giant Scale Motors, Kits and Accessories From Around the World!

Introducing
The new line of
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Now Available
DA-150 (150 cc twin)

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DA Desert Aircraft



Hitch Your Wagon ...

Glenn How (24 Roadrunner Ln., Alamogordo NM 88310) sent this photo "to show what the Stealth City Flyers use for what we call *flightus interruptus* (crashes).

"It works well and gives the children something to play with and keep them occupied during our time at the field. It is equipped with an antenna with flag, fire extinguisher, light, and three-position siren—all electric."

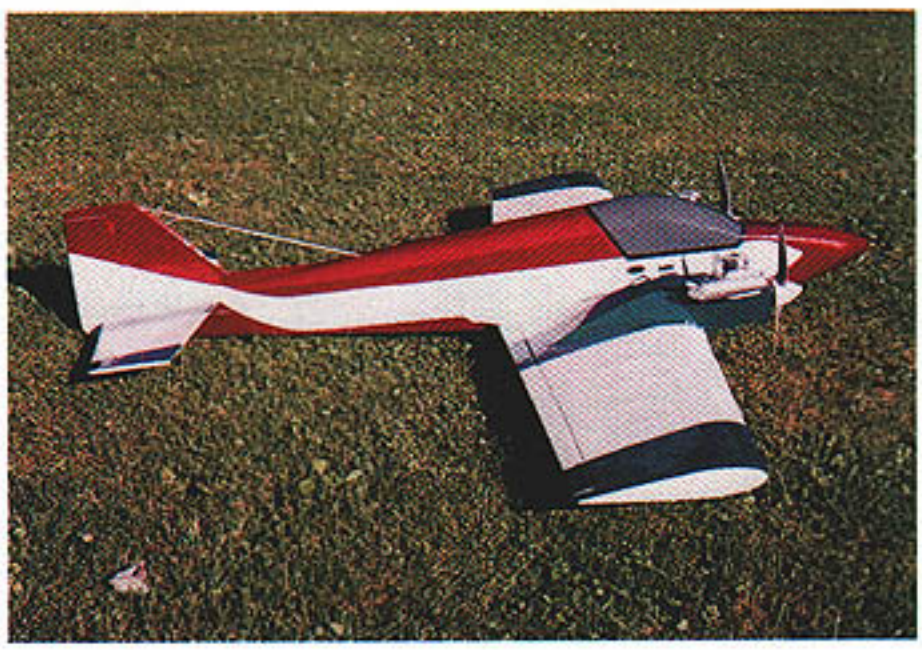


"A Pussycat to Fly"

David C. Mitchell Jr. (129 Leslie Ave., Baltimore MD 21236) built this Eindecker from a Balsa USA kit. Power is an O.S. 91 four-stroke; span is 80 inches. The model weighs 11 pounds. Covering is Solartex and 21st Century.

"The airplane is a pussycat to fly," wrote David, "and I have received a lot of nice comments on it from fellow fliers."

Grandson David is shown with the model, which won first place in a club building contest.



Kit Bashing

"This is my latest effort at 'kit bashing,'" wrote Dennis Ness (156 Creek Rd., Butler PA 16002). "After some idle talk at the airfield about creating a twin-engine UltraSport, I decided to give it a try."

The model uses two O.S. 40FPs for power, turning 10 x 6 props. Radio is Futaba. Weight is 6½ pounds—one pound heavier than the author's single-engine UltraSport 40. It had approximately 25 flights on it at the time of the photo.

"It flies as well as the single-engine version, with no bad flight tendencies," he reported.



Mosquito

Paul Harding (14403 N. Dakota St., Spokane WA 99208) sent this photo of his de Havilland Mosquito ("for weather reconnaisance and photographic coverage—107 supplied to USAF," says Paul).

The model has an 82-inch wingspan and weighs 18 pounds. Power is Supertigre .51s. Other features include homemade retracts, bomb drop, and scale cockpit. the model is covered with 21st Century Fabric and uses a seven-channel Futaba radio.



Cross Bow

Matt Ford (2 Third St., Glenwood Landing NY 11547) built this model from a Leading Edge Model Aircraft kit.

"When I first saw this airplane, I knew a military-type covering would fit well," wrote Matt.

Covering is MonoKote®; power plant is an O.S. .46FX. "The pilot and underwing missiles are from old models I had laying around."

"The airplane builds out very strong and is quite stable in the air. A low pass down the runway to a gentle climbout is a real crowd-pleaser."



Gee Bee Z

"This was my first scratch-build project," says Ken Siemers (735 Grape Ave., Sunnyvale CA 94087). The model took a little more than three months to complete, based on plans by Adrian Page.

"I like to be creative," wrote Ken, "so the airplane has a slight twist: it's the Gee Bee Z plans with the R2 color scheme."



Phaeton IIs

William M. Wittey (192 Warner Ln., Harmony PA 16037) says that this photo shows three of the five Balsa USA Phaeton II biplanes in his MARS club.

"The yellow one belongs to Bill Hodson; the white one with red stars is mine; and the white one with red-and-blue stripes belongs to Howard Nesbit."

"Thanks for 'Focal Point,'" he wrote. "I like to see the models that others have built."



Astro Hogs

Louis Goldberg (16905 Old Colony Way, Rockville MD 20853) built these "highly modified" Astro Hogs.

"The tail feathers and fuselage length are modified," he explained. "They have very little dihedral, and I have a new wing I like very much with no dihedral."

The Hogs are powered by K&B .61s and weigh 7½ pounds each.

"When I was a boy, Dr. Walter A. Good was my neighbor, and *Air Trails* and the Guff [Good model] were the cat's meow."



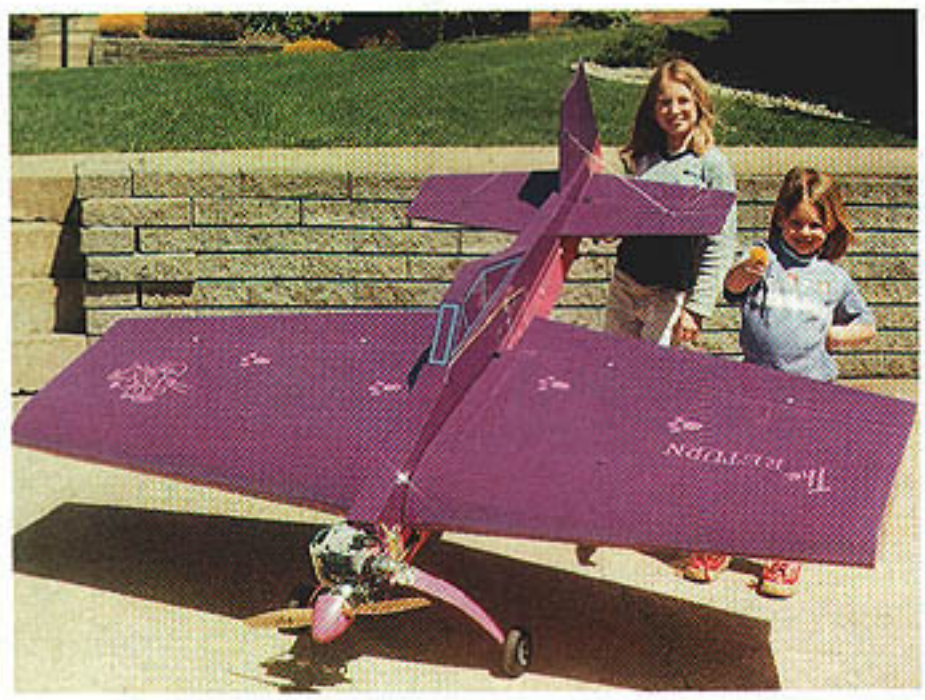
Phantom

"I have flown RC models for a number of years, both power and gliders, but I still like to build [Free Flight] stick-and tissue," wrote Ken Rasmussen (1837 S. Redwood St., Visalia CA 93277).

The Phantom was built from an Easy Built Models kit. Span is 40 inches; weight is approximately four ounces. Covering is MonoKote® on the fuselage, with tissue covering on the wing and stabilizer.

"I am experimenting with different combinations of props and rubber motors."

"P.S. I am delighted with 'Focal Point.'"



Purple Panther

That's what Daniel Stacko (56 Windcrest Dr., Cecil PA 15321) calls his latest project, seen here with daughters Lauren and Michelle.

The original design took approximately six months to build. Power is a G-62, with Futaba transmitter and Hitec receiver. Weight is 16½ pounds and span is 84 inches.

"It was built to perform unlimited aerobatics, and does not disappoint. My favorite maneuvers are upright and inverted flat spins and waterfalls."



Extra 300L

"The model was built from an Ohio R/C kit, and is a 32% copy of an Extra 300L," wrote Marty Meyer (160 Locust Ave., New Rochelle NY 10805).

Wingspan is 103 inches; power is a 3W-100 with a Don Harris smoke system. A 26 x 12 Menz prop is used. Radio is Futaba. Covering is MonoKote®, except for cowl and hatch, which are painted with automotive finish.

Mr. Meyer has been in modeling for 65 years and has flown Radio Control models for the past 43 years.



Cloud Niner

Stan Duszczak (32 Heritage Ct., Cheektowaga NY 14225) describes these Bill Winter-designed Cloud Niners as having "split flaps for slowdown from the sky landings, no stalls, fun, lazy, slow or fast flying.

At left is Jim Smith, "age 75, and loves to do only right turns." At right is Stan, "who loves to fly slow, lazy circles."

Jim's model has an O.S. 70 four-stroke for power; Stan's model has a SuperTigre .60. Both men are members of the R/C Aircrafters of Hamburg NY.



Two Weeks to Build

Benjamin Lawless (10005 Indian Queen Point Rd., Fort Washington MD 20744) built this Comet Fokker D.VII "dime model" that is held by Marilyn Graskowiak.

"Fifty years ago, I built these models in two days, but for some reason they take two weeks to build now," he wrote. "Clumsier fingers, I guess."

The lozenge pattern was scanned and printed directly on tissue with a Hewlett-Packard Deskjet 722C color printer. A light coat of Krylon® clear fixatve was used to "set" the colors.



"A Super Airplane to Fly"

Robert E. Lee III (805 Cloisters Dr., Florence SC 29505) built his Great Planes Piper J-3 to replicate his brother-in-law's full-scale 1946 aircraft "as close to scale as possible, including his tail number."

The model took five months to build and is powered by an O.S. .60FP. Radio is Futaba and covering is 21st Century. The pilot's head moves with the rudder and a parachute drops from beneath the right wing.



Patriot

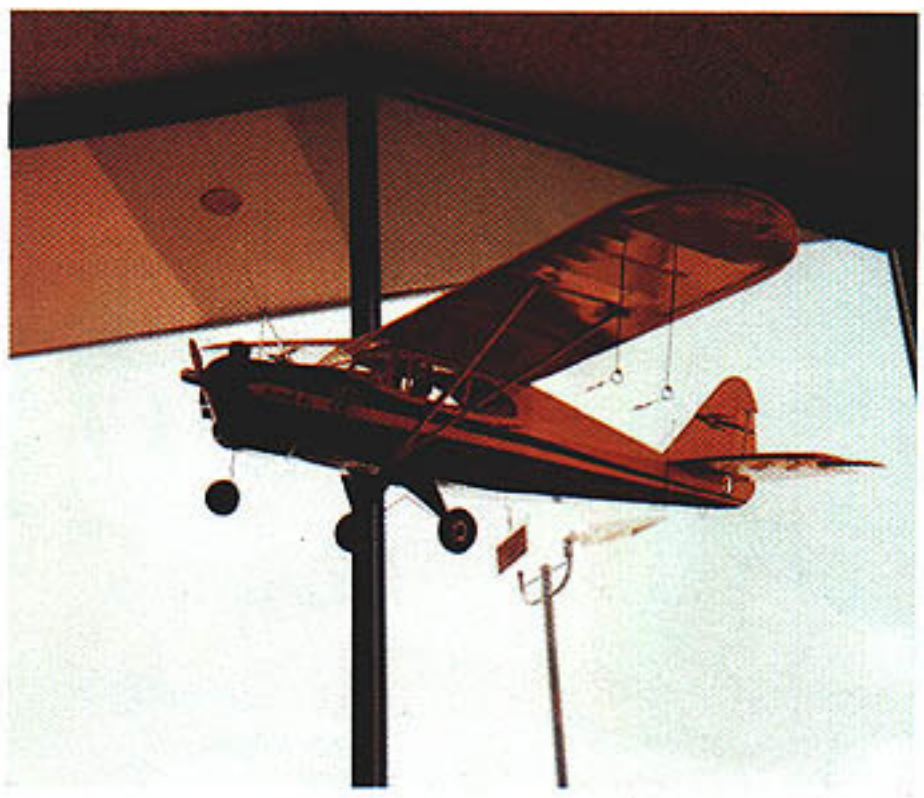
Jeff Costa (1409 Tuliptree Rd., Santa Rosa CA 95403) built this Great Planes Patriot. Power is an O.S. .46FX with Performance Specialties Ultra Thrust muffler.

Covering is Goldberg UltraCote® and the model has Hobbico retracts.

"Top speed [is] in excess of 100 mph," wrote Jeff. "Not for the meek of heart."

Proud of your latest building/flying effort? Share it with *MA*'s readers! Send us a glossy color print (no digital photos or photocopies, please), with appropriate description, and we'll run the best submissions as time and space permit.

Please include your full address (including E-mail, if available) so that interested parties may contact you directly. Send to: *Model Aviation*, 5151 E. Memorial Dr., Muncie IN 47302; Attn: Focal Point.

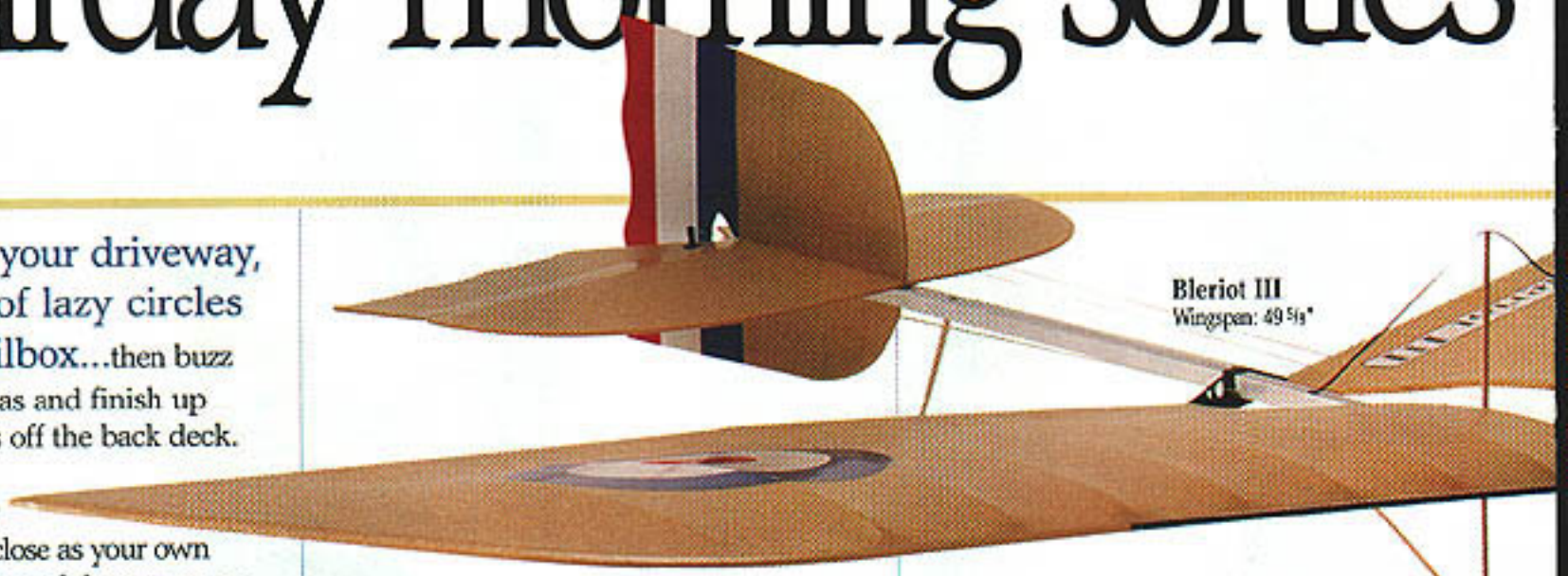


Tri-Pacer

Robert E. Tendick (827 N. Diamond, Jacksonville IL 62650) and his son hung his Fox-powered Sterling Tri-Pacer Control Line model at his local airport.

"I was given the honor by the local airport manager. To me, this is the best you can ask for—it's seen by the flying people of this USA," he wrote.

Saturday morning sorties



Take off from your driveway, twist a couple of lazy circles around the mailbox...then buzz Mrs. Brown's begonias and finish up shooting touch-n-goes off the back deck. All before breakfast.

With an Ikarus slow flyer, R/C flying is as close as your own front yard, the park around the corner, or even indoors down at the VFW hall.

Ikarus ultra-light micro-electric airplanes take off with as little as 5 feet of roll-out, have a cruising speed of about 8 mph., and have terrific in-flight maneuverability. You can easily do 12ft. diameter turns without stalling. These little gems do best when it's nearly dead calm– that's why indoor flight is ideal– but most early mornings or late evenings are just fine.

The Ikarus squadron consists of four models: Bleriot III, Grade Eindecker, Demoiselle and Rumpler Taube. All are constructed of lightweight Novalight foam and aluminum or balsa, and take about 5 hours to build. To get yours flying, you'll need our Power Package with motor, speed control and battery pack. Plus, you'll need at least a 3-channel radio with a micro receiver and servos. If you've already got the radio, JR's AirPac Micro, with two 241 servos and a 610M receiver, is just the ticket.

So get yourself an Ikarus, and fly inside, outside and all around the block.

Save when you buy our most popular slow flyer, the Bleriot III, combo'd with the Power Package.

Ikarus Slow Flyers		List	Our Price
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IKA160650	Grade Eindecker	86.49	58.99
IKA160720	Demoiselle	79.99	58.99
IKA160700	Rumpler Taube	99.99	69.99
IKA100	Power Package (Motor, Speed Control, 270mAh Battery & Battery Charger Lead)	122.80	91.89









Our Quarterly is packed with great products and informative articles. If you're not getting it in your mailbox, ask for a copy at your local hobby shop, or call us to get on our mailing list today.

JR's AirPac Micro packs mega performance into the tiniest, lightest package– under 1oz. for servos & receiver combined. Ideal for slow flyers, and lots of other "micro" and light aircraft.

JR AirPac Micro
JRPF640 List 139.95
Our Price 99.95



JR AirPac Micro
Two 241 Servos and an R610M Receiver

All in the family.

If you think the new J-line Quattro radio looks familiar, you're right. That's because it was designed and engineered by JR. This great new 4-channel FM radio features proven JR electronics and comes with servo reversing, trainer function, four JR 507 servos, an R600 receiver, rechargeable NiCad batteries, 1-year warranty and more. But the feature that sets the Quattro apart most is its price tag. At $149.95 you'll get genuine JR quality at a very affordable price. So if you're looking for a great flying 4-channel radio on a budget, remember that some things, like good looks, intelligence and a friendly personality, just run in the family.



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on Sycamore Street.





June 1936—Vol. I No. 1

MA at 25

■ Jim Haught

Editor's note: This issue marks the 25th anniversary of Model Aviation *in its current format.* MA *had existed in many forms prior to that time, but the change to a stand-alone magazine was perhaps the most significant since its beginning in 1936.*

Former MA *editor and publisher Carl Wheeley played a leading role in the magazine's development, and he recalls how this version of* Model Aviation *was born:*

What propelled AMA into the full-fledged magazine business with *Model Aviation* was the bankruptcy of the publisher of *American Aircraft Modeler* (*AAM*) a short while before.

For a number of years, AMA had been purchasing copies of *AAM* for members who had paid extra to obtain a subscription (which, incidentally, contained an AMA section named "Model Aviation"). AMA paid for copies of *AAM* for members as they were printed, so there was money from unfulfilled *AAM* subscriptions that AMA could apply to its own magazine.

AMA officers, the Executive Council, already had a meeting in the Washington DC area scheduled about this time. They voted for AMA to commence *Model Aviation* to fill the void.

At this meeting it was announced that I would be the Publisher; Bill Winter would be the Editor; and Frank Ehling would be the Advertising Manager. Ehling and I were already AMA employees, and Winter had recently become free of other work responsibilities. Heather Huntington and I had previously made up the AMA Publications Department; she became the new magazine's Art Director.

These four, plus a woman who provided secretarial and proofreading help, put out all of the early issues.

On the first working day following the decision to proceed with *Model Aviation*, the magazine principals met in Executive Director John Worth's office, where I laid out my concept of what the magazine should be. I thought there should be columnists reporting regularly on all modeling phases; that there should be a major feature each month for RC, CL, and FF; and between these things, how-to articles, etc.

I was given the responsibility of recruiting the column writers, while Winter went to work on rounding up construction and other articles. The first issue came out two months later, and *Model Aviation* has appeared monthly ever since—to this 25th year of publication in full magazine format.



1940

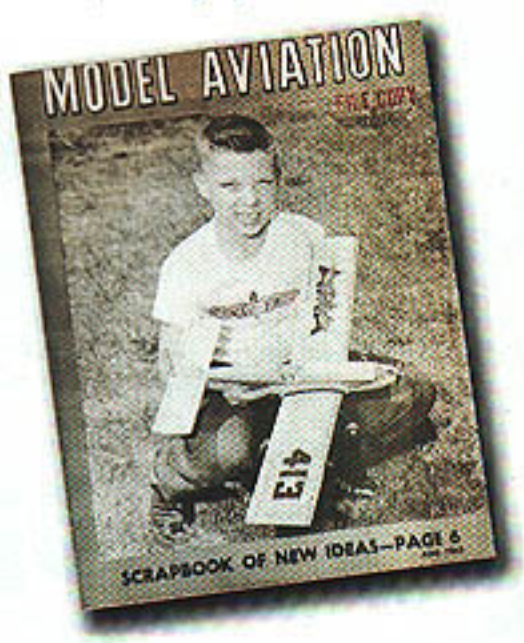


1952



1958-61

Photos by the author Graphic Design by Carla Kunz



1962



June 1966—30 years

25

How difficult was it to do a "cold" start-up?

The initial magazine staff was comprised of capable, competent people. None of us thought our venture would be anything other than a success.

For several years, AMA had been involved in producing magazine-size program books for competitions and various other publications, including the monthly section in *American Aircraft Modeler*. Bill Winter had been involved with a number of other magazines; he knew his business. Executive Director John Worth was supportive of our efforts in many ways.

How tough was it to get MA *done with such a small staff?*

It wasn't especially tough, with 80-page issues as at the beginning, or even beyond that to 88 pages. Eight more pages to 96, though, did require adding to the staff.

After you got started, what was the reaction of members/readers? The Executive Council? The industry?

Reaction of members/readers was mixed—the most-mentioned comment being that there wasn't enough material of the member/reader's interest. When it was seen that this comment came more or less equally from RCers, FFers, and CLers, we thought our balance was reasonably correct.

Early on the elective officers were mostly supportive of the magazine; later on, one or two officers had misgivings about some aspect or another.

There didn't seem to be much industry objection to the AMA magazine—unless you consider that failing to advertise was voicing an objection. To this subject, one also has to consider the fact that sale of advertising wasn't pushed very hard for the first year or so.

The biggest objection to the AMA magazine came from other magazines in the field.

That initial issue of the magazine *MA* contained a note "From the Publisher" with the headline, "We've Come A Long Way." The journey has indeed been long, and it is ongoing. However, Carl Wheeley's closing from 25 years ago is true today:

"Whatever happens, *Model Aviation* is born again and in your hands. We hope you're happy with it."

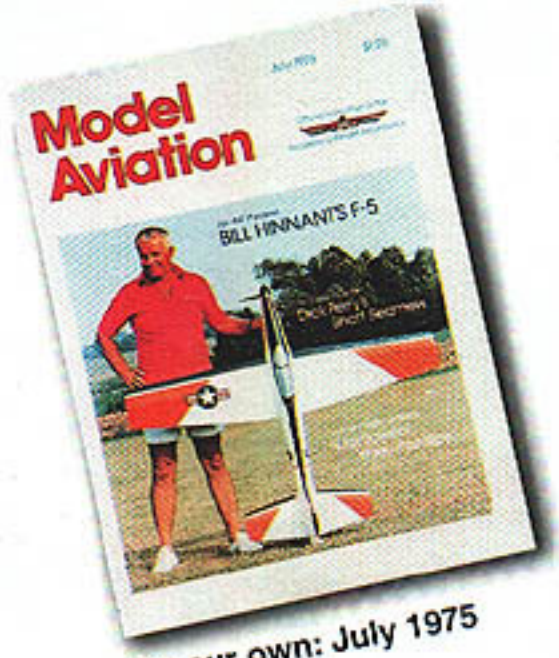
We still hope so. *MA*



1992



Publisher's note, July 1975



On our own: July 1975



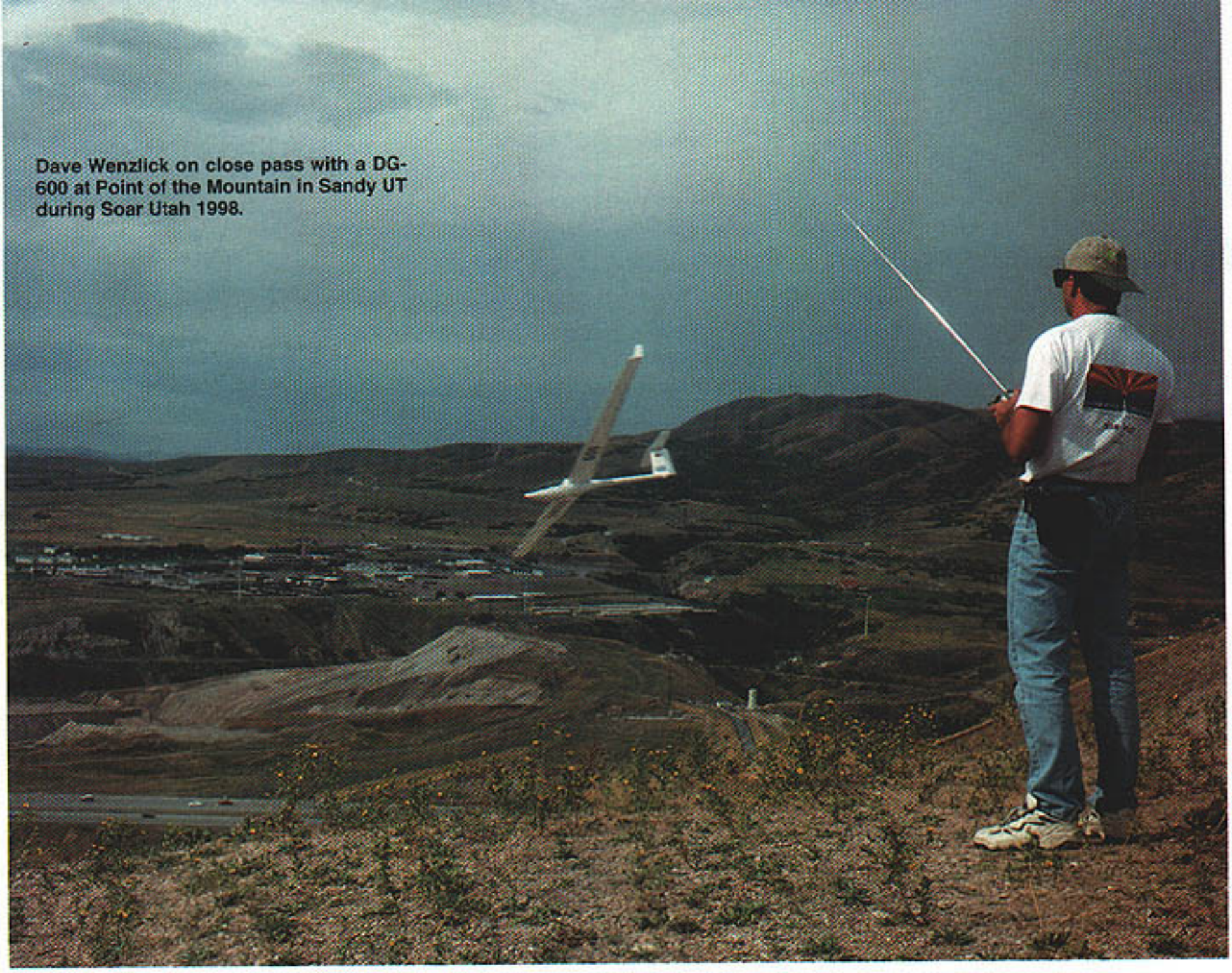
1967



1974



1975—1936—2000



Dave Wenzlick on close pass with a DG-600 at Point of the Mountain in Sandy UT during Soar Utah 1998.

SELECTING Slope Sailplanes

■ **Dave Garwood**

"When it's too windy to fly power or thermal, go to the slope."

—Dave Thornburg

WHICH SLOPE sailplane should I get?

It depends.

Choosing the right airplane depends on pilot skill and temperament, building skill and resourcefulness, and lift available at your local flying sites.

In light lift, we fly Thermal Duration-type sailplanes on the slope. As lift increases, smaller and faster models make an appearance. When the wind howls, the heavy racers come out and rule the air.

Slope lift is incredibly versatile. It supports the lightest floaters up through the heaviest lead sleds that have no chance of thermaling. Slope lift easily handles sailplanes too large to safely launch from a bungee or a winch. The abundant lift available on a good day makes a marginal design work, or breathes new life into a favorite old airplane that has gained weight from many repairs.

Remember, "It doesn't have to *fly* to work on the slope; it just has to *turn*."

Slope airplanes are usually built from kits, but many are available in stages of construction up to and including ARF (Almost Ready to Fly). Slope is a wonderful venue for designers, and you may be one of those creative types who works from a blank sheet of paper rather than a kit or published design.

My own experience is mainly building from kits; only one prebuilt airplane, and no original designs. I converted the A-4 Skyhawk in the logo for this series from a Yellow Aircraft ducted-fan kit.

The majority of slope sailplanes fall into five categories, each suited to different pilots and to different flying days. The examples I give in each group are representative, not definitive; they are airplanes that I have owned and flown or have seen flown.





Jim Davis prepares to launch Great Planes Spirit; Joe Chovan flies Dave's Aircraft Works Schweizer 1-26.

The categories given here overlap; one design may fit in two or more categories. In each category, construction materials and techniques may include traditional balsa and plywood throughout, with film covering on the flying surfaces; foam-core wings sheeted with balsa, plywood, or fiberglass, along with a molded fiberglass fuselage; or the most recent entry into slope airplane construction methods, the tough and resilient expanded polypropylene (EPP) foam, which has given us bounceable sailplanes.

The major types of sailplanes seen on the slope:

• *Hand-Launch Glider (HLG)*: Many pilots' first try at slope flying is with a trusty HLG. These 60-inch-span airplanes are a suitable size for starting out, are large enough to see well, and are small enough to maneuver nimbly on small slopes. They may have wing loadings from four to six ounces per square foot, and will generally fly well under light-lift conditions.

You are likely familiar with the flight characteristics of your HLG, so the first flight is not much different from flatland hand-launch flying, but you toss the model out over the slope and fly where you expect lift to be. If lift is present, you fly in it; if not, you circle back to your feet. A HLG makes a good airplane for a "wind dummy"—the guy who launches first to see if there's enough lift to fly.

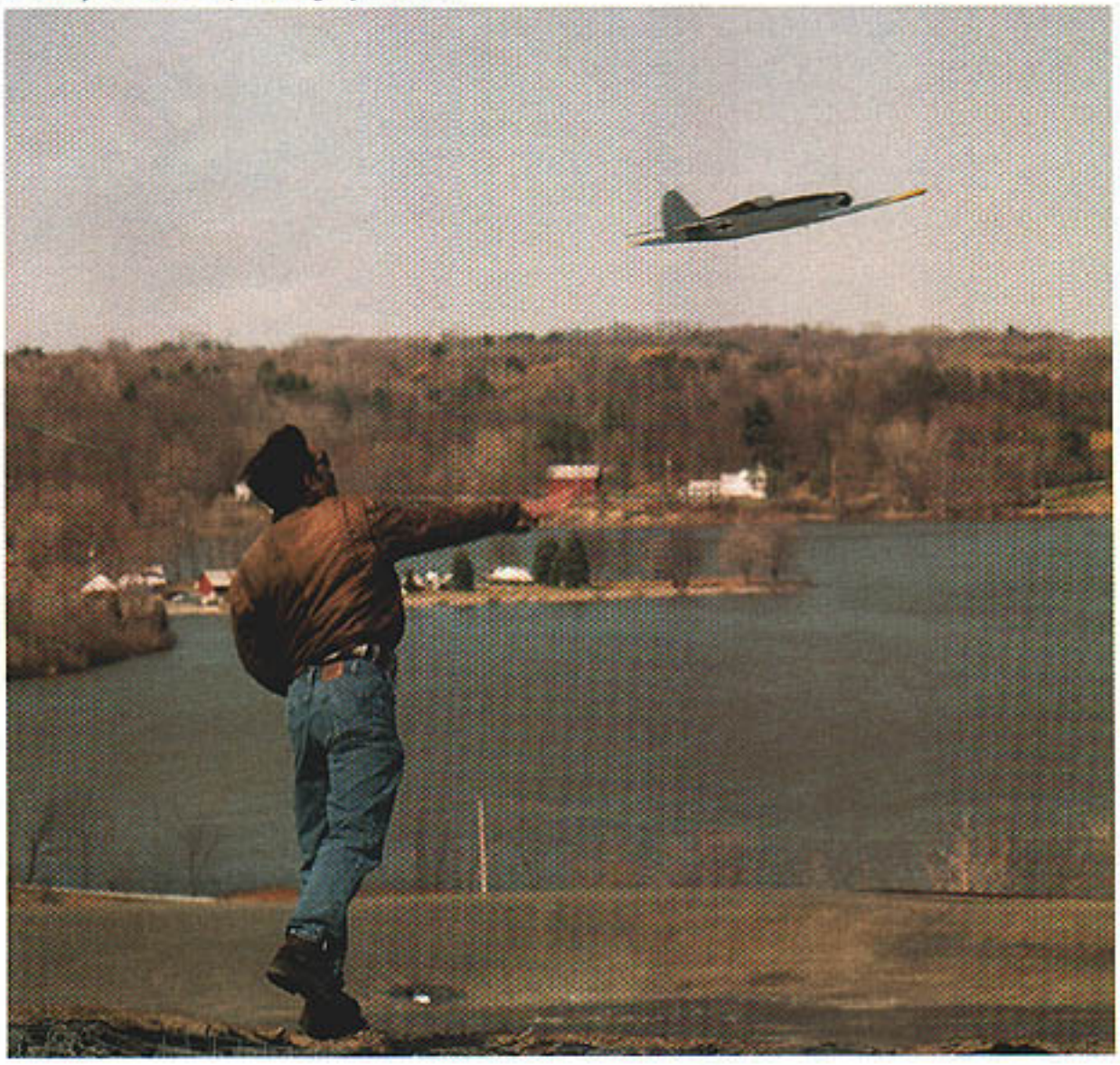
Light HLGs like the DJ Aerotech Monarch, the Chip Vignolini Ariel, and the CR High Performance Products Climmax (HL version) will fly on a breath of lift, in 3-5 mph wind. Under these conditions you'll experience the thrill of long glider flights, because you'll know right where the lift is. On days with really good lift conditions or when thermals may be passing through, you may gain enough altitude to pull some loops.

Slightly heavier HLGs like the foam-core wing/balsa/plywood Culpepper Models Chuperosa or the foam-core wing and fiberglass-fuselage CR High Performance Products Climmax (slope version) or the Culpepper Models Chuperosa (can be built



Rich Loud's Slope Scale Grumman F6F Hellcat at Soar Utah 1998.

Photos by the author Graphic Design by Carla Kunz



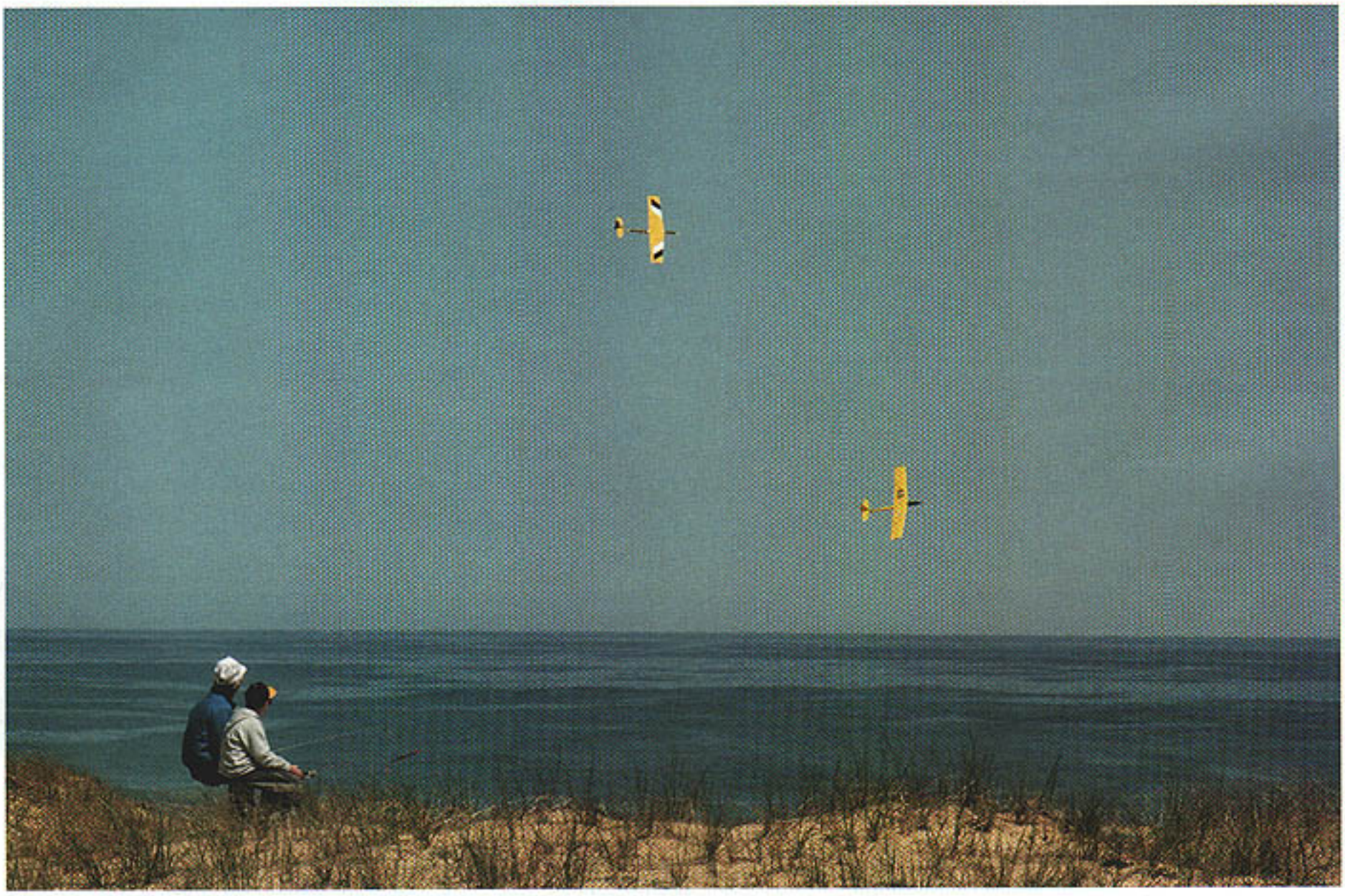
Rich Loud launches a Dave's Aircraft Works FoamMe-109 at a riverside site.

polyhedral or aileron version) will fly straight-and-level in 3-5 mph and will perform loops, rolls, inverted flight, and stall turns in 5-8 mph wind on a decent slope. The Dave's Aircraft Works 60-inch Schweizer 1-26, made of bounceable EPP foam, flies well in light lift and handles rough landings better than other construction methods.

• *Thermal Duration (TD) Sailplanes*: It's no surprise that good TD airplanes make good slope airplanes. You may find that a model that delivers marginal performance in flatland flying comes alive on the slope, because when lift is abundant, flying speeds are higher and controls are snappier. Any TD airplane that flies well on the flatland is likely to fly well on the slope.

Beginner thermal gliders are most often rudder-and-elevator polyhedral, open-bay-wing models with wingspans of 72-100 inches. They generally have wing loadings of four to eight ounces per square foot of wing area. They offer new slope pilots the same advantages they offer new thermal pilots: inherent stability, which means that less control input is needed to guide the model; and slow flight, which gives the pilot more time to react. The high wing mounting and upswept tips of these models tend to reduce landing damage by keeping the wing off the ground.

Examples of open-bay construction models in the Two-meter class I've flown are



Bob Powers and Lou Garwood fly aileron-version Culpepper Models Chuperosas at a coastal site in Massachusetts.





Trick R/C Zagi flying wings over Wilson Lake during 1998 Midwest Slope Challenge.

Left: Dave Garwood flies a CR High Performance Products Fun-1 sportsman-class slope racer at a riverbank site. Photo by Rich Loud.



Lou Garwood flies one of his old favorites, a Sig Ninja, seen here with a homebuilt replacement balsa fuselage.



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the rugged and beautiful Bob Sliff Models Sensoar; the Goldberg Models Gentle Lady, which has probably taught more Soaring pilots to fly than any other; the Great Planes Spirit, which is stronger and faster than most polyhedrals; and the Minimax Enterprise Minimax 700, which is a little more delicate but flies in extremely light lift. The MAD Aircraft Highlander, an EPP-foam Two-Meter TD trainer, looks promising but I have yet to fly it or see it flown.

Larger stick-built polyhedral models worthy of consideration are the Pierce Aero Paragon, a 120-inch polyhedral floater, great for long-duration flights; and the Whyte Wings Olympic II, a rugged, smooth-flying traditional design. These are the airplanes that pilots use to make their eight-hour League of Silent Flight (LSF) flights. (For information on the League of Silent Flight achievement program, see www.slientflight.org.)

It's hard to imagine more-relaxed RC flying than guiding a polyhedral glider in 8 mph wind, silently and gracefully back and forth across the face of the slope, bringing it down only when the onboard batteries approach their limit.

Also in this category are the full-house TD competition machines. If it flies in thermal lift, it will fly in slope lift. I've flown many happy hours on the slope with the old Airtronics Falcon-880, Peregrine, and Swift. These models have the advantage of inflight camber control (you can drop the flaps slightly to hang in light lift, or you can raise them slightly to go faster in high-wind conditions). In sufficient lift, you can pull aerobatics not commonly seen in flatland flying.

• *Purpose-Designed Slope Sailplanes*: Polyhedrals may get you started on the slope, but many slope pilots migrate to the more-precise control of ailerons.

A successful slope design requires a rugged airplane with effective control surfaces. These models generally have semisymmetrical airfoils and a wing loading of 6-12 ounces per square foot, for speed and penetration into the wind.

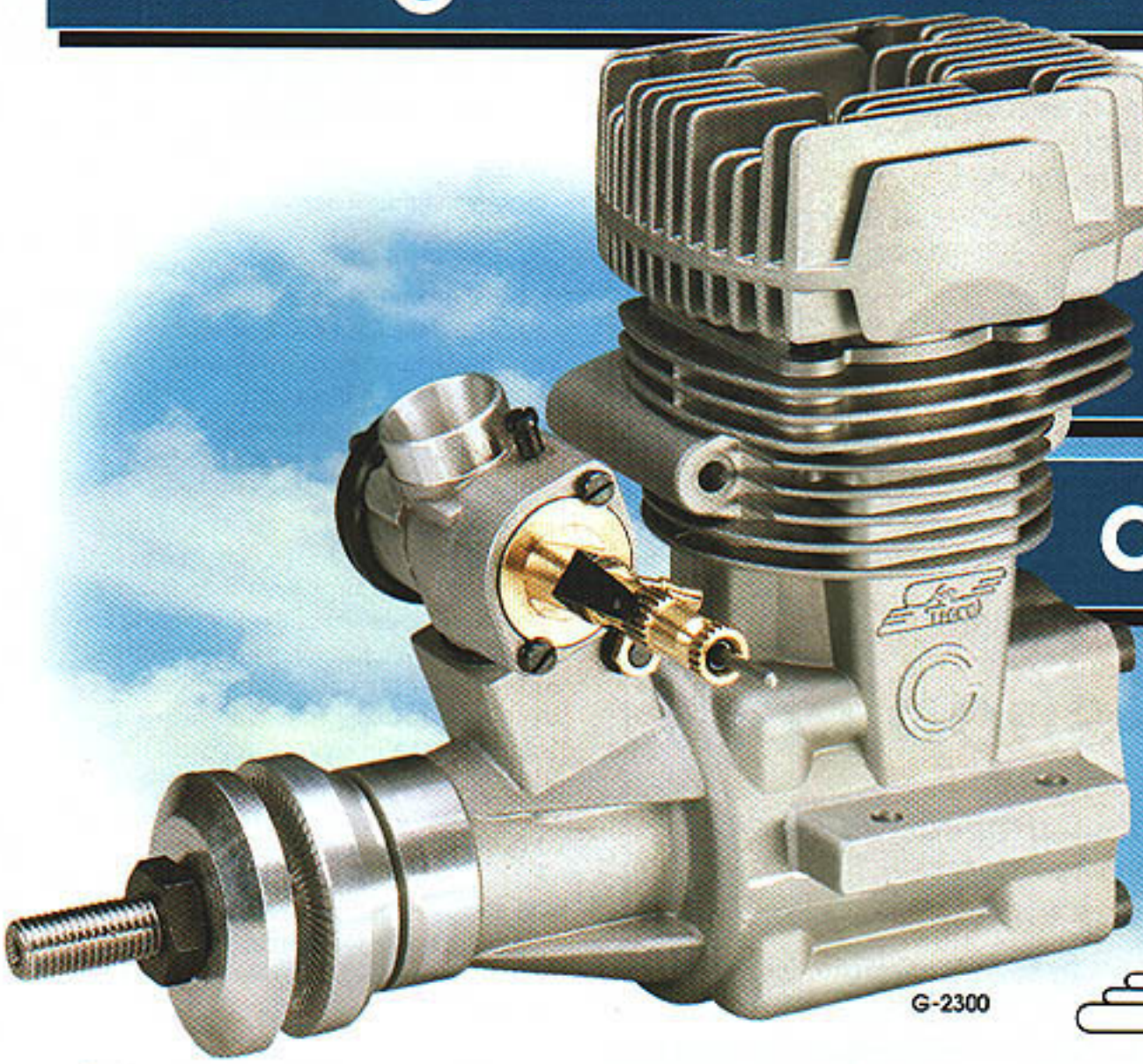
Flying purpose-designed slope models requires some experience and skill. Those graduating from polyhedral floaters must learn aileron roll control to turn—the classic "bank and yank" technique. The aileron slope pilot is rewarded with precise control and aerobatic performance.

These models are generally capable of extended inverted flight, plus loops, rolls, stall turns, Cuban-8s, and Split-Ss. Those with large fins will perform a credible stall turn, even without a rudder; the wind into the hill provides the necessary yaw force to kick the tail over.

The majority of sailplanes flown on the slope fall into this category, and they deliver more stick time than any other type. They provide the aircraft for a newer RC pilot to advance in skill and enter the realm of aerobatics and hot-dogging. Which is more thrilling: your first loop or your first roll? You can learn both in a

The high cost of moving up...

just went down.



2-Year Warranty™

Bigger is better, but it can be more expensive. Unless, of course, you're looking for an IMAA- or IMAC-sized power plant—and then there's the SuperTigre G-2300. From its 23cc (1.41 cubic inch) displacement, it produces an impressive 3.7 bhp at 12,600 rpm. That's more power output per cubic inch than some high-end gas engines deliver, and for a significantly lower price to boot.

And face it: if you're already trying to learn about IMAC or IMAA events, why double your work by trying to learn all about gas engines at the same time? For that matter, why pay more for the privilege of doing it? No reason at all.

Lower cost, more power & more convenience.

Staying with the glow you know makes sense, especially when you end up with an engine *designed* for R/C, instead of some originally-designed-for-grass-trimmin' conversion. In fact, it makes as much sense as the exhaust location on the G-2300. Most engines this size are rear-exhaust designs. That means buying (and fiddling with) a tuned pipe to maximize performance. However, the G-2300 is a side-exhaust design. It performs quite well with the small-can muffler that's included at no extra charge. And with the positionable outlet and header that comes with it, you can vary installation angles to suit your plane to a "T."

Plus SuperTigre innovations and 2-year warranty protection.

Of course, the G-2300 offers more than high-powered affordability and enjoyable conveniences. It also features a durable thermally treated, friction-free steel liner, high performance TST porting (a SuperTigre innovation), lightweight aluminum piston (same story), a 1-piece crankcase reinforced to withstand stress and rounded to equalize pressure, a twin-needle carb for consistent power at any attitude, bolt-through muffler mounting (no threads to strip), a dual ball bearing-supported crankshaft and, finally, SuperTigre's 2-year warranty.

Considering the price and the value, it's safe to say that never has so much been done for giant-scale hopefuls for so little, as by the G-2300. For the location of the dealer nearest you, please call 1-800-682-8948 and mention code number 0423T.

To learn more about SuperTigre products, visit the website at

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single flying season with a purpose-designed slope soarer.

I learned inverted flight and my son Lou learned rolls with our Sig Ninjas. This is an exceptionally well-balanced sailplane, not only in pitch and roll control, but also in its ability to fly in moderate-to-high winds and its predictable performance of aerobatic maneuvers. The Lite Ply fuselage tends to break easily, but you can extend its life for years by building a balsa fuselage.

Other slope designs worthy of building and flying are The Birdworks Avenger, a flying wing built completely from corrugated plastic; and the CR High Performance Products Blazer, which exhibits the same balanced characteristics as the Sig Ninja but comes with a fiberglass fuselage and a longer span, to fly in a wider variety of lift conditions. The Northeast Sailplanes Sparrow, another foam-core wing and fiberglass-fuselage design may be one of the best inland slope airplanes yet designed.

In the foamie arena, the Torque and Recoil Foameron is interesting, with its pivot-wing roll control. It's a fairly high-performance airplane that builds without the use of adhesives. The many Dave's Aircraft Works EPP-foam warbirds could fit in the Scale category, but they are mentioned here because of their excellent medium-lift flight performance and their unsurpassed ability to withstand landing damage and keep on flying. The Trick R/C Zagi is probably the most popular example of quick-building EPP flying wings.

• *Advanced Slope Sailplanes, including racers*: Faster, sleeker, smoother than Group 3 sailplanes, these slope hot rods answer the need for more speed and more maneuverability. They have faster airfoils and wing loadings of 10-20 ounces per square foot (and higher). They tend to use fiberglass and may incorporate pitcheron or wingeron control surfaces to reduce drag.

Flying these rocket ships is vastly different from what most people think glider flying is like. They're lightning-fast and radically maneuverable, yet silky smooth. They'll complete 15-foot-diameter loops and perform five axial rolls in a row 10 feet off the deck. They will hold energy to perform 200-foot-diameter loops if the lift is good enough, and they're strong enough to snap around pylon turns on a race course.

My first high-performance slope airplane was the Sig Samurai—an interesting design where the pivot wing handles pitch control and roll control (the tail surfaces are fixed). This airplane "carved the air" like no other I had flown previously. Observers said, "It cuts like a knife, and doesn't seem to care which way the wind is blowing." I still have two Samurais.

CR High Performance Products is a leader in high-performance slope airplanes, with the Renegade and Raider racers and the value-packed Fun-1 for Sportsman-class racing.

The Birdworks Zipper flying wing pours on some amazing speed and has



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1.20 - 1.50 cu. in. 4-Stroke
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Weight: 10.5 - 11 lbs. **Length:** 65.5 in.
Radio Required: 4-Channel with 6 servos
Kit Number: SIGRC77ARF

EXTRA 300XS ARF

EXTRA SPECIFICATIONS

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1.40 - 1.80 cu. in. 4-Stroke
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maneuverability to match, and it packs for travel in a rifle case.

The Ballistic Slope Soarers out West are partial to John Higgins' Rodent and F-20, which are just about the heaviest, fastest slope airplanes available in kit form.

Slope Scale WW II warbirds are very close to my heart; I have three with servos mounted, and a fourth on the building bench now. These are simple-to-build semiscale airplanes that are designed for performance first and for appearance second.

Yes, they are PSS (Powered Scale Sailplanes) airplanes, but I fly them for advanced performance. They fit in Group 4 and in Group 5, and you can do pretty much anything with them that you can do with a fuel-powered Pattern model except extended knife-edge flight and unlimited vertical rolls. You can fly "half-pipe" stall turns with more Slope Scale sailplanes in the formation than any group of power models.

• *Scale and Power Scale Sailplanes*: The way an airplane looks in the air is important, and the Scale sailplane *aficionados* (and in particular, the Power Scale Sailplane dudes) fly on the slope more than anyplace.

As we said in the beginning, many more sailplanes will fly well in slope lift than in thermal lift, so fatter fuselages and bumpy military scale details are of little consequence when the slope lift is working.

You can fly an accurate model of a sea gull, the R/C Gull from The Birdworks. Durable Aircraft Models makes an impressive large-size P-51 and T-33 from EPP foam. Patton Aircraft has a small-size EPP foam P-49 Warhawk and others, and Slickcraft kits a pocket-size BD-5 slope jet. Vortec Models makes some good-looking foam-core-wing and fiberglass warbirds and jets.

For the purists who wish to model pure Scale sailplanes, Icare Sailplanes imports and makes several medium-size Scale sailplanes, and Sailplanes Unlimited imports many large-size Scale sailplanes. Both of these suppliers concentrate on kits with foam-core wings and fiberglass fuselages; Hobby Lobby can supply these, plus kits of vintage sailplanes built up from sticks and ribs.

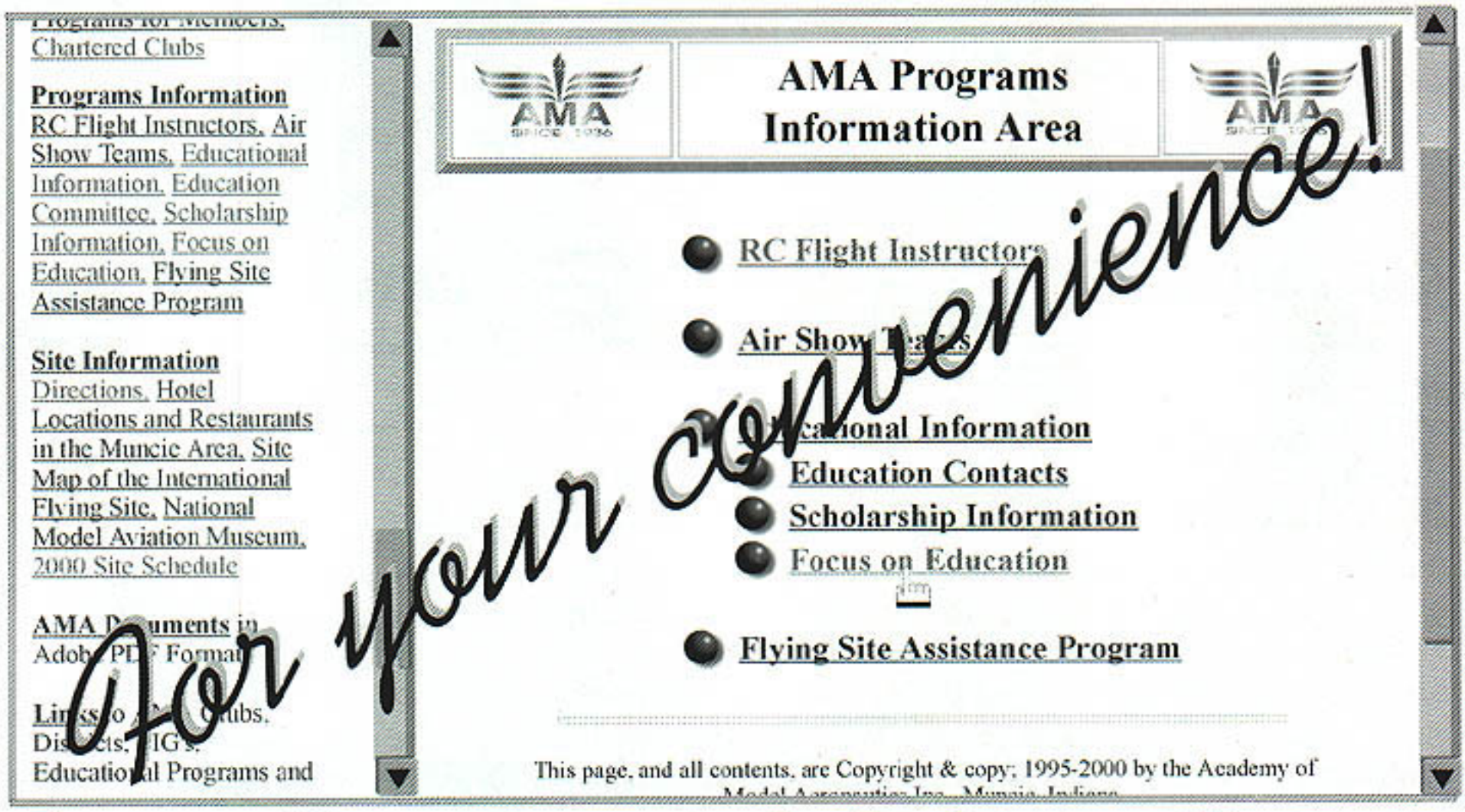
Almost any sailplane will fly on the slope when the lift is right, and so many types and varieties of slope sailplanes are available that you're sure to be able to find one or more that will work well on your closest slope. The trick is to match the specific sailplane to the day's flying conditions, and your own experience level. MA

Dave Garwood
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Manufacturer Names and Addresses

The Birdworks
R/C Gull, Coroplast Avenger





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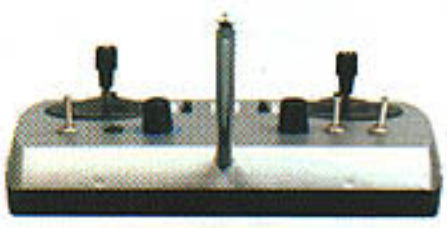
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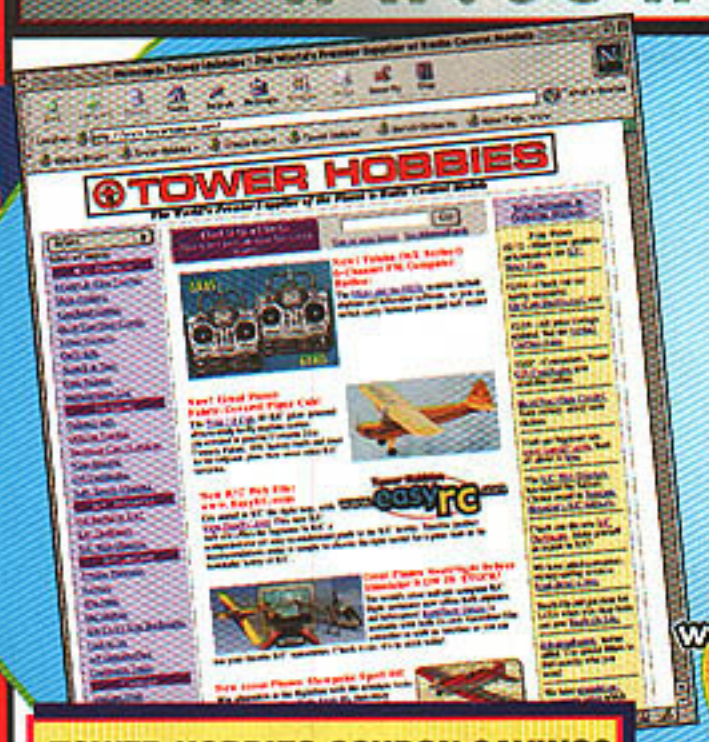
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■ **Dave Robelen**

PERKY PLUS



THIS MODEL IS a development of Perky, an .010-powered sport model I designed several years ago and which was published in the August 1994 *Model Aviation*.

The original concept was to capture some of the nostalgic styling of the earlier "boxy" models, while making use of a modern aerodynamic setup. It is the result of a long-standing desire to combine a compact model with the full capabilities of the larger machines commonly seen in the marketplace.

I had originally considered one of the Cox engines as my source of power; however, the versions that were suitable went out of production. Meanwhile, one of my flying pals showed up with a Norvel BigMig .061 RC that really got my attention.

With the engine of choice warming my workbench, it was past time to whip up an airframe that would have that "something extra" in the way of performance. When I speak of performance, I am really talking about the ability to handle normal breezy weather without handicap, as well as having a superior ability to fly a reasonable slate of maneuvers.

"Wait just a minute," you say, *"there are no ailerons anywhere on that ordinary-looking little crate, so obviously it is really just a warmed-over trainer, and is not worthy of my 'expert' flying skills."*



The above reaction to a three-channel model has been heard often enough that I would like to mention a few considerations.

I started active Pattern flying when the class of entry was decided by the number of flight controls. I chose to compete in Class II, which was essentially the equivalent of today's three-channel model, and I learned to set up and fly models with very competitive results.

Along with the high level of maneuverability, the dihedral effects of the wing give Perky Plus a nearly "autopilot" feel when flying in slow flight. The model is capable of multiple axial rolls, snap rolls upright and inverted, spins upright and inverted, outside loops, and inverted flight, point rolls, and many combination maneuvers.

Perky Plus has a minimum speed of roughly 15 mph and the top speed (depending on the engine) is approximately 65 mph. This level of performance assumes a weight of approximately 14 ounces, which is quite easy to achieve using modern "mini" equipment. I use K&B 500 fuel, which has roughly 15% nitromethane, in my BigMig .061.

Close examination will reveal that Perky Plus is actually a shoulder-wing model with a very deep cabin. This arrangement was

Three channels of fun with a BigMig .061

Photos courtesy the author Graphic Design by Carla Kunz



Perky Plus with its ancestor, the Tee Dee .010-powered Perky (August 1994 *Model Aviation*, plan #766).

chosen to enhance the rolling maneuvers and to provide general "smoothness" in turbulence.

The airfoil is a variation of the ageless Clark Y, which provides an excellent speed range and simple construction. The tail moments and areas had worked so well on the smaller Perky that I used the same layout on Perky Plus (why mess with something that works?). The landing gear is mounted in a torsion layout, which really tracks straight over the bumps and can absorb plenty of punishment.

Even though it lacks beauty, I chose to mount the wing with the time-proven rubberband method. I fly from some pretty rough spots, and this extra flexibility has saved Perky Plus from damage on several occasions. If you want to mount the wing with dowels and bolts, the structure will adapt with ease. Watch those rough landings, though!

As for radio equipment, the idea is to match the airborne package with the job at hand. Any of the mini or micro servos will do; however, the smallest ones are a bit delicate for the long haul. Something like the FMA S-90 would be a great match, and their Tetra receiver would also be in the right size range. I also have had great success with the Cannon line of equipment in this size of model.

A 270 mAh battery will last plenty long, and more would be excessive.

Interested?

CONSTRUCTION

This model should be built from wood on the light side of average (eight- to 10-pound density). The tail surfaces and wing ribs



Performance is spirited with BigMig .061: "Not a schoolyard flier," says the author.



Wing attaches with rubber bands, which "lacks beauty" but is practical for sometimes-rough flying sites.

would benefit from the stiff C-grain stock; the remainder should be nice, clear-grain, warp-free stock. Choose firm wood for the wing spars and leading edge.

The most-important tools in my supply are the sanding blocks, cut from 1 x 2 lumber in several lengths. I attach silicon carbide paper to the blocks with double-stick carpet tape. A selection that includes 100, 150, and 220 grits will do nicely.

Power tools are nice to have, but you can get the job done fine with a sharp hobby knife and one of the razor saw blades. If you can get access to a small jigsaw, the job will go quicker.

The whole model can be built using one of the medium-thickness cyanoacrylate (CyA) glues.

Tail Feathers: Go ahead and stick the parts of the fin together and install the elevator joiner before cutting the elevators apart. Round all of the outside edges, leave the back of the fin square, and sand a nice sharp bevel on the rudder and elevator hinge edge. Set aside for covering.

Fuselage: With the two sides flat on a board covered with waxed paper, glue the various doublers and edge strips in place, along with the 3/16 x 3/8 uprights at the leading and trailing edge. Sand away any excess glue.

Glue the front cabin crosspieces to one side and check that they are square. Glue the other side to these crosspieces while holding the sides together at the tip of the tail. Glue the rear crosspieces in place, checking constantly for squareness.

The firewall should go in next, and must have no side thrust of any sort. Glue the tail together and install the landing gear mount. Check again for alignment and then install the top and bottom planking. Sand smooth all over and round the corners slightly. Set aside for now.

Wing: Round up a flat board large enough for the whole wing and soft enough to stick pins in—I prefer the thin, sharp variety ("silk pins") found in the fabrics department.

Pin the bottom spar to the plan. Using several ribs as spacers, pin the lower trailing edge sheet in place, along with the leading edge. Glue the lower center sheeting in place.

Glue the ribs in place next, noting that the center ribs are undercut for the sheeting. Install the webbing and top spars, along with the top trailing edge sheets.

PERKY PLUS

Type: RC Sport

Wingspan: 33.5 inches

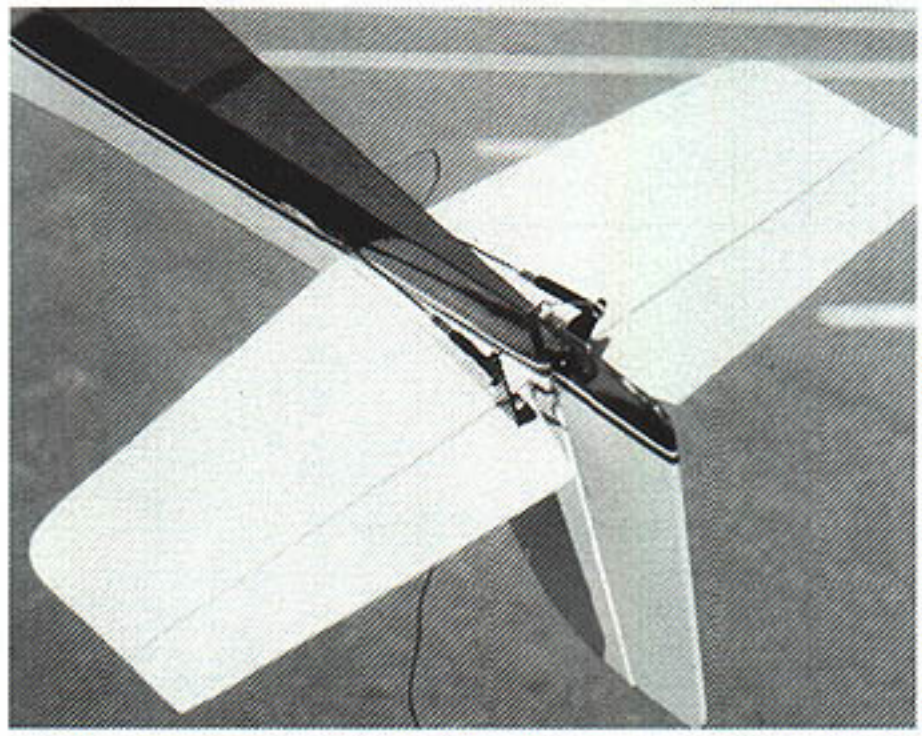
Engine: Norvel BigMig .061

Functions: Rudder, elevator, throttle

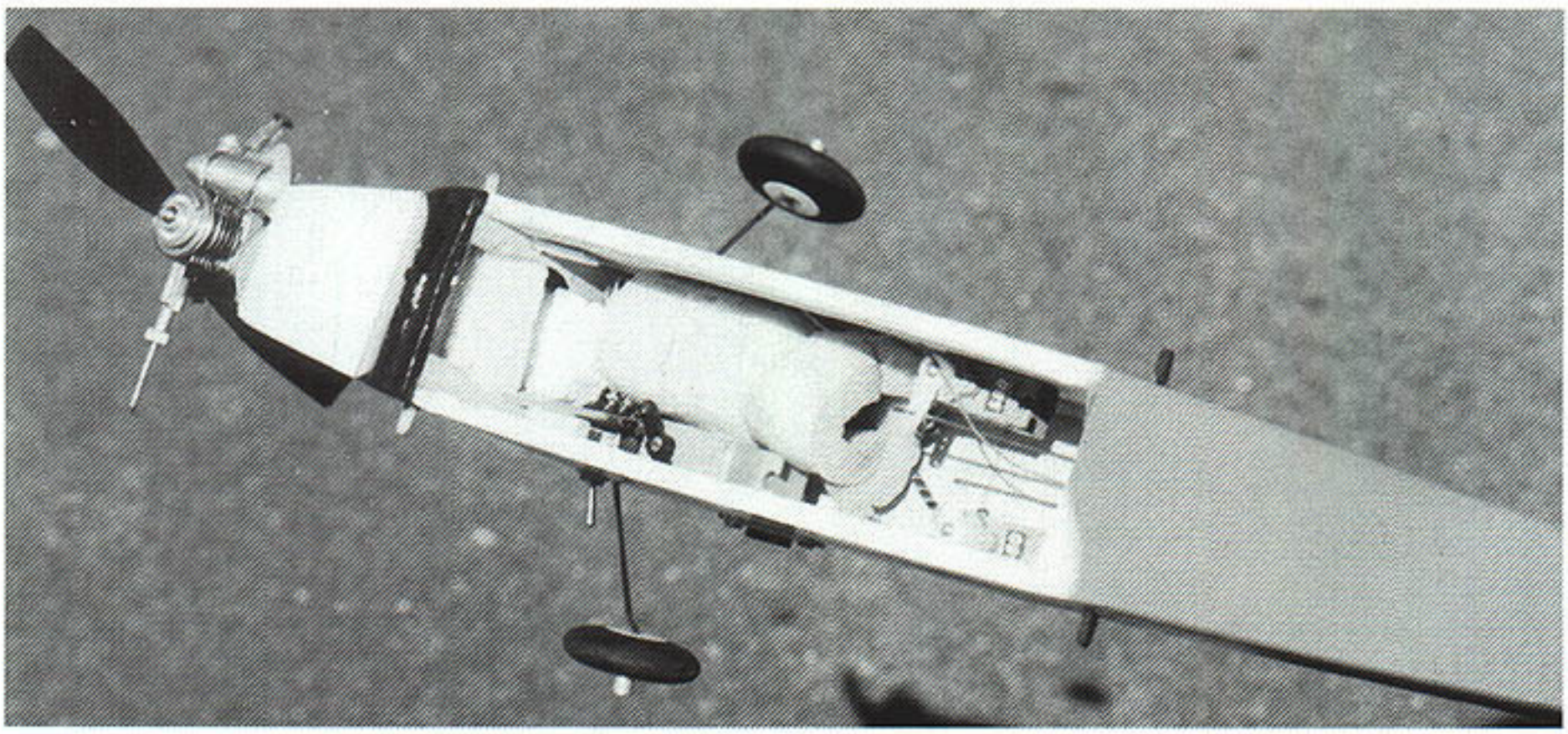
Flying weight: 14 ounces

Construction: Built-up

Covering: MonoKote®

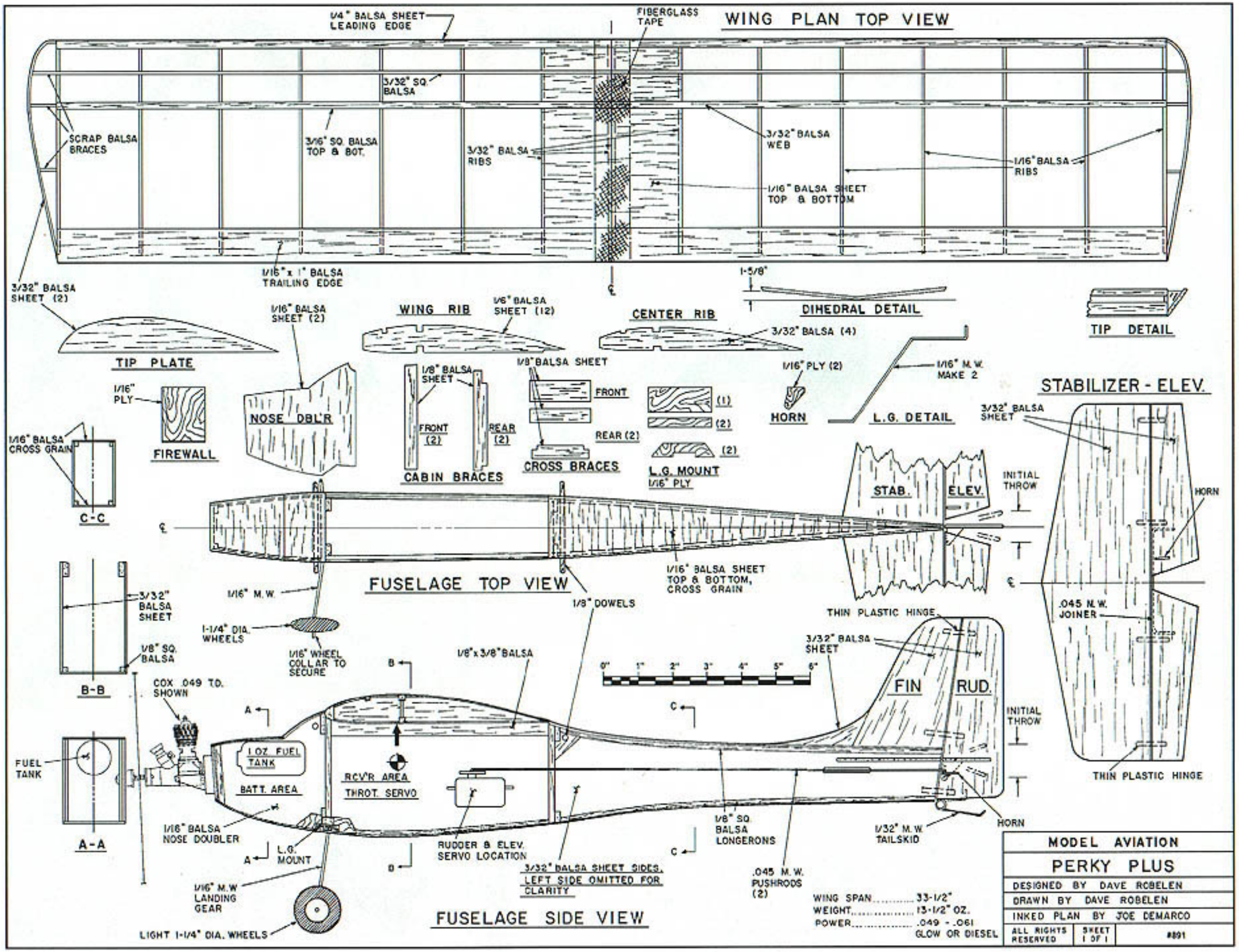


Rudder and elevator pushrods are .045 music wire. Text details author's radio installation and setup procedure.



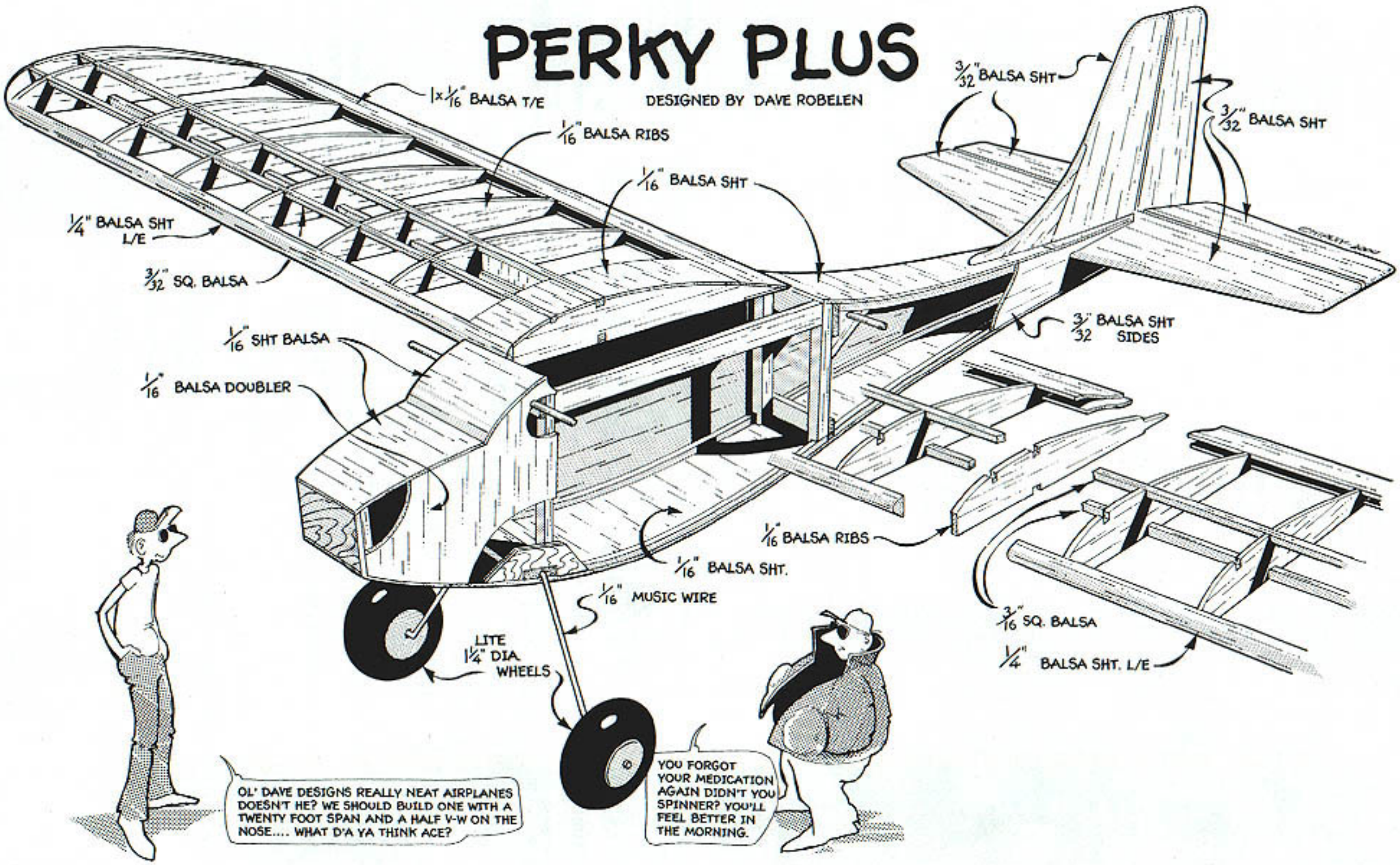
Plenty of room for radio equipment. Servos are mounted with 3M® tape on plywood plates.

Full-Size Plans Available—see page 182



PERKY PLUS

DESIGNED BY DAVE ROBELEN





Finish planking the center and add the tip plates and filler pieces.

When all of this is dry, remove from the board and inspect for poor glue joints. Fix as needed. Sand all of the joints smooth and shape the leading edge as shown.

Cut the wing apart in the center and sand the center to the proper dihedral angle. Prop as needed and glue the two panels together with CyA. I like to glue a strip of fiberglass tape around the center (use thin CyA) for insurance. The result is really strong and will not blister or melt when covering is applied.

Covering: I chose to cover Perky Plus with an iron-on plastic film. Since I had a supply of Super Monokote® on hand, this decision was really pretty simple. Probably any brand would do just fine on the balsa sheeted parts of the airframe; however, it is really important that the wing be covered with one of the high-temperature (stiff) films to avoid the possibility of wing flutter.

I will refrain from a blow-by-blow, because everyone can do a better job than me anyhow. I do recommend bonding the covering completely to the wood surfaces.

Assembly: Start by hinging the elevator. Using one of the thin plastic hinge materials, cut some ⅛ x ½ strips. Use your trusty hobby knife to slice into the exact center of the elevator and stabilizer edges at the locations shown.

Slide the hinges halfway into the elevator, then slide this assembly into the slots in the stabilizer. Wiggle the elevator to ensure free movement and set a 1/32 gap along the hingeline. Put one drop of thin CyA on the top and bottom of each hinge and let dry. Wiggle again to check for freedom and tug on the hinges to check the bond.

Fashion and install the thin plywood horns in the elevator and rudder, and set these parts aside for a bit.

I recommend one of the fiber-filled engine mounts (such as the Dave Brown Products version). I mounted mine with small sheet-metal screws and was pleased with the result. Drill the hole for the throttle linkage housing (the skinny outer tube from a throttle cable set).

Fit the wing dowels and glue securely and then mount the landing gear. I had excellent results using two loops of thin iron wire pushed through the fuselage around the gear and twisted tight on the inside. Be sure to press the ends flat against the inside bottom when complete.

Use a couple of medium rubber bands to strap the wing in position and check the alignment in all directions. Leave the wing in place and slip the stabilizer in its slot. Recheck the alignment carefully.

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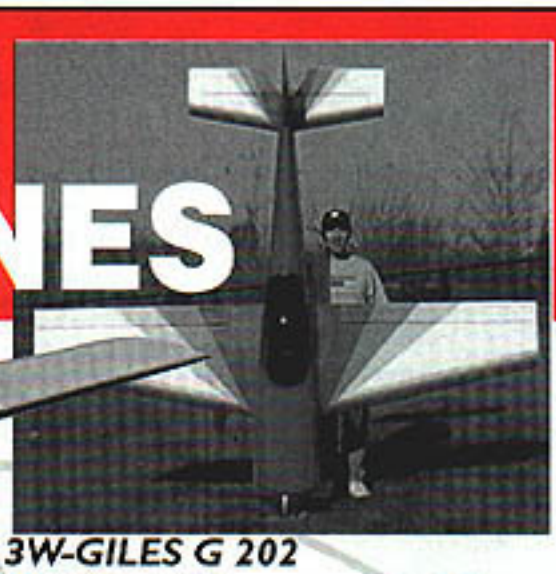
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Wolfgang Matt

3W Planes	WINGSPAN	ENGINE	KIT PRICE	COMBO PRICE
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		3W-140iB2/F		$3,295.
		3W-150iB2/F		$ 3,445.
40% EXTRA 330S	118"	3W-140iB2/F	$ 2,095.	$ 3,525.
		3W-150iB2/F		$ 3,675.
33% PIPER PA 18(*)	155"	3W-100B2	$ 2,095.	$ 3,250.
		3W-120iB2/F		$ 3,350.

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38% EXTRA 300L	118"	3W-140iB2/F	$ 2,195.	$3,625.
		3W-150iB2/F		$ 3,775.
		3W-155B4		$ 4,295.
33% EXTRA 300S	98"	3W-78B2	$ 1,495.	$ 2,525.
		3W-100B2		$ 2,650.
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		3W-155B4		$ 4,495.

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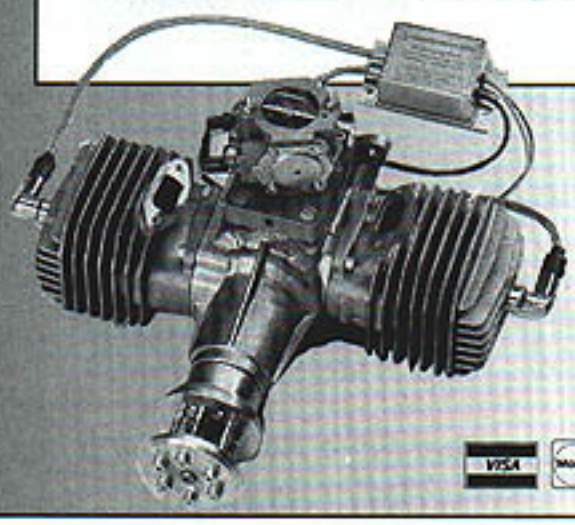
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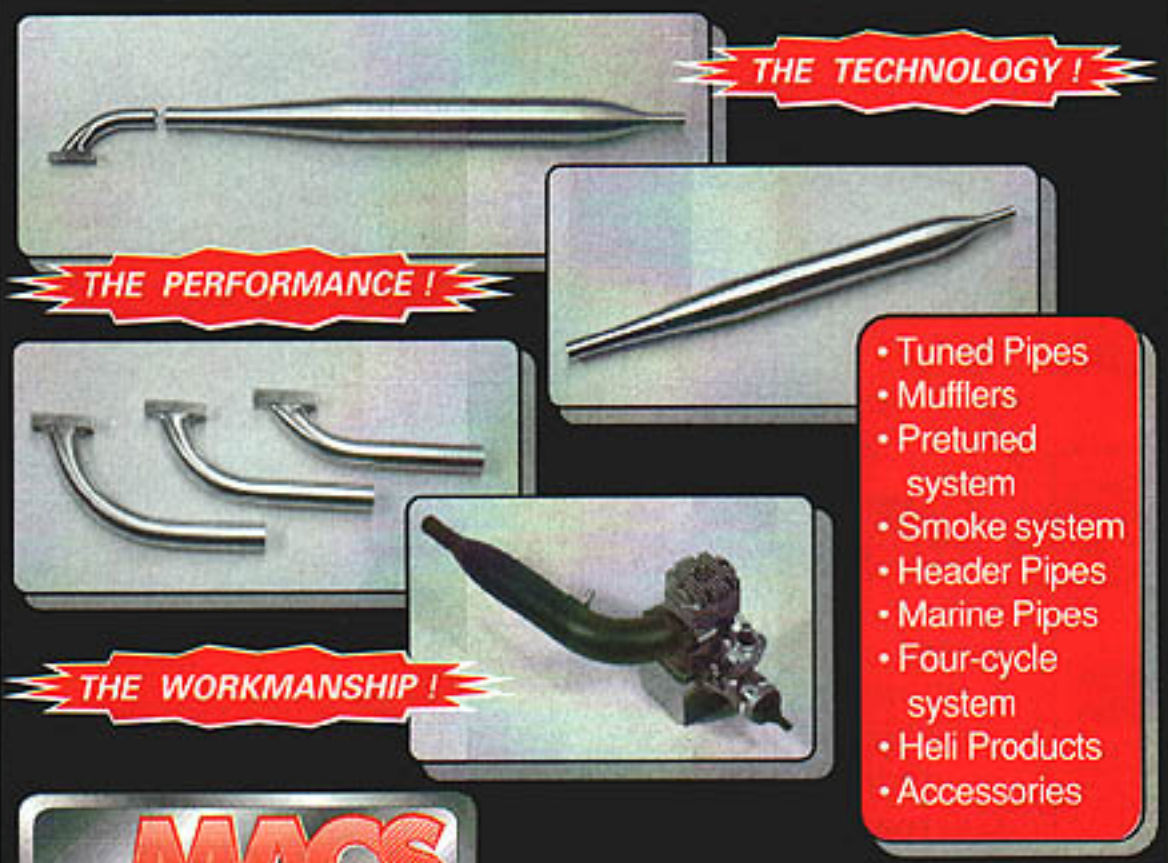
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and when satisfied, glue the stabilizer securely.

Mark the fuselage centerline on the top rear and slice off a strip of covering where the fin will mount. Glue the fin in place and proceed to hinge the rudder in the same manner as the elevator. Mount the tail skid to the rudder as shown.

The fuel tank might be a bit of a challenge; one ounce is a suitable size (lots of luck in the hobby market). I made mine from a plastic bottle that once contained cleaner for soft contact lenses. The tank should be approximately one inch in diameter and two inches long.

Use soft 3/32 brass tubing to make the feed and vent tubes, and fit these with medium silicone fuel line to make a fuel pick-up and a vent to the top of the tank. Usually it is possible to use the top of the bottle to contain these fittings.

Accurately locate the holes in the firewall and pull some of that silicone tubing through, with the tank pushed up into the nose compartment. Mount your engine on the bracket and trim the tubing as needed.

Wrap the battery in foam and slide it up under the fuel tank, using foam as needed to shove the tank all the way to the top of the compartment. Mount the wheels on the axles.

The pushrods are solid lengths of .045 music wire, so chop off a couple of lengths

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Area :694 sq.in Weight: 7.5-8 lbs
Engine Size: 61-75 2cycle; 91 4cycle
Radio Requirement: 4Channels,5 Servos

STAUDACHER GS300 ARF $237.77



Wing span :60" Length: 48.5"
Area :690 sq.in Weight: 7-7.5 lbs
Engine Size: 61-75 2cycle; 91 4cycle
Radio Requirement: 4Channels,5 Servos

EXTRA 300s ARF $237.77



Wing span :61" Length: 52"
Area :720 sq.in Weight: 6.5-7 lbs
Engine Size: 61-75 2cycle; 91 4cycle
Radio Requirement: 4Channels,5 Servos

T34 ARF $247.77

(color painted Fiberglass Fuselage)



Wing span :65" Length: 54"
Area :682 sq.in Weight: 8-8.5 lbs
Engine Size: 61-75 2cycle; 91 4cycle
Radio Requirement: 4Channels,5 Servos

F3A /40 ARF $217.77

(color painted Fiberglass Fuselage)



Wing span :61" Length: 54.5"
Area :694 sq.in Weight: 6.5-7 lbs
Engine Size: 40-52 2cycle
Radio Requirement: 4Channels,5 Servos

EXTRA 300s/40 ARF $187.77



Wing span :57.5" Length: 48"
Area :594 sq.in Weight: 5.5-6 lbs
Engine Size: 40-52 2cycle; 80 4cycle
Radio Requirement: 4Channels

SATROI- I ARF $167.77



Wing span :54" Length: 47"
Area :623 sq.in Weight: 5-5.5 lbs
Engine Size: 40-52 2cycle
Radio Requirement: 4Channels

ASTRO TRAINER H ARF $127.77



Wing span : 60" Length: 50"
Area :730 sq.in Weight: 5-6 lbs
Engine Size: 40-52 2cycle
Radio Requirement: 4Channels

F20 ARF/40 $177.77 ARF/60 $267.77



Wing span : 47" / 56.5"
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Radio Requirement: 4Channels

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TS120AR	19.79	30	28	3.1/17000	2500-12500	179.77
TS108A	17.8	29	27	2.8/17000	2500-12500	157.77
TS108AR	17.8	29	27	2.8/17000	2500-13700	159.77
TS91A	14.95	27.7	24.8	2.4/17000	2500-13700	127.77
TS91AR	14.95	27.7	24.8	2.4/17000	2500-13700	129.77
TS75A	12.29	25.5	24	2.1/17000	2500-13700	117.77
TS75AR	12.29	25.5	24	2.1/17000	2500-13700	119.77
TS61A	9.97	23.5	23	1.8/17500	2500-13700	97.77
TS52A	8.2	22	21.6	1.45/17500	2500-13700	87.77
TS46A	7.45	22	19.6	1.4/17000	2500-13700	77.77
TS40A	6.8	20.5	19.6	1.21/16500	2500-13700	57.77

*All T.S. Engine utilizes front and rear bearing and include muffler

SPINNERS

All Aluminum!



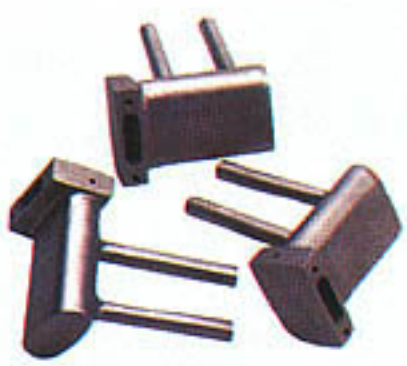


Items	Size	Price	Items	Size	Price
KS001	1.5"	9.77	KS011	4"	41.77
KS002	1.75"	11.77	KS012	4.5"	46.77
KS003	2"	12.77	KS013	5"	53.77
KS004	2.25"	13.77	KS014	5.5"	59.77
KS005	2.5"	15.77	KS015	6"	69.77
KS006	2.75"	16.77	KS016	6.5"	79.77
KS007	3"	21.77	KS017	2.25"	15.77
KS008	3.25"	23.77	KS018	2.65"	21.77
KS009	3.5"	29.77	KS017/018 F20 2.25" and 2.65" long nose spinners are tailormade		
KS010	3.75"	34.77			

Nut Sizes: 6mm X 1.0, 1/4-28, 7mm X 1.0, 10mm X 1.0, 5/16-24, 8mm X 1.25, 10mm X 1.25, 1/4 28, 5/16 24, 3/8 24 X 10# (US)

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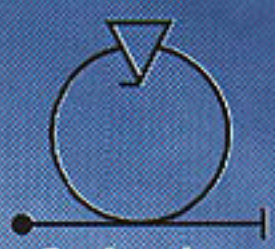
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It's time to add some new words to your vocabulary.



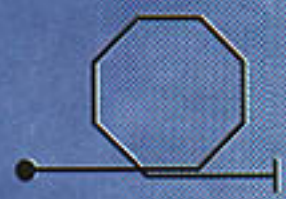
Avalanche.



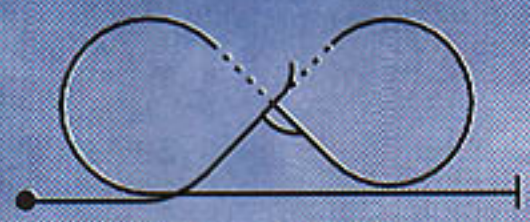
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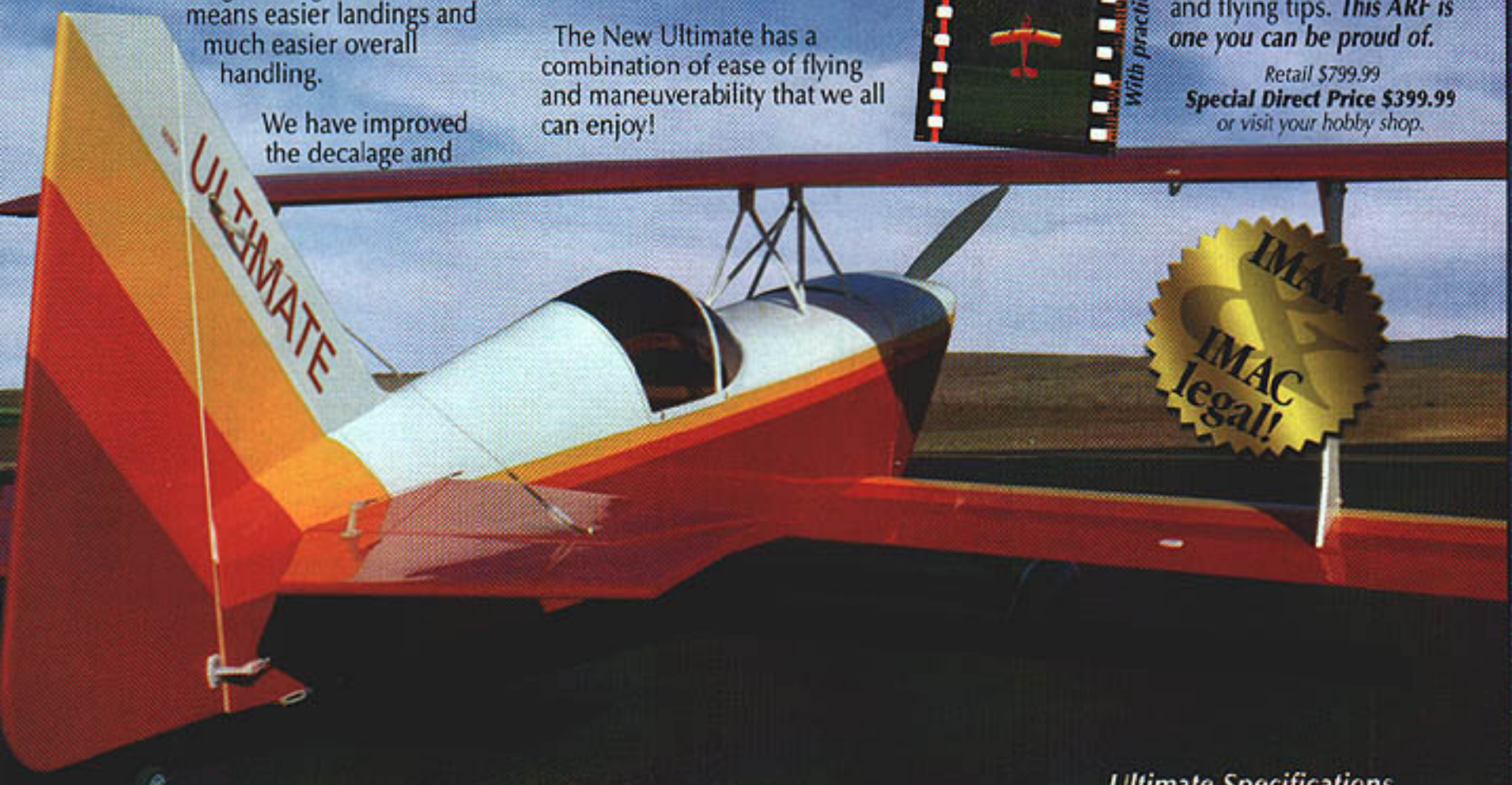


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and tape them to the tail cone in the approximate position.

Place the receiver and servos in their approximate positions and check the nominal balance without the wing. Shift parts around as needed and note their best position.

I have successfully used servo mounting tape in these small projects. There are a couple of things that contribute to a solid mounting job: glue a patch of thin plywood on the balsa in each location for a servo, and use quality mounting tape. I am fond of the 3M® brand of tape, sold in quality craft shops and some office-supply stores.

Mount the two rear servos first, using the following procedure to find the rod length:

Plug the radio equipment together, and turn it on. Set the neutral position on each servo trim, then turn the batteries off (receiver first). Make one tight Z bend in the wire end and fish the unbent end through the guide hole toward the servo. Hook the bend in the control horn in the position shown and reach in the cabin and line up the other end with the servo arm. Mark the wire with the control surface in neutral and bend the servo end to mate with the desired hole. Do this twice and you will have a set of pushrods.

The throttle is only a little different:

Glue in a guide tube that comes back almost to the servo, and round up some .020 music wire. Since the holes in the servos and engine arm are way too large, they need to be bushed. I have had good results with small eyelets mashed in the holes, and with slices from a plastic tube from a can of WD-40® pressed in the holes.

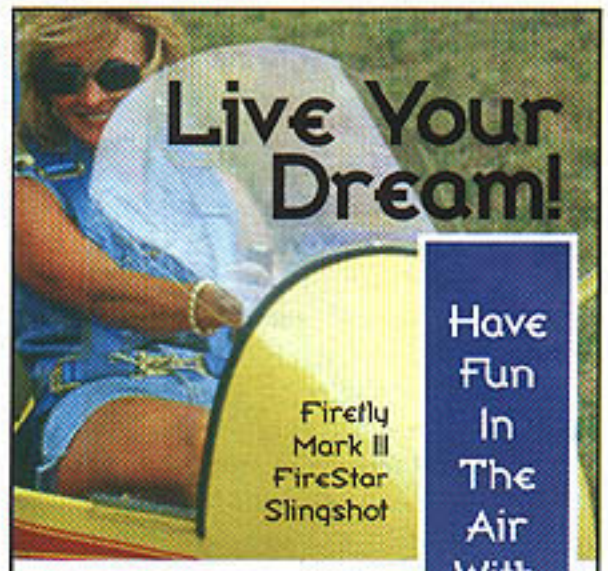
This time we want to crank up the system and move the throttle servo from one extreme to the other. Mark these points on a scrap of business card or such, and compare with the throttle arm throw. The goal is to choose a combination where the servo hole moves just a little less than the throttle (never more).

Move the throttle lever to idle and set the trim in the middle of its range. Bend up the thin wire pushrod so that the carburetor arm is just touching the idle stop when the servo is at idle.

(I removed the idle stop screw from my engine so that I could set the idle with the transmitter trim. It also assures that my throttle servo will never be pulling against a solid stop and draining the battery.)

Field Time: Take the time to charge the batteries and do all of the things I forgot to mention to complete your model. Now check the Center of Gravity (CG) one more time and check really closely for any warps (remove if found). Do a decent range check and inspect the whole model again for forgotten stuff.

Do the controls move the right way? Have you run the engine yet? No? Please



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consider making a simple test stand for break-in and basic adjustment. The worst possible scenario is to drive a long way to a flying field with a brand-new engine mounted on a brand-new aircraft, and actually expect to have a good time!

My BigMig ran on straight suction feed (no muffler pressure) with great top rpm and a very reasonable idle with acceptable acceleration using K&B 500 fuel and a 6 x 4 Master Airscrew prop.

When I began flying the original Perky Plus, there were situations where the engine would go lean in hard maneuvering (it was broken in). Since the muffler had a pressure tap, I decided to hook it to the vent line for better feed under load. The change was obvious! I had to screw the needle valve in a bunch for a smooth setting, and it had the power for any maneuver. But the engine would die lean whenever I moved the throttle to idle.

After considerable messing around, I found that the throttle moved on a screw thread to lean the mixture at idle by moving the needle valve closer to the main jet. In effect, with the muffler pressure connected, the needle valve was all but closing off the flow of fuel as it approached the idle setting.

My solution was to assemble a second needle valve and install it in the main feed line. In effect, this made the original needle valve the idle control, while the new needle controlled the top end.

With all these changes, the engine had a good top end and a nice, slow idle, but ratty acceleration. The final change was to try a Cox glow head from a Black Widow, which fit right into the BigMig without any fuss at all. This plug runs just enough hotter that I now have the whole thing—idle, acceleration, and top end.

This in no way is meant to be a criticism of a fine product, but rather, my experience with an individual installation.

Flying: Assuming that your machine is reasonably aligned and balanced, pick a pretty day and let's get to it.

Take off from a runway if you can; toss it if you must; but go for some altitude and throttle back to cruise. Were you surprised at the speed at full throttle? This is not a schoolyard flier!

Assuming that the controls trim out at neutral for straight-and-level flight, let's set the maximum throws.

Set the throttle for medium cruise and snap the stick back in a U movement so that the elevator reaches maximum just before the rudder. Did it snap roll or do a barrel number? If it did not snap cleanly, you need more up-elevator (to a maximum of 30°). If it still balks at the snap, it probably is nose-heavy and needs the CG moved back a bit.

Once you have all this working to taste, spend some time with different propellers. My personal favorite is a Cox 7.5 shortened to 6.2 inches. This gives me a good blend of speed, power, and fuel economy.

If you choose to build one of these little gems, I hope you have as much pleasure as I have had with my model. If you have any comments or questions, please write. MA

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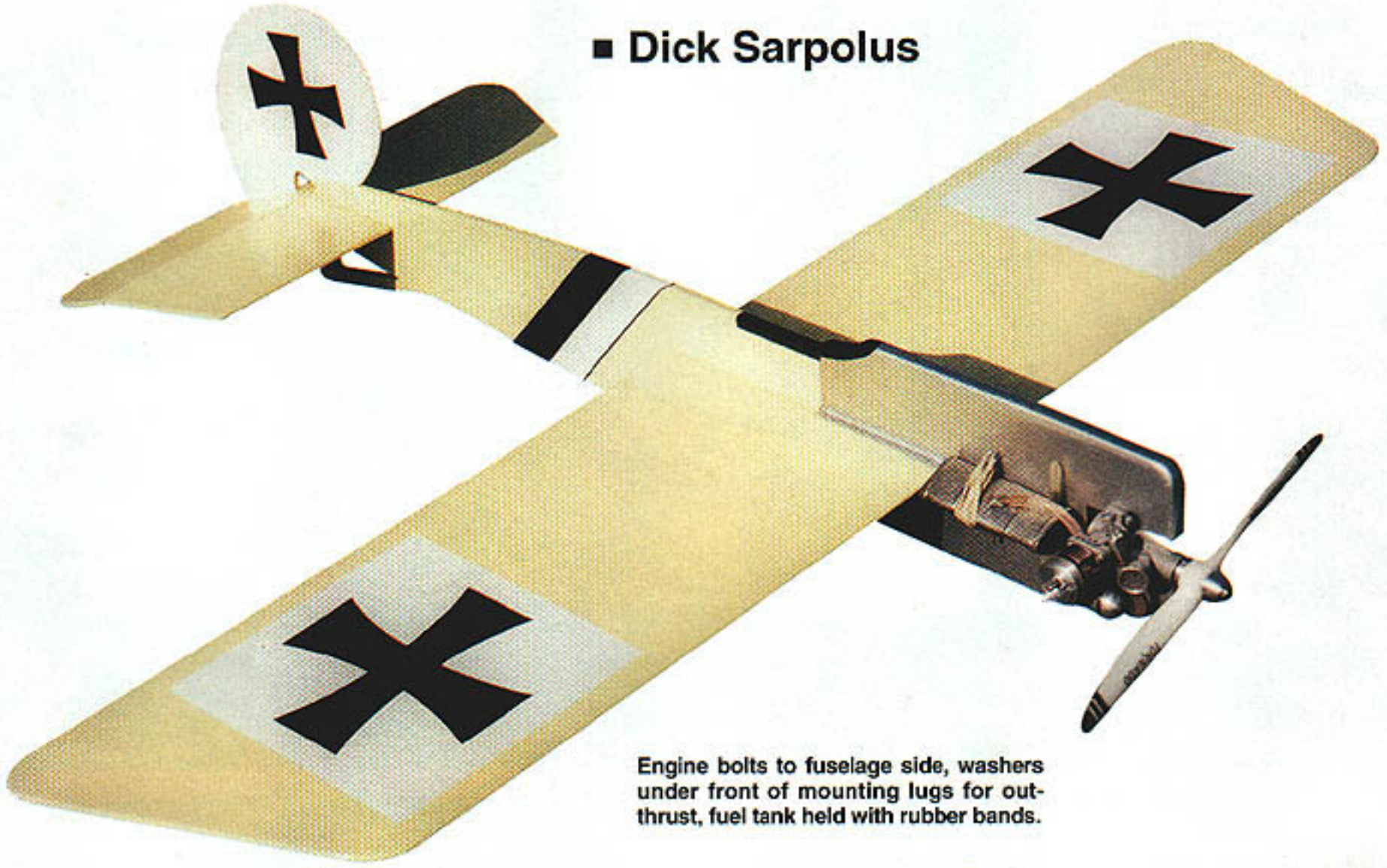
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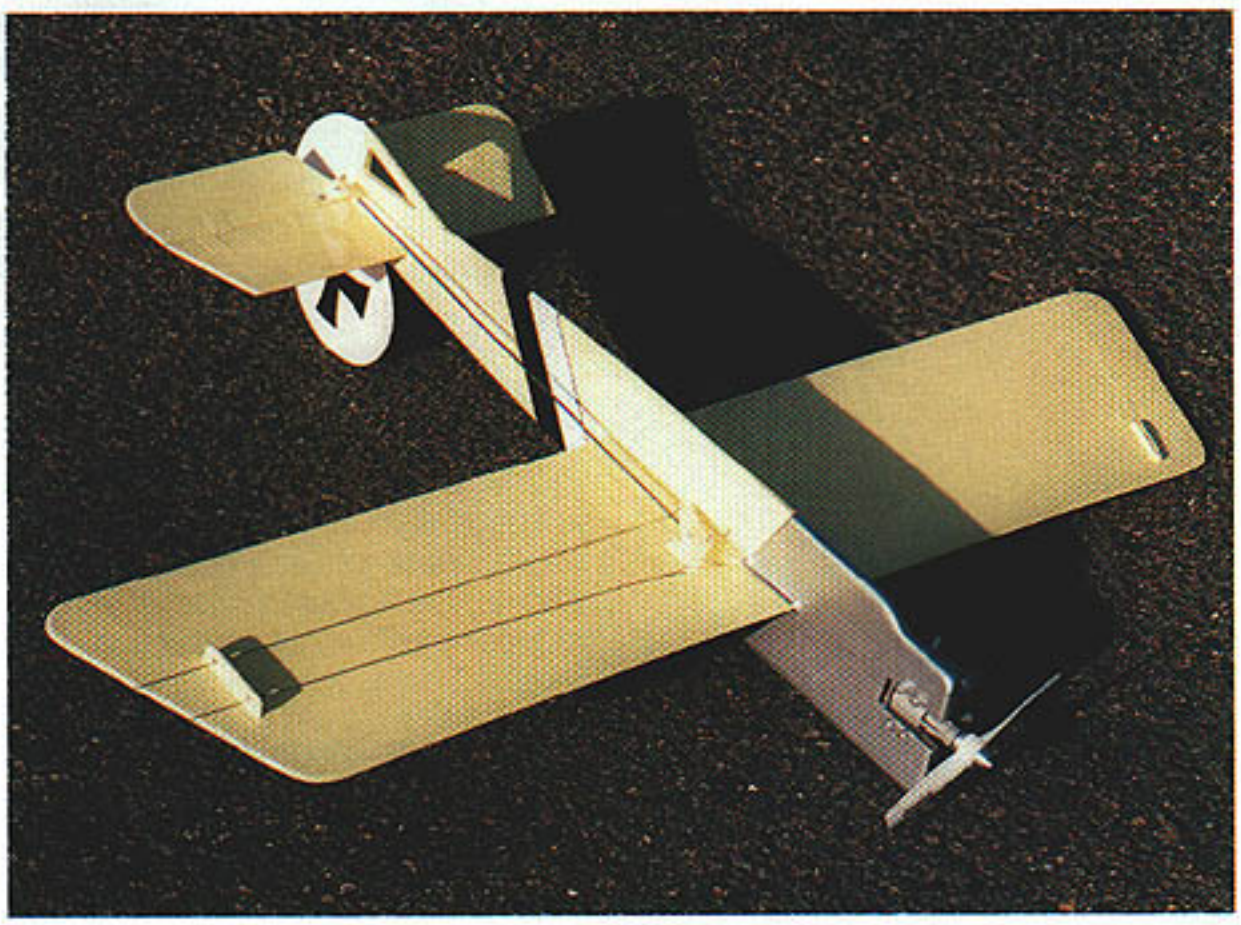
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EINDECKER

■ Dick Sarpolus



Engine bolts to fuselage side, washers under front of mounting lugs for out-thrust, fuel tank held with rubber bands.



Bottom of Eindecker shows control system components: nylon bellcrank, wire leadouts, wire pushrod, nylon control horn on elevator, tip weight on outboard wing.

Profile Control Line (CL) models have been popular for many years. The construction technique of using one piece of sheet balsa for a fuselage is certainly a quick-and-easy way to build an airplane—as long as you don't mind the appearance of this "slab" fuselage, as compared to the more-conventional built-up style with a cross-section.

Profile models can fly extremely well, and modelers can forgive the less-than-realistic appearance in favor of building ease and speed.

Throughout the years, CL enthusiasts have built models resembling almost every type of full-scale aircraft for sport and aerobatic flying. True scale authenticity is sacrificed to get the model proportions needed for good CL performance.

Probably the most-popular full-scale aircraft to be replicated have been World War II and newer single-seat-fighter types, such as Mustangs, Bearcats, Sabres, etc.

The aircraft least-likely to be CL subjects have been the World War I types. They don't look particularly attractive, aggressive, or capable of active flying performance by today's standards.

Photos by the author Graphic Design by Jill Ann Cavanaugh

And it might bother an aviation enthusiast to see a WW I fighter model going through maneuvers that the original aircraft's designer and pilots couldn't even have thought of—much less tried to perform.

In spite of these good reasons *not* to build a WW I CL model, I decided to try it for fun—and in the all-sheet-balsa Profile ½A class, to keep the effort easy and quick.

Also, I had recently done several large Scale World War I designs, so I had three-views and information handy.

Biplanes would have been too much of a stretch. I looked for WW I monoplane fighters to keep things easy, and the well-known Eindecker was an obvious choice.

½A-powered sheet-balsa Profiles are the bargain way to enjoy CL flying; they are easy to build, low-cost, and offer a good bit of aerobatic capability.

Often underestimated, ½As with a good engine on the proper aircraft, and flown on 35-foot or longer wire lines, can be flown through most (if not all) of the aerobatic pattern well enough for plenty of flying fun and/or actually learning the pattern maneuvers.

½As are light and strong enough to bounce back from most crashes when flown over grass fields, so they are suitable for beginners. Good fliers can use their flying ability for relaxed flying fun.

The Norvel BigMig .061 CL engine is such a pleasure to operate, I looked forward to a new-airplane excuse to get out and fly with it some more.

After spending time at the drafting table, armed with an Eindecker three-view drawing and a good idea of the moments and proportions I wanted, I had the plans for a new project. A wingspan of 29 inches, a wing area of roughly 170 square inches, and an overall length of approximately 22 inches should provide the aerobatic capability I wanted.

Any larger, and the ½A engines—except the Norvel—probably wouldn't provide adequate performance; any smaller with less area, and the airframe couldn't handle the maneuvering.

I took many liberties with the basic Eindecker design, but this project wasn't intended for Scale competition. I think the result—trimmed well—will be recognizable as the classic WW I aircraft.

I've made approximately two dozen ½A Profiles throughout the years, and one or two had a landing gear. Most flying is over grass fields, and a landing gear on an aircraft this small isn't practical on grass. Hand launches and belly landings are the way to go.

If you must have a landing gear—you fly from a paved or dirt field (crashes will hurt)—the plans show the location of a scale-type gear that could be made from 1/16 wire and light wheels.

WW I aircraft look strange without landing gear, but it doesn't bother me too much.

EINDECKER

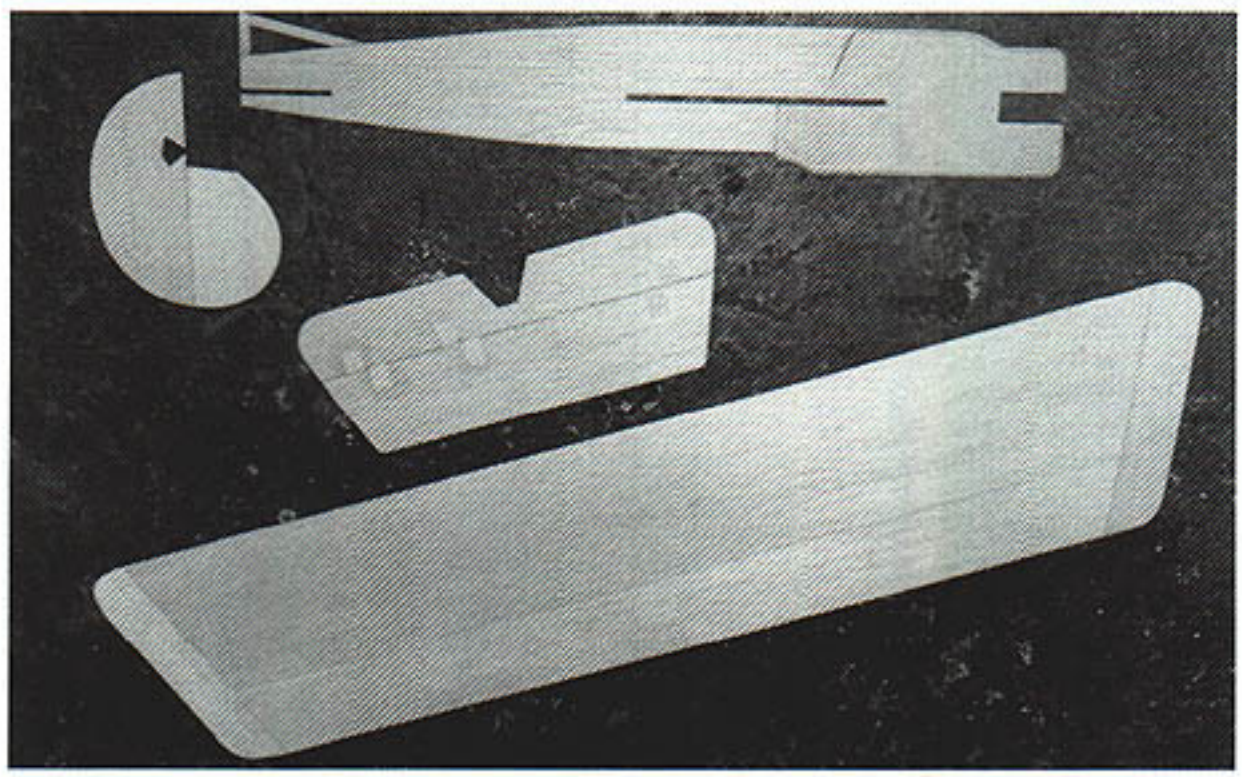
Type: CL ½A Profile

Wingspan: 29 inches

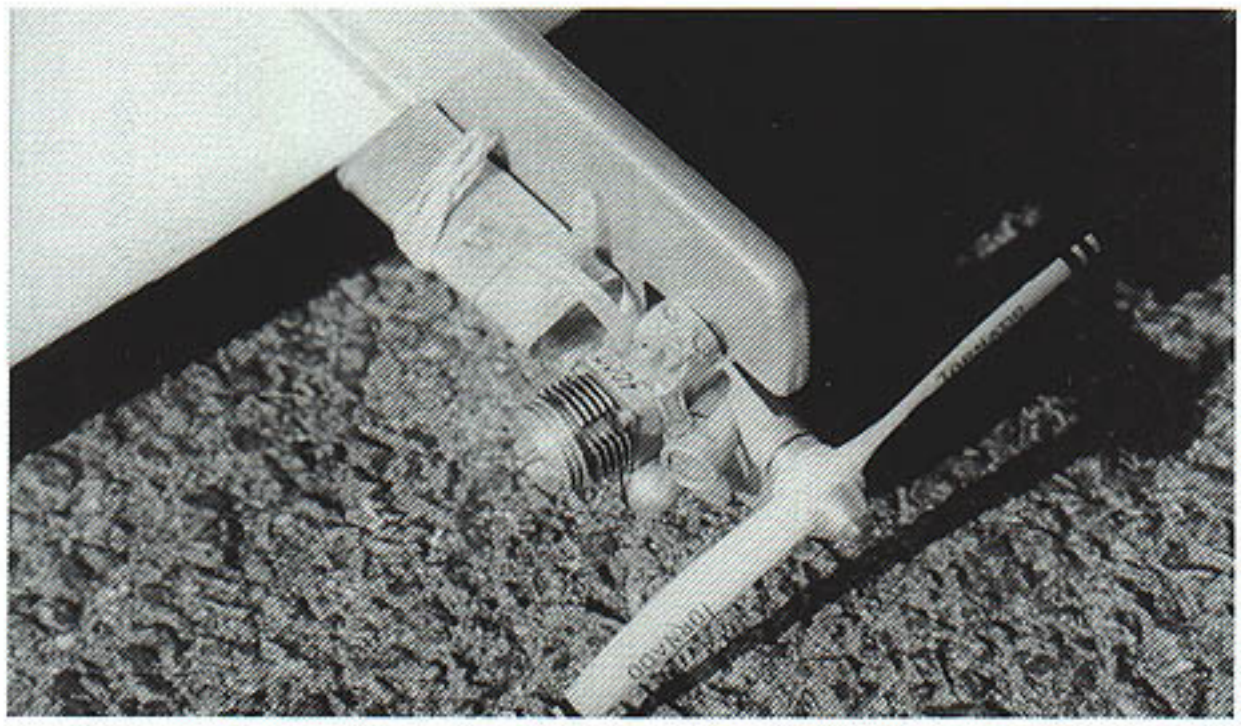
Engine: Norvel BigMig .061

Construction: Sheet balsa

Covering/finish: Butyrate dope



Wing trimmed, sanded; elevator hinged to stab, edges sanded; rudder glued to fin with offset; and fuselage assembled with engine mounts between plywood doublers.



Engine mounting with out-thrust shown, fuel tank close behind engine. Norvel BigMig .061 is an easy-handling, fine-running engine with plenty of power.

Full-Size Plans Available—see page 182

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1/16" WIRE PUSHROD

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EINDECKER

1/2A CONTROL LINE STUNT/SPORT

DESIGNED and DRAWN by DICK SARPOLUS

#892

The plans show a machine gun and windshield; if you really want to add some scale detailing for fun, do so.

CONSTRUCTION

Construction techniques are standard and well-proven.

A jig saw or band saw makes cutting the parts easy.

Cut the plans to use as templates, or trace the part outlines if you want to save the plans.

The fuselage is ¼ balsa, with 1/32 plywood doublers over the nose section and ¼ square hardwood engine mounts inserted into the fuselage.

Wing and tail surfaces are ⅛ balsa. Edge-glue the balsa from whatever widths are available to get the sizes needed; ⅛ may be overkill for the tail surfaces, but it's convenient to use the same-size material.

I don't worry much about wood selection; I'm just trying for medium weight and firmness. Really hard balsa is rugged, but too heavy, and soft balsa breaks too easily.

The models bounce from most crashes into a grass field. When they do break, 5-minute epoxy or CyA (cyanoacrylate) instant glue can get them back into the air. Thin glass cloth can reinforce bad breaks, if necessary.

Hardware is the usual stuff: molded nylon two-inch bellcrank, bolt-on small nylon horn, 1/16 wire pushrod, .025 wire leadouts, and a small metal fuel tank. I still use the Perfect brand of tanks; they've been around for a long time.

The traditional cloth hinges are easy to glue on, they provide free movement, and they last. I use multiple coats of old-fashioned model-airplane glue to attach the hinges, and I assemble the rest of the airframe with 5-minute epoxy.

I form small fillets with my finger for appearance and strength at the fuselage/surface joints.

Fuselage: Glue the engine mounts in place at the proper spacing to suit the engine you'll use; an option other than the Norvel is the Cox Tee Dee .049 or .051.

Other ½A engines are the Cox reed-valve types with built-in tanks; they cost less, but they deliver less power. You could use the Coxes by redoing the front of the airplane, cutting away part of the nose section for a plywood firewall.

That's okay for learning to fly, but go for the more-powerful engine if you want to do the Stunt pattern.

Use epoxy to glue the plywood doublers in place on the fuselage. Mark and drill the engine-mounting holes through the plywood and hardwood engine mounts.

For a cleaner installation of the wire hook that retains the fuel tank, cut a slot only on the outboard side of the fuselage, and epoxy the hook into the

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fuselage with a small plywood filler piece in the slot.

Wing: The separate tip sections glued on will help the wing resist warps.

Sometimes these thin-sheet-balsa wings do twist and warp after the model is completed. I don't think there is a way to get rid of the twist in a finished model, but the warps don't bother the airplane's flying qualities because the wings are so flexible.

Round the edges of the wing and tail surfaces, and glue the rudder to the fin so it is offset roughly ¼ inch toward the outside of the flying circle.

A small piece of lead or wire solder glued to the bottom of the outboard wingtip is the tip weight.

Final Assembly: Slide the wing through the fuselage slot and align it at right angles to the fuselage. I use a few pins to hold the wing in place, tack it with CyA glue, then use epoxy for a strong joint.

Glue the tail surfaces to the fuselage, aligning them with the wing. Be sure to check from the side that the engine thrustline, wing, and stabilizer are parallel.

Add the plywood bellcrank mount, leadout guide, and outboard tip weight. Mount the nylon bellcrank with a small screw.

Bolt a nylon control horn to the elevator and link it to the bellcrank with a 1/16 wire pushrod; it should be made the right length for the elevator and bellcrank to be lined up in their neutral positions, so you get equal elevator movement in both directions.

With everything checked out, the engine, bellcrank, and control horn are removed, to be reinstalled with the leadouts and fuel tank after the model is painted.

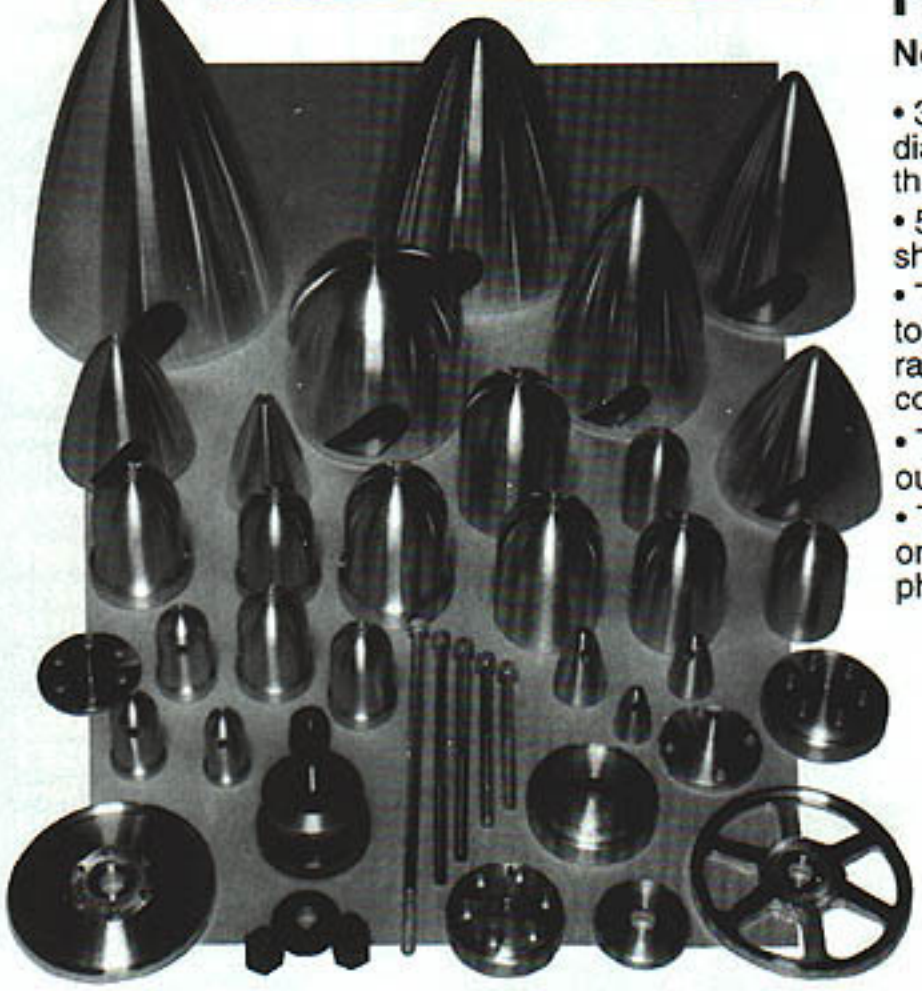
Finish: I still use traditional butyrate dope to finish all-balsa projects such as this; it's been working for me for 40 years.

Do not try for a perfect finish, with all signs of the wood grain hidden; it would take too much paint and would add too much weight. I use just enough paint to get a reasonable finish and protect the wood from spilled fuel and exhaust oil.

After thoroughly final-sanding the bare balsa, apply one coat of sanding sealer, sand it well, then add four or five coats of clear dope, sanding between coats. This goes on quickly and seals the wood enough to accept two or three sprayed-on coats of color.

I brushed white dope on the Eindecker's fin/rudder and insignia locations on the wings, then I masked those areas off and sprayed the rest of the aircraft with cream dope.

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I did the nose section with aluminum dope, and masked off the fuselage's black and white stripes for painting with a brush. With the paint job finished, I gave the whole airplane a few coats of clear dope for protection and gloss.

I used vinyl computer-cut German WW I insignia crosses, done for me by Vinylwrite Custom Lettering (16043 Tulsa St., Granada Hills CA 91344)—a friendly, helpful outfit.

Preflight: Add the engine, tank, and control hardware, then check for proper balance.

If nose or tail weight is needed, drill a ⅛-inch hole into the fuselage and glue in a length of heavy solder or a large steel nail. These things usually balance close enough without adding weight.

Use a washer under the front of each engine-mounting lug for several degrees of out-thrust, to assist in keeping the lines tight while flying.

I use .008 or .012 stranded cable flying lines, and I have heard that solid wire lines offer even less drag for better performance. I still use the cable lines to better-resist kinking and eventual breakage.

Flying: First flights of the Eindecker showed that it was tail-heavy—too sensitive to the controls.

Adding nose weight improved things greatly, and I plan to add a bit more; handling is a personal thing, and an airplane should be trimmed to suit its pilot.

The first flight ended with an inverted landing, and the second flight ended with a straight-down landing when the engine ran out of fuel at an inopportune time—no damage to the airplane though, flying over grass.

I'm going to try 40- and 45-foot lines; the Norvel engine is so powerful—or my flying ability is slowing down so much—that I'd like to get longer lap times. I will also try a larger-diameter and/or lower-pitch prop.

When flying from the necessary hand launch, have the launcher keep the lines tight and point the airplane slightly toward the outside of the flying circle, as he or she takes a few steps forward and releases the airplane in a level position with a forward arm motion.

Adjust the engine before launch, with the airplane held pointing up at a steep angle.

These small, simple aircraft can surprise you with their abilities; try every maneuver you can think of, relax, and enjoy this "direct connection" form of model aviation. MA

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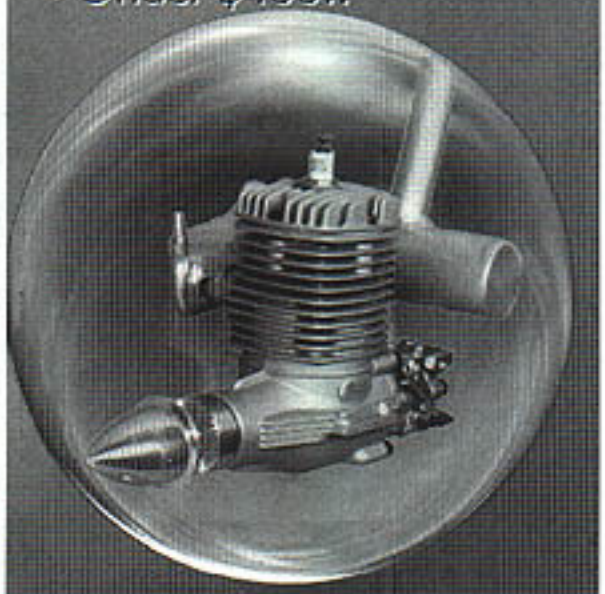
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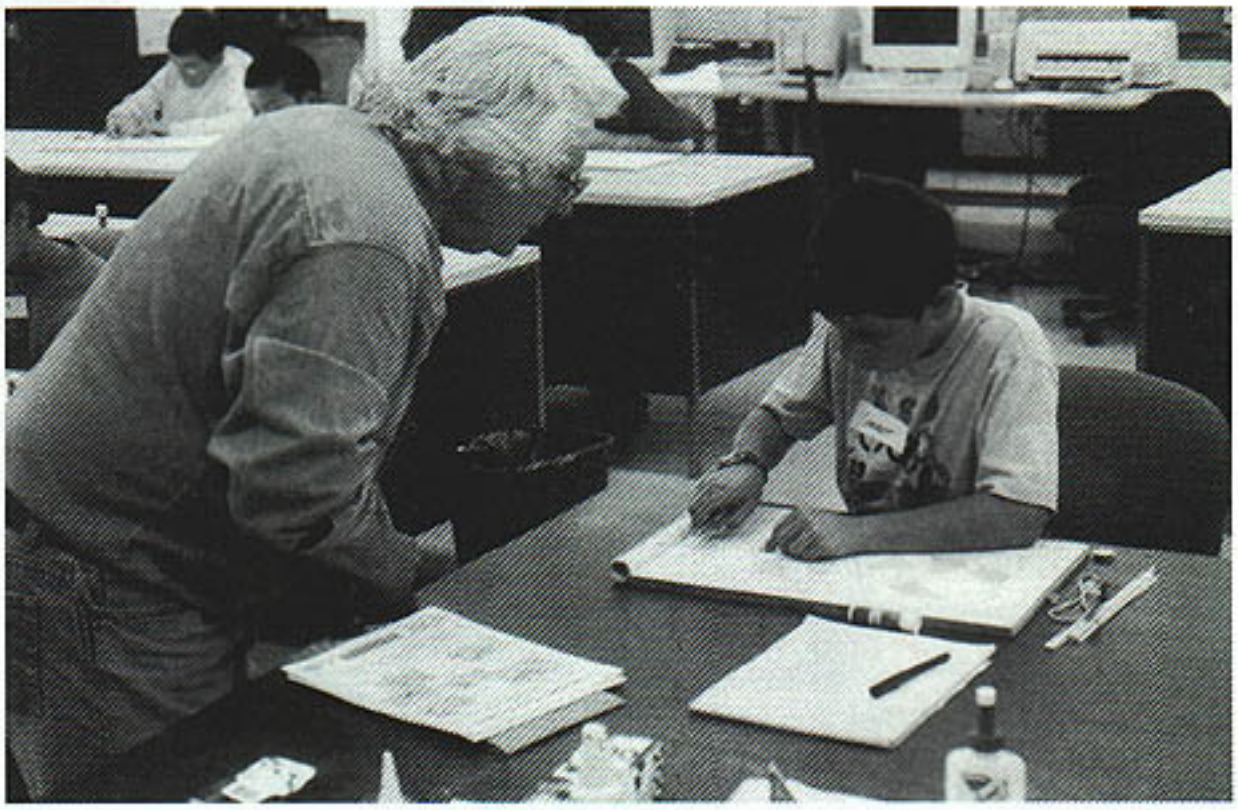


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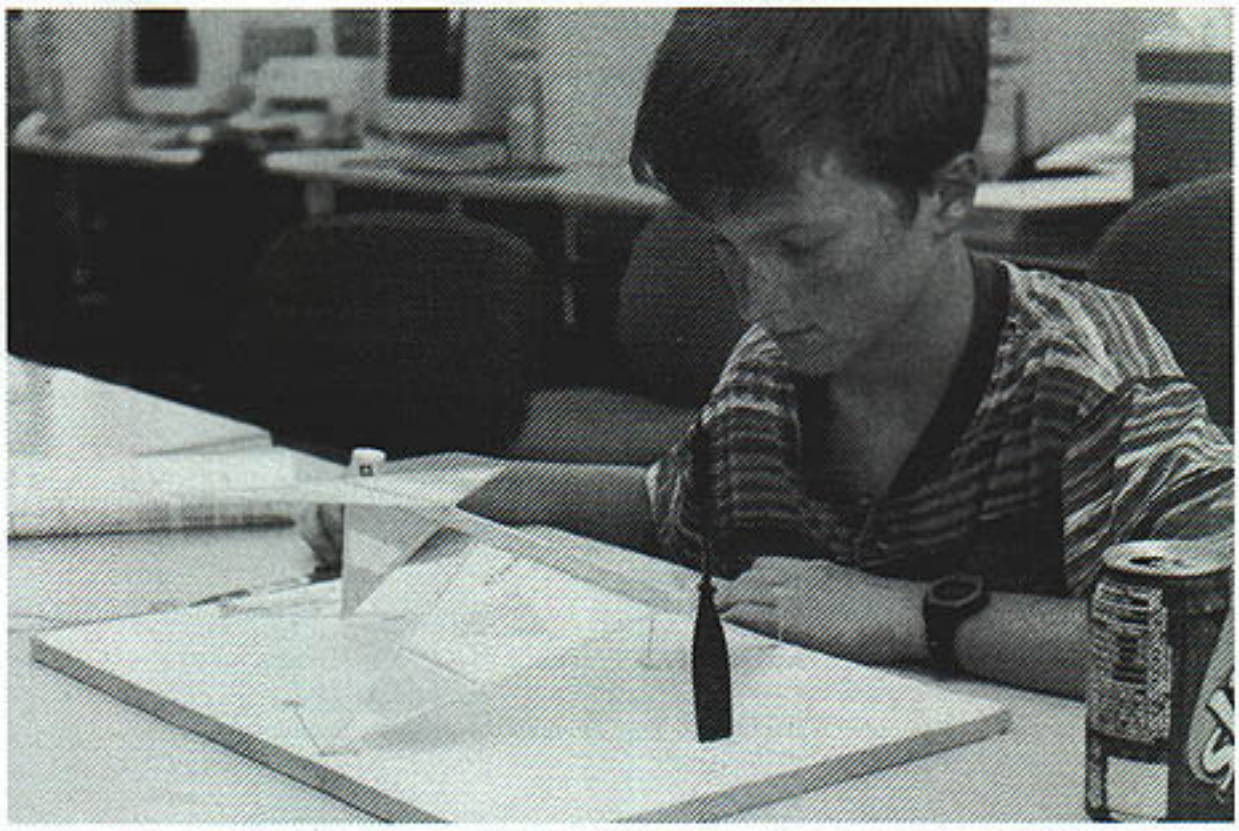
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Model Aviators' Academy

■ **Chuck Jennings**



Club president Ron Burn helps a young "cadet" with construction of a Delta Dart on the first morning of the Model Aviators' Academy.



Nathaniel anxiously waits for the glue to dry on his Delta Dart. His model later flew onto the roof the Engineering East Building on the Cal Poly-SLO campus.

Every weekend and holiday for nearly 20 years, SLO FLYERS, Inc. enjoyed the use of a beautiful, smooth 110 x 600-foot asphalt runway on Camp San Luis Obispo of the California National Guard. It was a beginner's paradise. Modelers came from miles away to enjoy a facility that was ideal for a new model or for that detailed Scale beauty that deserved the very best.

Our annual Scale fly-ins typically attracted an impressive number of advanced entries, because we offered a big, flat, safe facility in the California climate. A modeler's Camelot on the West Coast!

But suddenly, without warning, in January 1992 the National Guard denied our access and converted the decommissioned fixed-wing runway to an active helicopter pad. Our repeated appeals for shared usage went unanswered.

Our members plunged into despair and disbelief. Membership dropped from more than 100 to less than 40 in the first year.

For the next five years, the club struggled to maintain enough enthusiasm and membership to remain a viable organization, with only one goal: find another site.

Although our active membership plummeted to less than 20 loyal souls, we desperately considered the possibility of purchasing our own land. We went so far as to run ads in local newspapers and to consult with several real estate agents who specialized in undeveloped acreage. We studied land-survey maps and researched county use permits. But with our annual dues at $20 per member and with pricey central California real estate, we soon abandoned the notion of ownership.

We turned to county and state government. The Department of Parks and Recreation seemed a reasonable avenue, but we soon found ourselves in a quagmire of long-range government planning and a complex political bureaucracy.

More importantly, five years of struggling homelessness and endless hours of negotiations with all sorts of municipal

Photos by the author Graphic Design by Jill Ann Cavanaugh



Model Aviators with ½A CL models on the Cal Poly women's softball field. Horizon Hobby, Inc. donated engines.

and private entities left us with a poignant realization:

All the years we were blissfully and naively privileged with the use of the National Guard's facility, *we had never cultivated a positive community image.* In 20 years we had built no community merit. We were thought of as "those big boys with expensive radio-controlled toys."

A local paper ran a full-page story with an impressive photograph, but the writer focused on the expense of the models and how often they crashed. The article generated no support; it may have created more destructive publicity than good.

Our search for sympathetic ears became a lesson in the value of community service. We began to shift our self-image and we broadened our focus.

As professors at Cal Poly State University in San Luis Obispo, colleague Bob van't Riet and I examined nearly all of the university's 5,000 acres of agricultural land in search of a suitable site for what we initially called a "model testing flight range." We outlined a plan to mentor the students in the Aeronautical Engineering program.

After seemingly endless hours of tedious negotiations and after identifying at least a dozen possible locations, the university granted SLO FLYERS, Inc., in partnership with the Aeronautical



Bob van't Riet prepares RC trainer for buddy box flights with cadets as Ron Burns gives a lesson on safety at the Educational Flight Range.

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Engineering Department, a four-acre site to develop an "Educational Flight Range."

SLO FLYERS, Inc. agreed to raise the funds, design and construct the facility, and serve as mentors to the Aeronautical Engineering students. We raised more than $40,000 and the facility was opened in June of 1998. It may well be one of the best model flight facilities in California.

Success! End of Story! Right?

We hope not.

The arduous, frustrating process of searching and begging for community support for a home for our club's activities awakened a new awareness in our membership. It became clear that for our long-term survival and our sense of self-worth, we needed to build a significant community service mission into our self-image.

The partnership with the Aeronautical Engineering program at Cal Poly became the initial cornerstone for a commitment to community education, not only of college-age youth but all the youth of our community.

A second cornerstone for this commitment came from the Academy of Model Aeronautics. In late 1997, as part of our fund-raising efforts toward construction of the Educational Flight Range, we contacted our District X Vice President, Rich Hanson. We discussed our need for financial assistance in building a facility and also shared our renewed commitment to community service through supporting educational programs.

Rich suggested that we look into AMA's Youth Aeromodeling Encampment Program as a prototype for a program we might put together on the West Coast. By this time we were involved as classroom mentors in the Big Brothers/Big Sisters program of San Luis Obispo County. The Youth Aeromodeling Encampment Program seemed to be a logical progression of our educational service goals.

In January 1998, Rich Hanson presented a proposal to AMA's Executive Council for a $10,000 matching grant in support of the construction of the Educational Flight Range, and in support of the opportunity to establish a

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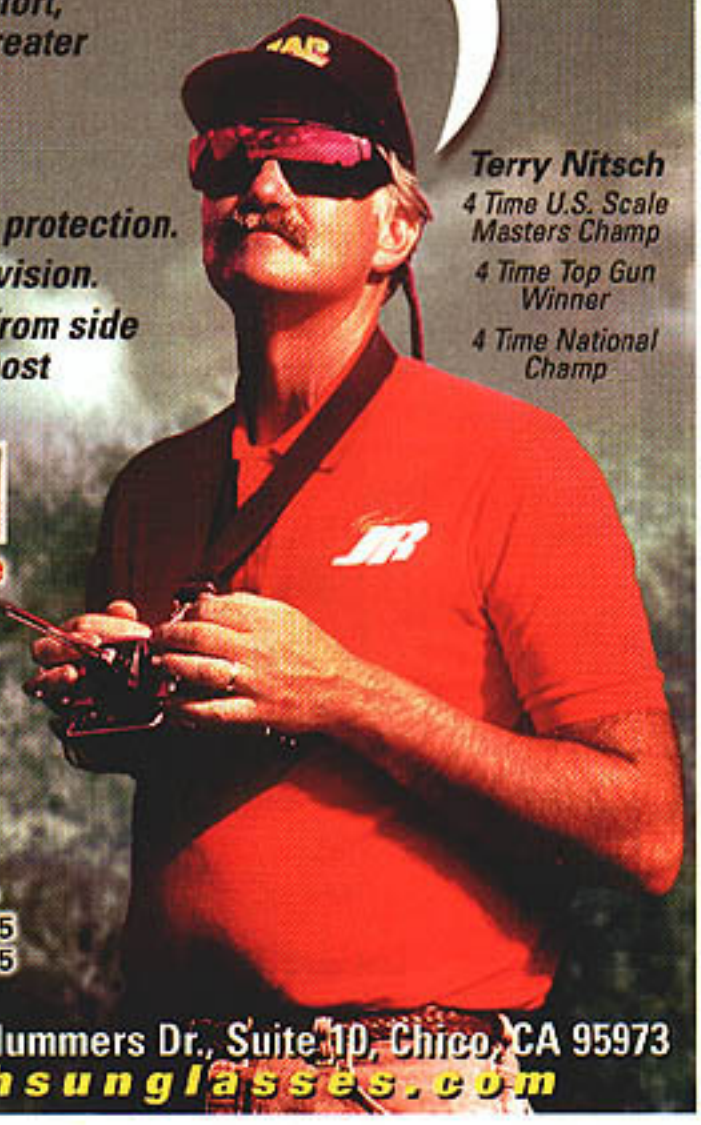
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West Coast site for the Youth Aeromodeling Encampment Program. The following February the AMA Executive Council awarded a $10,000 matching grant to SLO FLYERS, Inc.

After the Educational Flight Range was constructed and in service in July 1998, it was time to turn our attention toward building a youth education program. A committee of a half-dozen SLO FLYERS members began to meet on a regular basis to organize the first phase of a youth modeling academy program, planned to be offered during the summer of 1999.

The prototype for the Youth Aeromodeling Encampment Program seemed quite ambitious for our first year's program. The YAEP prototype called for the recruitment of kids from all over the country to a weeklong program that would require arrangements for transportation, housing, and around-the-clock supervision.

Not counting our experience as Big Brothers, only two of us on the committee had teaching experience, and that was limited to college-age youths. The prospect of taking full responsibility for 20 energetic youths away from their homes and their parents in a 24-hours-a-day, weeklong encampment seemed to be a terrifying challenge.

For our first effort, we needed a startup program that assured a great chance of success. With experience, we could confidently expand into the challenge of a more-ambitious program.

By January 1999, we had developed a fairly clear definition for what we thought

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1/16 x 3/16	.11	.15
1/16 x 1/4	.12	.15
1/16 x 3/8	.13	.16
1/16 x 1/2	.17	.21
1/16 x 3/4	.22	.29

3/32 INCH	36"	48"
3/32 x 3/32	.11	.12
3/32 x 1/8	.12	.14
3/32 x 3/16	.13	.16
3/32 x 1/4	.14	.18
3/32 x 3/8	.15	.19
3/32 x 1/2	.19	.24
3/32 x 3/4	.26	.32

1/8 INCH	36"	48"
1/8 x 1/8	.11	.13
1/8 x 3/16	.13	.18
1/8 x 1/4	.14	.21
1/8 x 3/8	.15	.23
1/8 x 1/2	.21	.27
1/8 x 3/4	.28	.36

3/16 INCH	36"	48"
3/16 x 3/16	.14	.23
3/16 x 1/4	.18	.27
3/16 x 3/8	.21	.29
3/16 x 1/2	.24	.36
3/16 x 3/4	.30	.45

1/4 INCH	36"	48"
1/4 x 1/4	.22	.30
1/4 x 3/8	.27	.33
1/4 x 1/2	.29	.41
1/4 x 5/8	.37	.50
1/4 x 3/4	.42	.58

5/16 INCH	36"	48"
5/16 x 5/16	.27	.35
5/16 x 3/8	.31	.39
5/16 x 1/2	.38	.48
5/16 x 3/4	.46	.62

3/8 INCH	36"	48"
3/8 x 3/8	.36	.45
3/8 x 1/2	.40	.57
3/8 x 5/8	.47	.59
3/8 x 3/4	.53	.68

1/2 INCH	36"	48"
1/2 x 1/2	.49	.64
1/2 x 5/8	.57	.76
1/2 x 3/4	.60	.82

5/8 INCH	36"	48"
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3/32 x 1	.31	.42
1/8 x 1	.35	.46
3/16 x 1	.38	.59
1/4 x 1	.52	.78
3/8 x 1	.67	.86
1/2 x 1	.76	1.04

2 INCH	36"	48"
1/32 x 2	.42	.58
1/16 x 2	.38	.50
3/32 x 2	.46	.61
1/8 x 2	.49	.65
3/16 x 2	.60	.74
1/4 x 2	.68	.90
3/8 x 2	.86	1.19
1/2 x 2	1.10	1.43

3 INCH	36"	48"
1/32 x 3	.49	.60
1/16 x 3	.44	.60
3/32 x 3	.52	.67
1/8 x 3	.63	.84
3/16 x 3	.76	1.03
1/4 x 3	.94	1.30
5/16 x 3	1.09	1.52
3/8 x 3	1.15	1.70
1/2 x 3	1.50	2.05

4 INCH	36"	48"
1/32 x 4	.78	1.06
1/16 x 4	.68	.92
3/32 x 4	.82	1.14
1/8 x 4	.93	1.34
3/16 x 4	1.09	1.56
1/4 x 4	1.52	1.79
3/8 x 4	2.10	2.85
1/2 x 4	2.85	3.36

TRAILING EDGES

	36"	48"
1/8 x 1/2	.29	.37
3/16 x 3/4	.35	.47
1/4 x 1	.39	.64
5/16 x 1-1/4	.48	.71
3/8 x 1-1/2	.56	.85
1/2 x 2	.90	—
	1.60	—

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1/4 x 2	.80
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5/16 x 1-1/2	.75
5/16 x 2	.86
3/8 x 1-1/2	.83
3/8 x 2	.95
3/8 x 2-1/2	1.06
1/2 x 1-1/2	.95
1/2 x 2	1.06

36" TRIANGLES

1/4 x 1/4 (nominal)	.29
3/8 x 3/8 (nom.)	.33
1/2 x 1/2 (nom.)	.40
3/4 x 3/4 (nom.)	.54
1 x 1 (nom.)	.68

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3/8	3.00	4.35
1/2	5.10	7.95

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1 x 4	1.57	3.78	4.25
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2 x 4	2.85	5.30	7.15
3 x 3	3.30	7.50	8.65
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1/2 9 Ply	2.15	3.75	6.15	12.00	45.00 *
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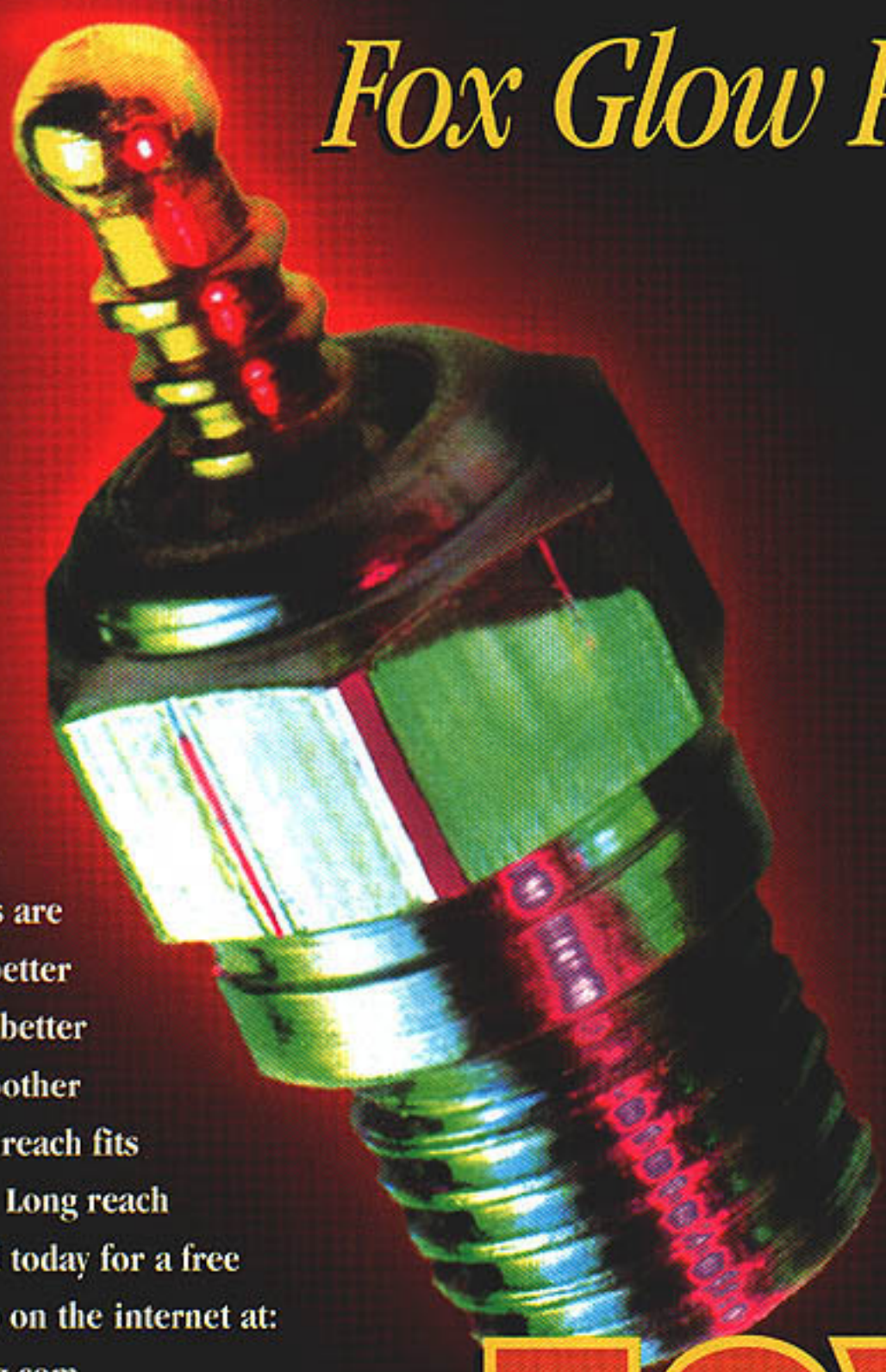
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1/16 x 3 (9)	1/16 x 4 (6)	1/8 x 3/16 (32)	3/16 x 1/4 (23)	1/4 x 3/8 (15)	3/8 x 1/2 (10)	1/2 x 3/4 (6)
3/32 x 3 (8)	3/32 x 4 (5)	1/8 x 1/4 (30)	3/16 x 3/8 (20)	1/4 x 1/2 (14)	3/8 x 3/4 (8)	
1/8 x 3 (6)	1/8 x 4 (4)	1/8 x 3/8 (28)	3/16 x 1/2 (17)	1/4 x 3/4 (10)		
3/16 x 3 (5)	3/16 x 4 (3)	1/8 x 1/2 (20)	3/16 x 3/4 (13)			
1/4 x 3 (4)	1/4 x 4 (3)	1/8 x 3/4 (15)				
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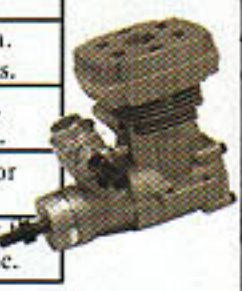
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of as our "shakedown cruise" and developed a plan for our first SLO FLYERS Model Aviators' Academy.

The plan called for a five-day day camp for kids of two age groups (ages 7-10 and 11-14). Enrollees had the option of a morning session for $75 or an all-day session for $100. Enrollment was limited to 18 youths, and required a letter of recommendation from a teacher and a letter of interest from the kids.

Fees included lunch for the all-day sessions, a Delta Dart kit, materials for a foam glider, materials and a Norvel .061 engine (donated by Horizon) for a ½A profile Control Line model, and a full day of Radio Control flight instruction on our trainers at the Educational Flight Range. As a finale, local Experimental Aircraft Association officer Carl Daughters arranged for a day of full-scale flight through the San Luis Obispo chapter of the EAA Young Eagles Program.

We mailed recruitment letters with a packet of application materials to every elementary and middle school in San Luis Obispo County. We received several applications as a result of this effort, but our most successful strategy came from two programs—one we had in place for the past three years.

The city of San Luis Obispo is famous for its downtown Thursday night Farmers' Market. Thousands of county youths and adults jam into five city blocks to buy produce, eat beans and ribs, listen to live music, and learn about community organizations at information booths.

SLO FLYERS president Ron Burn and members Ed Swain and Tom Bade faithfully set up a booth every second and fourth Thursday of the month. The booth has been a wonderful success in recruiting new members and in raising our community image.

One feature of our Farmer's Market program involves AMA's Delta Dart. We offer kids and parents a Delta Dart kit for $1.50, with the condition that if they come back to a subsequent Farmer's Market with a completed Delta Dart, SLO FLYERS, Inc. returns their money. This program provided the perfect conditions for recruiting kids for the Model Aviators' Academy; several of the applications came from this effort.

As a result of our visibility through our Farmers' Market program, we were asked by the San Luis Obispo County Library to conduct three after-school programs in aeronautical modeling. Two programs were held in the San Luis Obispo City Library and another was held in the library of the neighboring community of Atascadero. These programs were so successful that SLO FLYERS, Inc. has been asked to repeat the programs on a regular basis, and several of the library kids enrolled in our first summer academy.

Our first session of the SLO FLYERS Model Aviators Academy started at 9 a.m. Monday, August 2. Twenty boys enrolled, including two eight-year-olds, one nine-year-old, five 10 year-olds, six 11-year-olds, four 12-year-olds and two 13-year-olds.

From the beginning, the kids and the parents were enthusiastic and were in great anticipation of an exciting experience. Class sessions were held in the fixed-wing design lab of the Aeronautical Engineering Department at Cal Poly State University.

Ron Burn conducted the first session in basic principles of aeronautics; that resulted in the construction of Delta Darts. The test flights of 20 Delta Darts on the lawn of the Cal Poly University Library was a marvelous sight of wide-eyed joy and controlled chaos.

At the lunch break of the first day, one of the eight-year-olds who had signed up for the morning sessions begged his mother to enroll

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1999 "A" & "C" DV Offshore - Tom Avedisian
APBA Boat Nationals:
1999 Sport 40, Hydro, 7.5 OPC - Terry Dobson
1999 3.5 Outboard Hydro - Grady Tate
1999 7.5 Hydro - Allan Hoyle
1999 11 Hydro, Scale - Terry Allen
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him for the all-day sessions. In the end, all of the kids enrolled for the all-day sessions, and no one ever asked to go home before the end of the day (3:00 p.m). During the week, parents gave us continuous feedback of enthusiastic support of the program and told encouraging stories of their kids' excitement and eager participation.

The second day focused the "cadets" on their own design of a "foamy" constructed from white foam take-out containers. Ron Burn did a great job in developing an understanding of aerodynamic proportions and balance, and consequently all of the "foamies" flew remarkably well.

On Wednesday, the cadets built their ½A profile Control Line models.

On Thursday, the kids were given SLO FLYERS T-shirts and caps, and we went flying. The university allowed us the use of the women's softball field as a perfect venue for three Control Line circles.

The last day, Friday, was spent at the Educational Flight Range with each cadet taking at least two turns on the buddy box of three club RC trainers.

Saturday was on "optional" day at the San Luis Obispo Municipal Airport. "Optional" turned out to be "sensational," with 19 of the 20 cadets taking flights in full-scale aircraft piloted by EAA members.

Our first Model Aviators Academy far exceeded our expectations. A post-session evaluation form mailed to the cadets and their parents returned with unexpected praise and appreciation for the program.

Many of the kids begged for an "advanced" program to follow in the summer of 2000. Indeed, SLO FLYERS, Inc. is planning a two-week academy; the first week for beginners and a second week for returning "advanced cadets." If similar success follows in our second year, SLO FLYERS will be well on the way toward building not only an exciting and valuable youth program, but also a significant community service. MA

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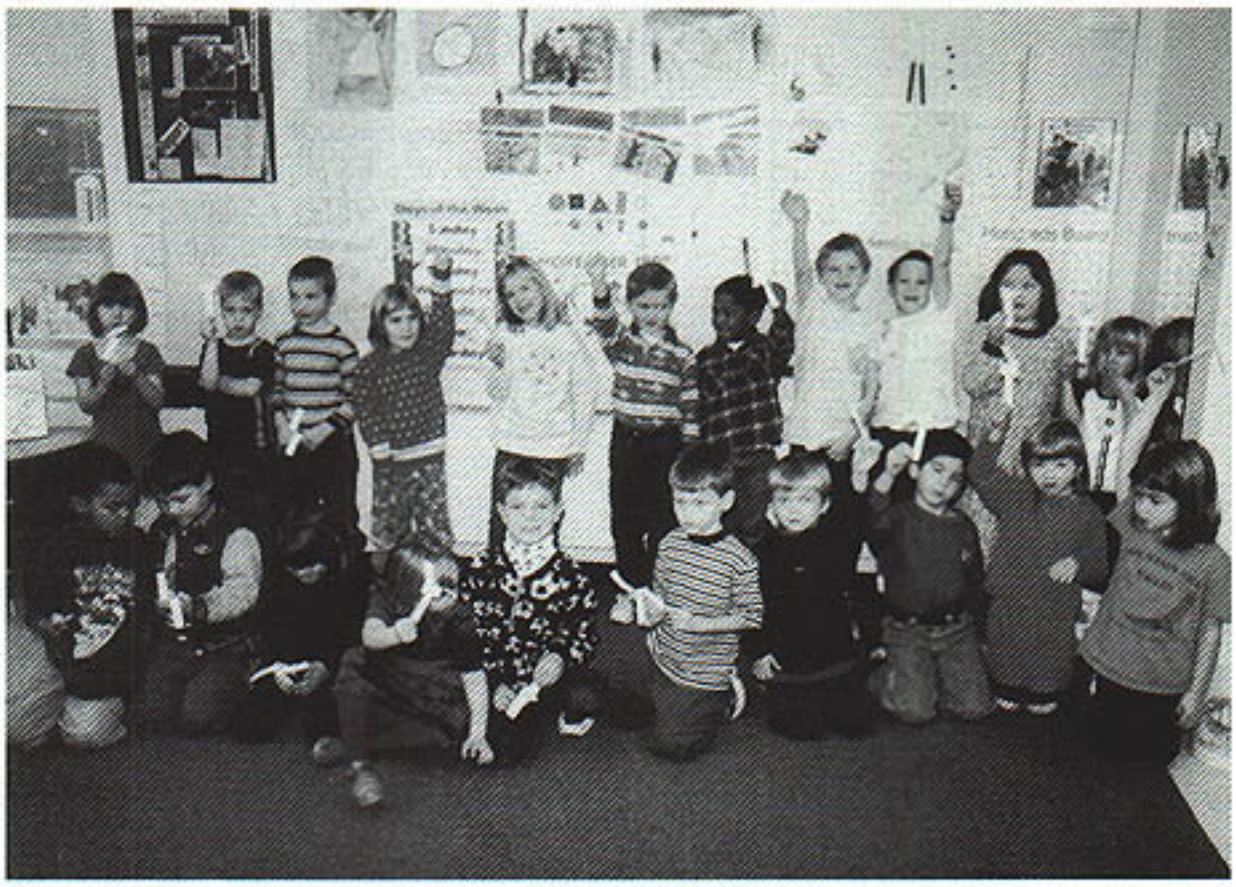
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THE GIFT OF FLIGHT

■ Vernon W. Smith



After the author spoke to his son's kindergarten class about flight, the students made paper helicopters. (The pattern is included in this article.)

There I stood, sweating bullets in front of a class of 21 kindergartners.

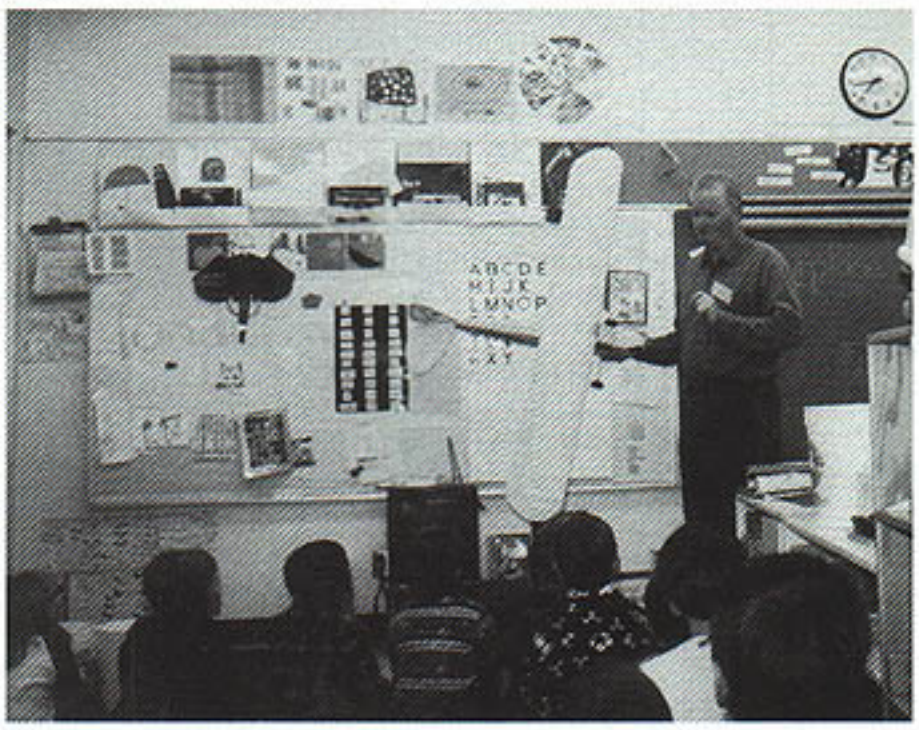
Sure, I had spoken publicly before, but this was different; I was passing on the gift of flight—a gift enriched for me by many people, such as my dad, from whom the bug for airplanes was inherited; by my brother Steve, who took me flying when I was a teenager; and by Jim Trump and Farrell Finley, who patiently taught me to fly Radio Control.

The gift of flight could not be repaid, but it could be passed on. So I wholeheartedly agreed when the opportunity arose to speak about aviation to my son's class; this was an opportunity to pass on that which means so much to me.

How would the gift be received?

Would these youngsters enthusiastically accept the offering, or stare out the window, longing for their computer games?

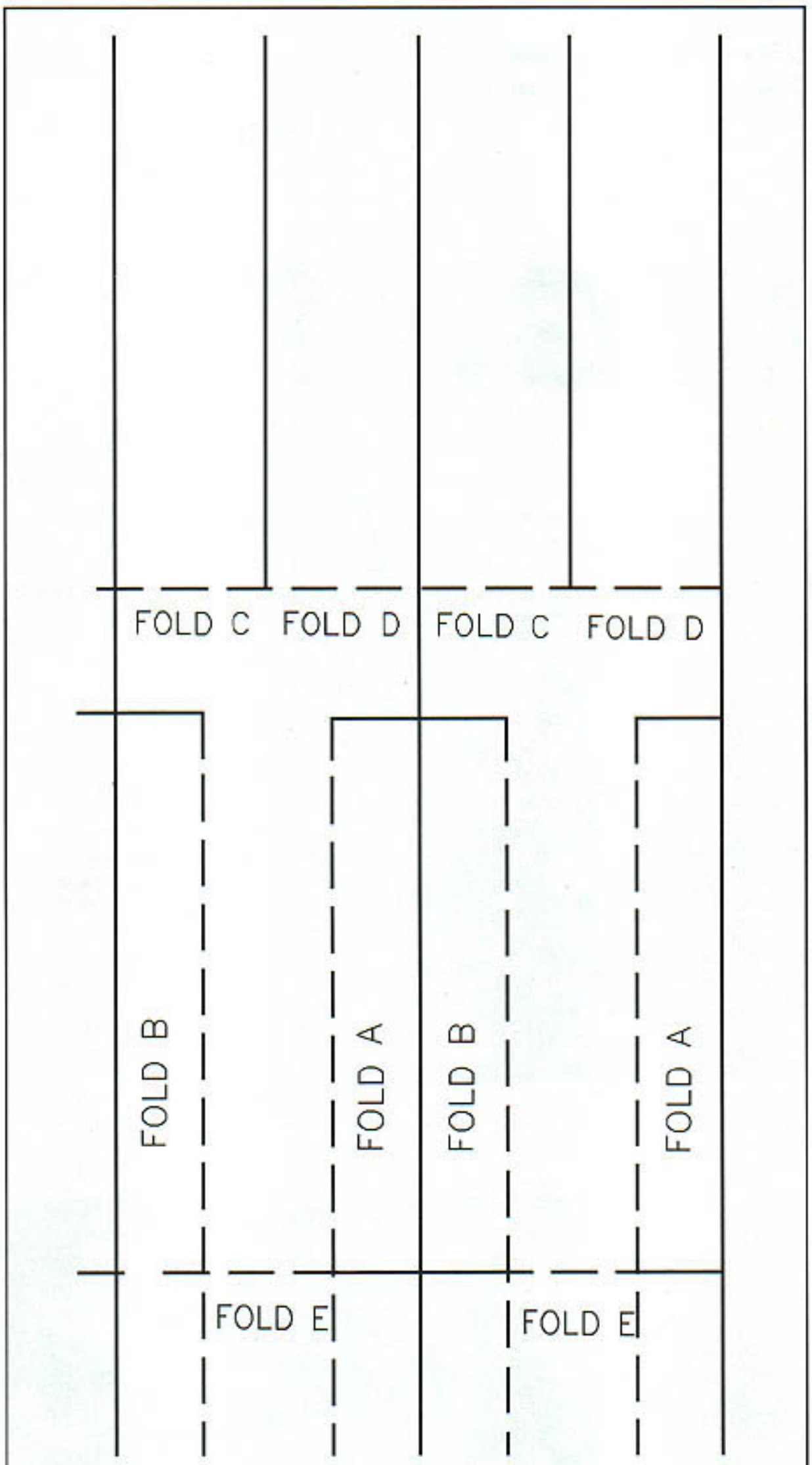
Has flying and aviation become so commonplace that it no longer sparks the imagination of the young?



The author in front of the 21-member class. His nervousness passed, and he was able to pass on "the gift of flight."



Children check out a model the author brought to class. He warns not to bring a prizewinner, in case of an accident.



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Fortunately, the answer is a resounding *no!*

As long as we are willing to share the gift given to us, flight will never be mundane.

Nothing is commonplace to kindergartners. There may be more distractions as they get older, but at this age, flying is a marvel that deserves exploration. After all, how does an airplane stay up with nothing visibly supporting it?

Preparing to talk to anyone—even about something you love—can seem an insurmountable hurdle. What do you say about flying to a roomful of kids?

The end of this article includes a brief outline that can be followed.

Be prepared! Kindergartners ask some amazing questions, and can grasp simplified explanations of matters, such as Sir Isaac Newton's third law of motion: To every action there is an equal and opposite reaction.

An important part of learning is being able to touch, feel, and hold.

Include an older model as part of the discussion—one that will be okay if a tiny finger pokes through the covering. This is *not* the place for an award-winning Scale model.

Arrange for a flight demonstration, if possible.

It was foggy the day of my presentation; however, the class made me promise to come back and fly when the weather improved.

Having an aviation-related activity will also help. The paper helicopter I used was a big hit. It can be copied and cut out beforehand, to expedite things.

Remember to bring extras; accidents do happen during construction.

I originally planned to use paper airplanes, but I didn't want to be known by the school staff as "the father who taught Mrs. Wickman's class how to fold paper airplanes during school."

Try to plan the discussion during the early part of the day; the kids will be more alert and attentive then.

The whole presentation should only take approximately an hour, not including the flight demonstration.

Doing the Math: There are approximately 150,000 AMA members. If 20% could give a presentation to a class of 25 students, that would work out to 750,000 students introduced to flying!

Now, let's say that 1 in 10 of those students got involved with model aviation at some time in his or her life—that's 75,000 new recruits.

If this was repeated yearly, the growth would be tremendous.

Aviation is alive and well, if you look at it this way!

So there you have it, but what will you do with it?

Don't miss the opportunity; share the gift of flight. MA

Vernon W. Smith
5047 Oak Hills Dr. N.W.
Albany OR 97321

A (Very) Brief History of Flight

I. *Introduction*

A. Question: How many of you have flown in an airplane? How many would like to fly in an airplane?

B. Do you realize that just 100 years ago, no one had flown in a powered airplane?

II. *Wright Brothers*

A. However, many people dreamed of flight.

B. Two of these people were Orville and Wilbur Wright.

1. The two brothers owned a bicycle shop in Dayton, Ohio.
2. They also experimented with gliders and small engines.

C. On December 14, 1903 at Kitty Hawk, North Carolina, they launched their Flyer!

1. Question: How long do you think their first flight lasted? (3½ seconds)
2. Three days later, they flew for nearly a full minute; the flight covered 853 feet (roughly the length of a football field).

III. *Aviation Makes Progress*

A. Many people back then said that flying had no real use in carrying passengers or freight.

B. But aircraft were making progress.

1. In 1911, the first transcontinental flight was made in the United States from New York to California.
2. Question: How long do you think it took? (49 days) How long do you think it takes today? (five to six hours)

IV. *Charles Lindbergh*

A. Question: Do any of you know who Charles Lindbergh was? (He is well-known for his nonstop solo flight from New York to Paris in 1927.)

B. It took 33 hours and 20 minutes to complete that flight. Today aboard the Concorde, it takes only four hours to cross the Atlantic!

V. *Conclusion*

A. This is a very brief history of flight. Are there any questions? (Give good basic answer, and don't be afraid to admit you may not know the answer.)

B. Now it's time for us to make our own history! (Do aviation activity.)

VI. *Show-and-Tell/Flight Demo*

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Keep your model on the straight-and-narrow with these tips

■ **Steve Springer**

Tricycle landing gear is by far the most popular type, especially on trainer aircraft. If you would like to improve the performance of your trike-gear airplane, try some of the following suggestions.

Consider replacing the nose gear that came with your airplane. Many of the nose gear included with kits and Almost Ready to Fly models (ARFs) have two inherent problems:

The small-diameter or low-quality wire allows excessive flexing. In a hard landing or on a rough field, this often results in a damaged prop.

The relationship of the nose wheel to the attachment point of the gear imparts a twisting motion when it strikes the ground or encounters a rock, which may result in servo damage. During a less-than-perfect landing, this twisting force can jerk the nose wheel sharply, collapsing the nose gear and snapping the prop.

The solution? A Fults Dual Strut nose gear.

The design includes two springs, with the wheel centered between them, solving the off-center geometry problem. Although the gear has a fair degree of flexibility to absorb landing loads, it rarely flexes enough to break a prop. Its rugged construction has withstood years of my most-punishing landings, outlasting several airplanes.

You don't want to spend $15-20 for better gear? In two flying sessions, I saved enough in broken props to cover the cost.

Improper nose gear caster is another problem.

Look at a bicycle and notice that the front forks slant forward. This is called positive caster and is the same feature that causes your car's tires to self-center after making a turn (see Figure 1). In addition to this natural centering tendency, this slightly forward position provides a larger range of travel before allowing the prop to contact the ground. Nose gear in this position also seems less prone to severe deflection.

Nose gear often has negative caster. On many airplanes the firewall slants downward, providing several degrees of engine downthrust. Since most nose gear mounts to the firewall or engine mount, the result is negative caster.

Worse yet, a few hard landings bend the gear further to the rear, compounding the problem. The result: on anything but a feather-soft landing on a glass-smooth runway, the nose gear, which is already angled backward, deflects even further, collapsing the nose and shattering the prop. This is discouraging and expensive, especially for beginners.

Ten degrees or so of positive caster is all it takes to solve this

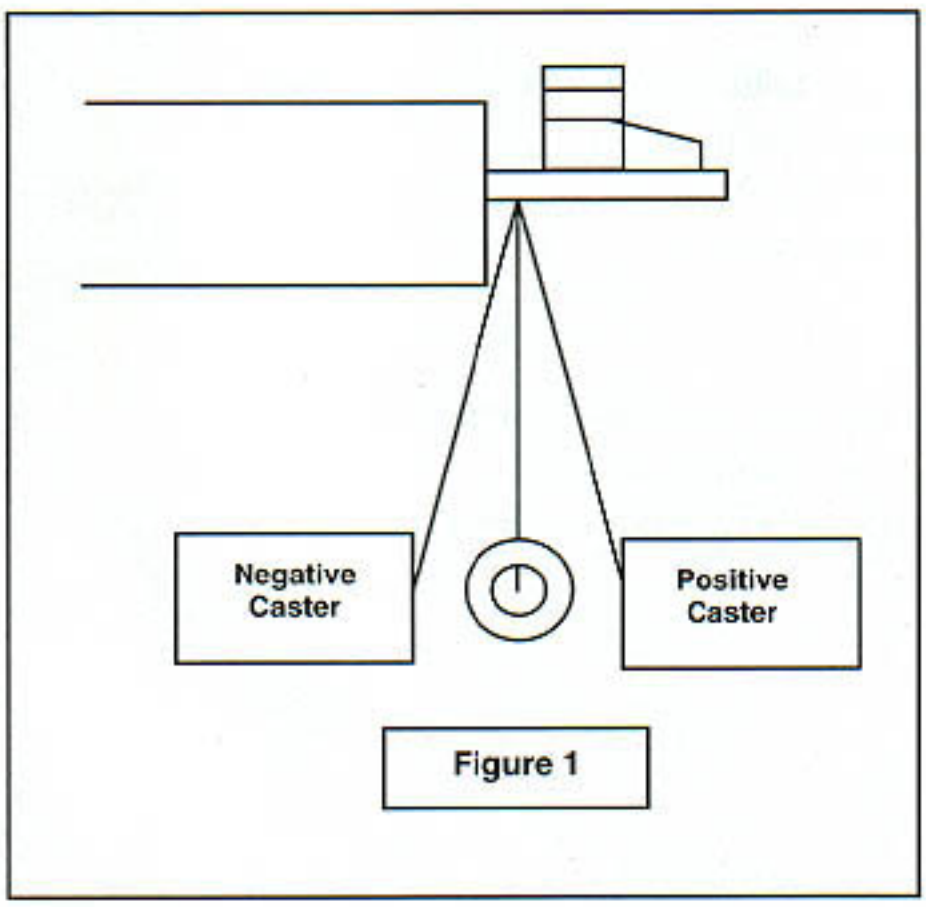


Figure 1

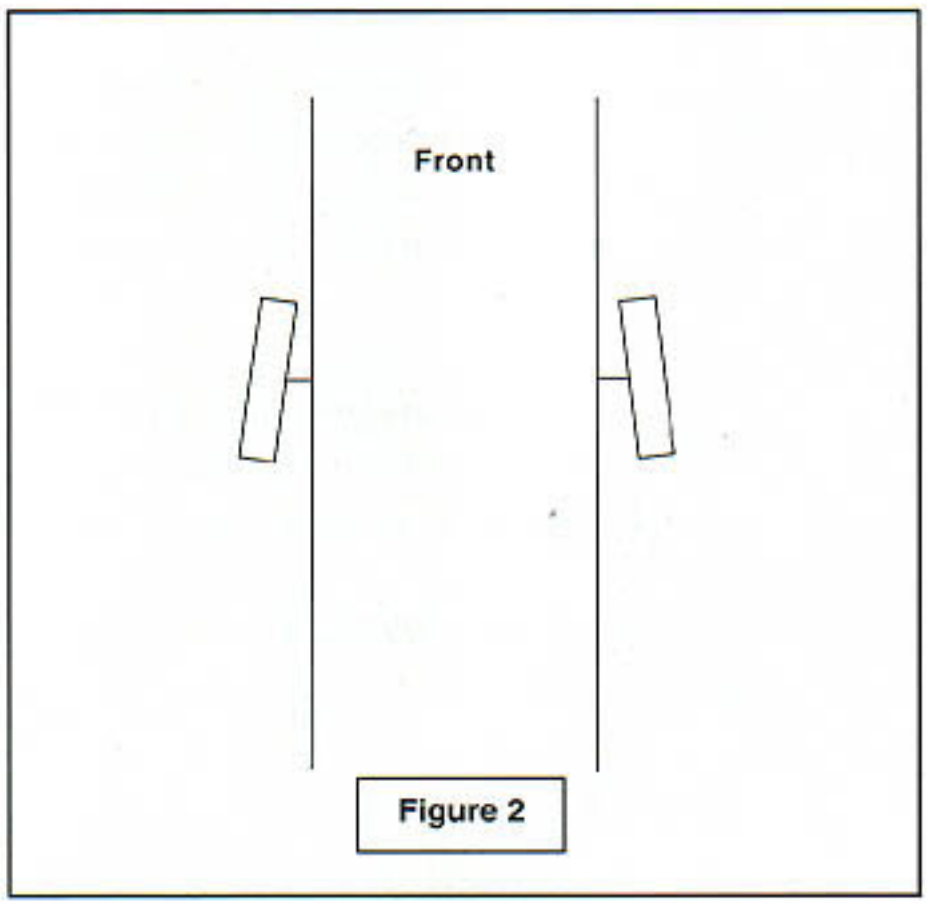


Figure 2

problem. The Fults gear bends easily to the required angle while installed on your airplane. Other gear may need to be removed and secured in a vise while bending.

For rough fields, Du-Bro and Great Planes make a device called Servo Saver that will help isolate your nose gear servo from all the pounding. This clever gadget contains small springs that absorb some of the jolts and shocks that would otherwise be transmitted to the servo. It's inexpensive and easy to install.

Does your airplane creep forward at idle? Try moving the wheel collar closer to the front wheel, creating just enough friction to prevent airplane movement at idle. A small section of fuel tubing inserted between the wheel collar and wheel produces a similar result. If you use the minimum drag possible, takeoff will be almost unaffected but landing roll will decrease considerably. Ground control will be significantly better.

Don't try this on the main gear; it is nearly impossible to create equal drag on both wheels. Fellow pilots will not appreciate your airplane veering toward the pit area on takeoff or landing.

For a straighter takeoff, reduce the amount of nose wheel movement. Many airplanes are set up with excess control throw, causing overcontrol when accelerating on takeoff. Connect the control rod to the outermost hole on the control horn that attaches to the nose gear. At the servo, use the innermost hole. It will seem that the nose wheel barely turns, but on most fields, you don't need a small turning radius. If you need more steering control, adjusting the servo attachment point is generally easier.

With the main gear, incorrect wing angle relative to the ground is one of the most-common problems. On most aircraft, the wing and horizontal stabilizer should be parallel to the ground.

How do you check for parallel? A Robart or Great Planes incidence meter is the best tool, but a small level will also do the trick. Check the building plans for the proper wing incidence, (usually 0°), set your airplane on a level surface, then place the level on the horizontal tail. If the bubble is in the center, you're done.

If the bubble is toward the nose (the most-common condition), gently bend the main gear toward the fuselage until you achieve level. If the bubble is toward the tail, gently pull the gear out. You could also raise or lower the nose gear, but lowering the nose gear may not be possible, and prop clearance is reduced.

Hard landings are the main cause of a nose-high condition. Beginners are especially hard on the main gear, but all of us have occasional firm landings. This creates a positive incidence effect of the wings relative to the ground, and causes two problems:

On takeoff, the aircraft will often lift off before you are ready, and before the airplane has sufficient flying speed.

On landing, the airplane is prone to bounce.

Two or three degrees of nose-down attitude will solve these problems. However, too much may cause your airplane to leap off the ground on takeoff as the main wing rotates from a negative to a positive angle of attack.

To improve takeoff control and ensure that the airplane tracks straight, toe-in the main gear about two degrees. This means that the front of each main wheel is turned slightly toward the fuselage as viewed from above (see Figure 2). This also adds a slight braking action, reducing movement at idle.

Music wire gear can be easily bent to achieve this toe-in. Small shims, to deflect the axles inward, may be necessary for aluminum gear. If your airplane hops down the runway, you added too much toe-in.

Never allow either wheel to become toed-out; this can cause the airplane to veer severely to one side.

When I learned to fly in 1982, my instructor insisted that I was an aircraft carrier pilot in a former life, since all of my landings were controlled (sometimes) crashes. By substituting small nylon bolts for the metal bolts that retained the main gear, I dramatically reduced the amount of damage caused by hard, fast landings. The gear simply broke free, resulting in only some scuffed covering and no structural damage.

Those are the best of the trike tricks I have learned through the years. Try them and see if you improve the performance of your airplane. If you have any questions or comments, let me know.

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1/4 x2	.68	.90
3/8 x2	.86	1.19
1/2 x2	1.10	1.43
1/32 x3	.43	.60
1/20 x3	.43	.60
1/16 x3	.44	.60
3/32 x3	.52	.67
1/8 x3	.63	.84
3/16 x3	.76	1.01
1/4 x3	.94	1.30
5/16 x3	1.09	1.52
3/8 x3	1.15	1.70
1/2 x3	1.50	2.05
3/4 x3	2.25	3.10
1/32 x4	.66	.92
1/20 x4	.66	.92
1/16 x4	.68	.92
3/32 x4	.82	1.14
1/8 x4	.96	1.34
3/16 x4	1.09	1.56
1/4 x4	1.52	1.79
5/16 x4	1.82	2.34
3/8 x4	2.10	2.85
1/2 x4	2.85	3.36
3/4 x4	3.50	4.71

BALSA SHEETS	30"	42"
1/32 x3	.36	.50
1/16 x3	.36	.50
3/32 x3	.43	.61
1/8 x3	.52	.73
3/16 x3	.62	.84
1/4 x3	.78	1.13
3/8 x3	1.05	1.48
1/2 x3	1.35	1.75
1/32 x4	.56	.79
1/16 x4	.56	.79
3/32 x4	.66	1.06
1/8 x4	.76	1.12
3/16 x4	.87	1.40
1/4 x4	1.06	1.62
3/8 x4	1.65	2.39
1/2 x4	2.49	3.15

BALSA SHEETS LIGHT (4-6 LB.)	36"	48"
1/32 x3	.78	1.19
1/20 x3	.78	1.19
1/16 x3	.78	1.19
3/32 x3	.93	1.44
1/8 x3	1.14	1.75
3/16 x3	1.32	2.02
1/4 x3	1.57	2.37
3/8 x3	1.88	3.07
1/2 x3	2.38	3.82
3/4 x3	3.75	5.19
1 x3	5.32	7.19
1/32 x4	1.23	1.88
1/20 x4	1.23	1.88
1/16 x4	1.23	1.88
3/32 x4	1.49	2.32
1/8 x4	1.89	2.62
3/16 x4	1.97	3.00
1/4 x4	2.37	3.32
3/8 x4	3.57	5.63
1/2 x4	4.02	6.00

ALL 4-6 LB. WOOD SUBJECT TO AVAILABILITY

WING SKINS	30"	36"
1/32 x 12	4.79	5.35
1/20 x 12	4.79	5.35
1/16 x 12	4.79	5.35
3/32 x 12	5.79	6.45

MATCHED SHEETS	42"	48"
3/32 x4	1.25	1.42
1/8 x 4	1.50	1.69
3/16 x4	1.64	1.89
1/4 x4	1.76	2.05

BALSA BLOCKS	6"	12"
1/2 x 3	.35	.65
3/4 x 3	.42	.84
1 x 2	.42	.69
1 x 3	.54	.95
1-1/2 x 3	.72	1.37
1 x 4	.68	1.25
2 x 2	.55	.99
2 x 3	.78	1.47
2 x 4	1.07	2.13
3 x 3	1.15	2.33
3 x 4	1.60	3.21

BALSA PLANKS	36"
1 x 1	1.10
1 x 2	1.90
1 x 3	2.85
1 x 4	3.75
1-1/2 x 3	4.05
1-1/2 x 4	5.30
2 x 2	2.90
2 x 3	4.20
2 x 4	6.30
3 x 3	6.85
3 x 4	8.88

ALL PRICES SUBJECT TO CHANGE WITHOUT NOTICE

BUNDLE DEALS	36"
(20) 1/16 x 3	7.99
(20) 1/16 x 4	12.35
(20) 3/32 x 3	9.70
(15) 3/32 x 4	11.50
(15) 1/8 x 3	8.75
(10) 1/8 x 4	8.75
(15) 3/16 x 3	10.50
(10) 3/16 x 4	10.00
(10) 1/4 x 3	8.75
(10) 1/4 x 4	14.00
(10) 3/8 x 3	10.50
(5) 3/8 x 4	9.50
(5) 1/2 x 3	6.95
(5) 1/2 x 4	13.00

BUNDLE DEALS	48"
(10) 1/16x4	9.00
(10) 3/32x4	10.75
(5) 1/8x4	6.25
(5) 3/16x4	7.35
(5) 1/4x4	8.35

TRIANGLES	36"
1/4 x 1/4	.29
3/8 x 3/8	.33
1/2 x 1/2	.40
3/4 x 3/4	.54
1 x 1	.69
1-1/2 x 1-1/2	1.31
2 x 2	2.25

TAPERED SHEETS	36"
1/4 x 2	.75
1/4 x 3	1.09
3/8 x 2	.90
3/8 x 3	1.31
1/2 x 3	1.54

TRAILING EDGES	36"
1/8 x 1/2	.29
3/16 x 3/4	.35
1/4 x 1	.39
5/16 x 1-1/14	.50
3/8 x 1-1/2	.56
1/2 x 2	.90

TAPERED AILERON & ELEVATOR STOCK	36"	48"
1/4 x 1	.57	.62
1/4 x 1-1/4	.65	.90
1/4 x 1-1/2	.74	1.05
1/4 x 2	.80	1.15
5/16 x 1-1/4	.74	1.05
5/16 x 1-1/2	.75	1.06
5/16 x 2	.86	1.20
3/8 x 1-1/4	.80	1.15
3/8 x 1-1/2	.83	1.16
3/8 x 2	.95	1.35
1/2 x 1-1/2	.95	1.40
1/2 x 2	1.06	1.50

ADD FOR SHAPED LEADING EDGE	.25	.30

BALSA STICKS MEDIUM TO HARD	36"	48"
1/16 SQ.	.10	*
1/16 x 1/8	.10	*
1/16 x 1/4	.12	*
1/16 x 3/8	.13	*
1/16 x 1/2	.17	*
3/32 SQ.	.11	*
3/32 x 1/4	.14	*
3/32 x 3/8	.15	*
3/32 x 1/2	.19	*
1/8 SQ.	.11	*
1/8 x 3/16	.13	*
1/8 x 1/4	.14	.21
1/8 x 3/8	.15	.23
1/8 x 1/2	.21	.27
1/8 x 3/4	.28	.36
1/8 x 1	.35	.45
3/16 SQ.	.14	.23
3/16 x 1/4	.16	.27
3/16 x 3/8	.21	.29
3/16 x 1/2	.24	.36
3/16 x 3/4	.30	.45
3/16 x 1	.38	.59
1/4 SQ.	.22	.30
1/4 x 3/8	.27	.33
1/4 x 1/2	.29	.41
1/4 x 3/4	.42	.58
1/4 x 1	.52	.78
5/16 SQ.	.27	.35
3/8 SQ.	.35	.45
3/8 x 1/2	.40	.57
3/8 x 3/4	.53	.68
3/8 x 1	.67	.86
1/2 SQ.	.49	.64
1/2 x 3/4	.60	.82
1/2 x 1	.70	1.04
5/8 SQ.	.60	.86
3/4 SQ.	.81	1.11
3/4 x 1	.99	1.32

* NOT AVAILABLE

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1/8 x6	2.50	3.95
1/8 x 12	3.95	7.50
1/4 x 12	4.95	9.50

LITE PLY	12"	24"	48"
1/8 x6	.95	1.25	2.40
1/8 x 12	1.25	2.40	4.75
1/4 x6	1.25	1.75	3.45
1/4 x 12	1.85	3.45	6.75

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3 PLY BIRCH	12"	24"	48"
1/64 x6	1.45	2.95	5.35
1/64 x 12	2.95	5.35	10.35
1/32 x6	.95	1.90	3.45
1/32 x 12	1.90	3.55	6.75
1/16 x6	.95	1.90	3.45
1/16 x 12	1.90	3.55	6.75
1/8 x6	.95	1.90	3.45
1/8 x 12	1.90	3.55	6.95

4 PLY BIRCH	12"	24"	48"
3/16 x6	1.00	2.00	3.45
3/16 x 12	2.00	3.45	6.85

5 PLY BIRCH	12"	24"	48"
3/32 x 6	1.40	2.75	5.25
3/32 x 12	2.75	5.25	10.20
1/8 x 6	1.50	2.95	5.85
1/8 x 12	2.95	5.75	11.20
1/4 x 6	1.25	2.50	3.80
1/4 x 12	2.30	3.80	7.35

7 PLY BIRCH	12"	24"	48"
3/8 x 6	1.50	2.85	5.25
3/8 x 12	2.85	5.50	10.00

9 PLY BIRCH	12"	24"	48"
1/2 x 6	2.15	3.75	6.15
1/2 x 12	3.75	6.15	12.00

BASSWOOD SHEETS	24"	36"	48"
1/32 x 3	.73	1.09	1.55
1/16 x 3	.81	1.22	1.71
3/32 x 3	.91	1.36	1.95
1/8 x 3	1.04	1.56	2.20
5/32 x 3	1.09	1.63	2.29
3/16 x 3	1.22	1.84	2.56
1/4 x 3	1.49	2.25	3.15
5/16 x 3	1.56	2.35	3.40
3/8 x 3	1.62	2.45	3.50
1/2 x 3	2.00	3.00	4.25
3/4 x 3	2.94	4.40	6.20
1 x 3	3.47	5.25	7.35
2 x 3	4.75	7.15	10.00

BASSWOOD	36"	48"
1/16 x 1/4	.24	.30
1/16 x 3/8	.31	.35
1/16 x 1/2	.35	.47
3/32 x 1/4	.25	.39
3/32 x 3/8	.30	.40
3/32 x 1/2	.42	.55
1/8 SQ.	.21	.29
1/8 x 3/16	.25	.32
1/8 x 1/4	.28	.36
1/8 x 3/8	.35	.46
1/8 x 1/2	.41	.55
1/8 x 3/4	.47	.63
1/8 x 1	.58	.77
3/16 x 1/4	.32	.42
3/16 x 3/8	.40	.53
3/16 x 1/2	.48	.64
3/16 x 3/4	.65	.88
3/16 x 1	.72	.95
1/4 SQ.	.45	.57
1/4 x 3/8	.53	.68
1/4 x 1/2	.61	.81
1/4 x 3/4	.83	1.10
1/4 x 1	.95	1.24
5/16 SQ.	.59	.80
3/8 SQ.	.64	.85
3/8 x 1/2	.75	.91
3/8 x 3/4	.85	1.06
3/8 x 1	1.04	1.25
1/2 SQ.	.85	1.05
1/2 x 3/4	.94	1.25
1/2 x 1	1.15	1.54
3/4 SQ.	1.30	1.75
3/4 x 1	1.45	1.95
1 x 1	1.79	2.40

HARD MAPLE	18"
1/4 x 1/4	.45
1/4 x 3/8	.50
1/4 x 1/2	.56
3/8 x 3/8	.50
3/8 x 1/2	.56
3/8 x 3/4	.65
3/8 x 1	.75
3/8 x 1-1/2	1.15
1/2 x 1/2	.75
1/2 x 3/4	.78
5/8 x 3/4	.85
3/4 x 3/4	.92

GROOVED L.G. MOUNTS 12"		
3/8 x 3/4	(1/8)	.50
3/8 x 3/4	(5/32)	.50
1/2 x 3/4	(3/16)	.55

SPRUCE STICKS	36"	48"
1/16 x 1/4	.24	.30
3/32 x 1/4	.25	.39
1/8 SQ.	.21	.29
1/8 x 1/4	.28	.36
1/8 x 3/8	.35	.46
1/8 x 1/2	.41	.55
1/8 x 3/4	.47	.63
3/16 SQ.	.28	.38
3/16 x 3/8	.40	.53
3/16 x 1/2	.48	.64
3/16 x 3/4	.65	.98
1/4 SQ.	.45	.57
1/4 x 3/8	.53	.69
1/4 x 1/2	.61	.81
1/4 x 3/4	.83	1.10
3/8 SQ.	.64	.85
3/8 x 1/2	.75	.91
1/2 SQ.	.85	1.05
1/2 x 3/4	.94	1.25

SPRUCE TRIANGLES	36"
3/8 x 3/8	.54
1/2 x 1/2	.75
3/4 x 3/4	.95

BIRCH DOWELS	36"
1/8	.16
3/16	.17
1/4	.20
5/16	.27
3/8	.37
1/2	.55
5/8	.75

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1 oz. Gap Filling	3.00
2 oz. Gap Filling	5.50
8 oz. Gap Filling	16.50
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1 oz. Extra Thick	3.30
2 oz. Extra Thick	6.00
8 oz. Extra Thick	18.00

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1 oz. Thin	7.85
2 oz. Thin	13.85
1/2 oz. Gap Filling	4.25
1 oz. Gap Filling	7.85
2 oz. Gap Filling	13.85

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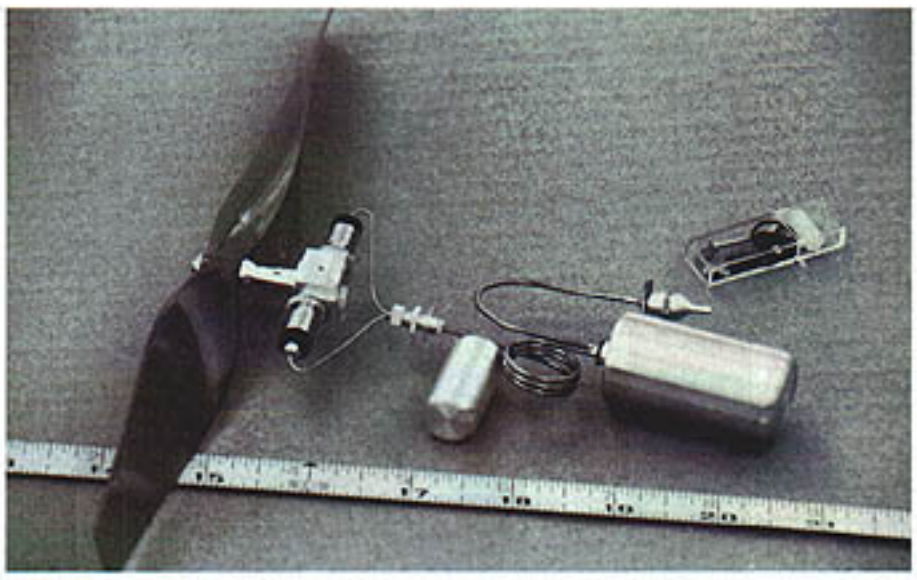
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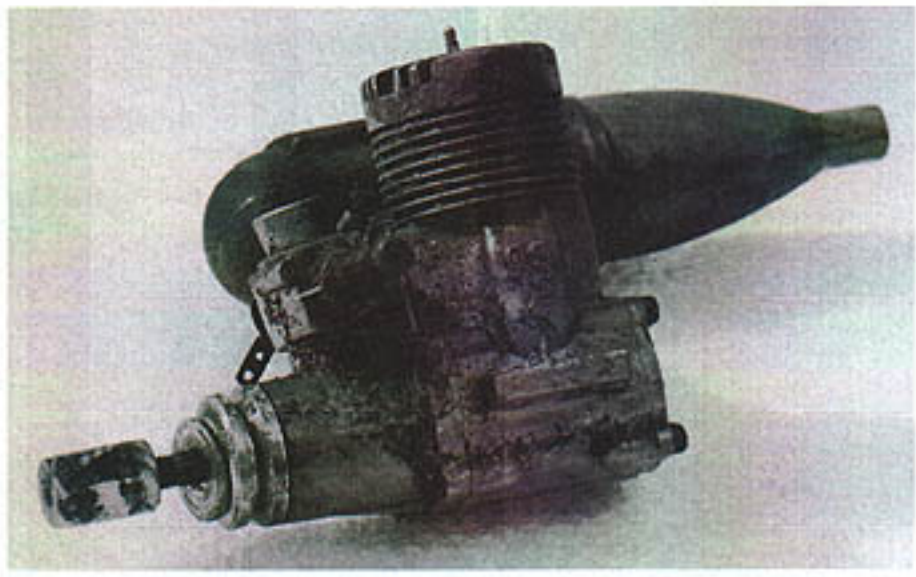
Joe Wagner

The Engine Shop

927 Pine Ave., Ozark AL 36360



The new Gasparin high-efficiency twin comes with a "spare parts pack" and features a tandem CO_2 tank.



This long-neglected O.S. .40 provided an ideal subject for testing Dave Gierke's new Demon-Clean™ Engine Cleaner.

A MAJOR breakthrough in CO_2 motors has been achieved by Stefan Gasparin of the Czech Republic.

Stefan was already noted for having made the world's smallest CO_2 motor. He also manufactures a fantastic variety of multicylinder CO_2 types, including five-, seven-, nine-, and 18-cylinder radials; five-, seven-, and nine-cylinder rotaries (akin to the engine type that powered Sopwith Camels and Fokker Triplanes in WW I) plus "flat fours," four-, six-, and eight-cylinder inlines; and even a V-12 !

Most of these jewel-like (and jewel-expensive) multicylinder power plants have been bought by collectors, who display them in showcases instead of using them to fly airplanes.

But the newest Gasparin products are designed specifically for flight performance. Two of these new motors are available so far: a single-cylinder (GMW73) and an opposed-cylinder twin (GMW73T). Both motors feature high-efficiency gas valves and long piston strokes (1.7 times the bore).

The Twin has an unusual tandem CO_2 tank arrangement and a through-the-firewall pressure connection. The Twin's pistons are connected to the same crank pin, so their power strokes occur 180° apart. This motor turns a seven-inch high-pitch propeller for more than six minutes at approximately 2,000 rpm. It's also capable of spinning a standard rubber-power-type P-30 prop (9½ inches in diameter) for nearly seven minutes at 1,250 rpm. Those are park-flier RC durations!

CO_2 motor operation is more subtle than it appears: the piston isn't really blown downward by the gas pressure stored in the tank. Instead, what powers the piston is the *expansion* of a strictly limited amount of pressurized gas, admitted into the cylinder when the moving piston reaches the top of its stroke.

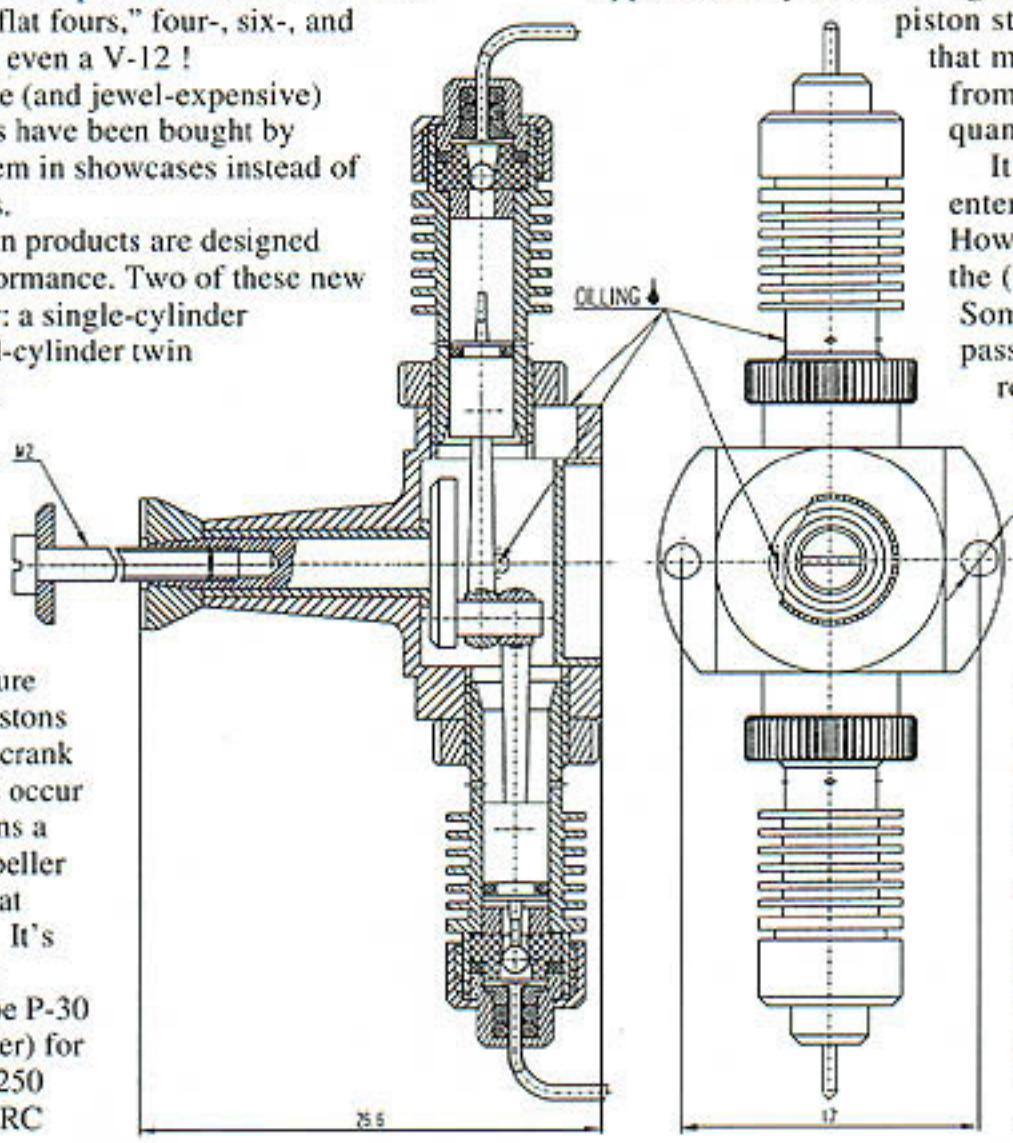
In Gasparin's new "73" designs, the "gas valve" is fully open for less than three milliseconds per stroke, admitting approximately half a milligram of gas. The valve closes as the piston starts its descent, and the power that moves the piston comes entirely from the expansion of that tiny quantity of CO_2.

It's quite true that when the CO_2 enters the cylinder, it's under pressure. However, that pressure is nowhere near the (nominal) 800 psi in the tank. Some pressure is lost from having to pass through small-diameter tubing to reach the cylinder. The gas pressure drops even more as it flows through the tight restriction of the piston-operated ball valve and into the cylinder head. There, at last, the gas begins producing useful output, by expanding and driving the piston down.

In that respect, a CO_2 motor works much like a glow engine. Its power comes from gas expansion pushing against a piston.

A glow engine works by "internal combustion." Its gas expansion results from heat developed by burning fuel. A CO_2 motor's gas expansion also requires heat to develop power—but that heat's obtained from the atmosphere itself.

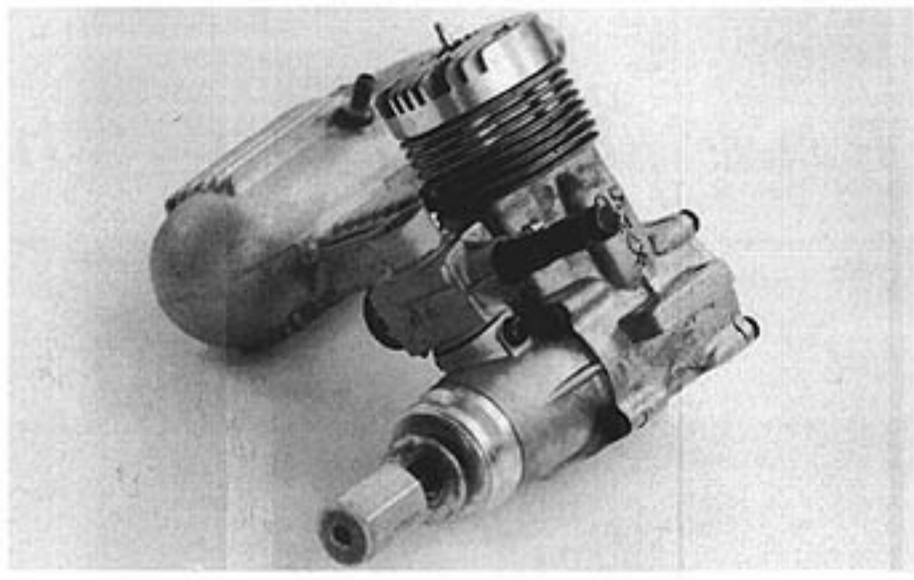
A glow engine has fins on its cylinder for dissipating excess heat into the passing airstream. A



Cross-section of Gasparin GMW73T. Very long stroke, valve actuator pins of pistons provide exceptionally long run time.



Illustrated instruction sheet must be followed for safety: Demon-Clean™ is extremely potent!



Restored O.S. .40. Every trace of grime and baked-on varnish came off with only an hour's work; no disassembly required!

CO_2 motor has fins on its cylinder to *gain* heat from the passing airstream. That's important, because as any compressed gas expands, it loses heat energy. That limits its ability to expand further, unless it can acquire heat energy from somewhere else to replace the expansion losses.

That's not a trivial consideration with model CO_2 motors, as demonstrated by their noticeable loss in power output when operated in humid weather. Frost accumulates on the cylinder fins, which interferes with warming by the airstream—and the motor's power decreases substantially.

One reason for the Gasparin GMW73T's double tank arrangement is to maximize the quantity of liquid CO_2 that can be loaded. CO_2 can remain in liquid form at "room temperature" if it's kept under enough pressure. (The "capsules" used to power pellet guns contain 12 grams of liquid CO_2, at approximately 800 psi.)

Liquid CO_2 is about 1,700 times denser than gaseous CO_2. That's why, for maximum running duration, it's best to fill a CO_2 motor's tank with as much liquid CO_2 as possible. But that's not easy.

During the filling operation, the first liquid CO_2 that enters the motor's tank instantly flashes into gas. It's the same situation as if you were pumping water into a red-hot steam boiler. As soon as fluid touches a surface that's much hotter than the liquid's boiling point (roughly -110°F for CO_2), it vaporizes. And that generates pressure.

Back pressure produced during CO_2 tank filling is what limits the amount of liquid CO_2 the tank can hold. When the pressure inside the tank equals that from the external supply, no more inflow can occur.

It's common for a CO_2-power flier to fill the model's tank, let the motor run while holding the airplane until the tank is empty, then quickly refill the tank. The chilling effect of theCO_2 expanding within the tank as the motor runs reduces its temperature considerably. Then when the new filling begins, less "boil-off" occurs, and the tank accepts more liquid. That produces longer flight time.

The tandem tank of the GMW73T twin improves the "liquid-accepting capacity" of the larger (15.5cc) tank by providing a receptacle for some of the boil-off gas. That makes loading the tank quicker and more convenient, because you can get good flight duration from each filling without needing to go through a prefreeze routine.

However, a loss in efficiency occurs. Tests have shown that the GMW73 Twin can hold approximately 20% more liquid CO_2 in a prechilled 15.5cc tank alone than in both tanks (totaling 18.5cc capacity) filled at room temperature. That means a longer, more-consistent power output is possible, at the cost of a lengthier and more- complicated refilling procedure.

GMW73 motors are being sold by the Southern California Blacksheep as a club fund-raising project. Contact club treasurer Roy Hanson (21410 Nashville St., Chatsworth CA 91311; Tel.: [213] 747-7514) for current prices and availability. Each motor is custom-assembled and has a serial number.

By the way, I've recently learned that Bob Davis of Davis Model Products (Box 141, Milford CT 06460) is again making CO_2 conversions of Cox .020 and .049 engines.

Another new product in the model engine line has just been released, after more than two years in development. It's Dave Gierke's Demon-Clean™ Engine Cleaner. Dave sent me a sample of Demon-Clean to test and comment on.

I had no dirty engines available; but with the help of Tom Anderson (Mammoth Spring AR) I acquired the second-grungiest model engine I've encountered. I thought when I first unwrapped this filthy, varnish-encrusted O.S. .40, "If Dave's Demon-Clean can remove all of *this* horrid crud, I'll be amazed."

I was amazed.

Just to make sure that the grunge on the old O.S. was truly baked-on and oxidized to the point of insolubility, I tried cleaning one side of the cylinder and head with a well-recommended conventional cleaner. That did remove a small amount of surface grime, but had no visible effect on the carbonized varnish or oxidized sludge.

Then I tried Demon-Clean. The stuff is a gel-type cleaner (the consistency of thick spaghetti sauce) and comes with a detailed and well-illustrated instruction sheet. I followed that exactly.

I didn't disassemble the engine at all. I merely plugged the openings with tightly-packed wads of paper towel, then brushed a thick coat of Demon-Clean over and into every nook and cranny. I waited 45 minutes; then rinsed the engine off with warm water, assisted with a stiff nylon toothbrush. Every trace of dirt and contamination vanished down the drain with the rinse water!

What amazed me most was the way all the baked-on varnish came off. That didn't dissolve; instead, it came apart in small fragments, like an old, brittle decal. The water and toothbrush swept those away effortlessly—even from areas where I never expected complete cleaning, such as the head fins and the "stack" connecting the muffler and the cylinder.

Demon-Clean is not inexpensive ($18.95 for an eight-ounce can). However, I feel that it's well worth its price. If I'd had to restore that badly-fouled O.S. without Demon-Clean, I would have needed to disassemble it; soak all its parts in solvent for hours; then scrub off the sludge and varnish from each component with a toothbrush and Ajax® cleanser. Counting disassembly and reassembly time, that would have been at least a two-day project.

Demon-Clean did a better job than I could have with old-fashioned methods—and it only took a little more than an hour from start to finish.

Contact: Dave Gierke Flying Models, Box 83, Bowmansville NY 14026. You can also obtain Dave's *2-Stroke Glow Engines For R/C Aircraft* book from the same source. **MA**

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CHEMICAL HAZARDS: One subject that has generated significant discussion among modelers is the use of chemicals, and protecting yourself from chemicals.

I am qualified to say this because the majority of mail I've received has been focused on chemical uses; and conversations I have with modelers at the field also often swing in this direction, and for good reason.

Chemicals play an important role in model-building, and most of us realize (usually after the fact) that we do a poor job of protecting ourselves from the hazards of chemicals.

In today's modeling environment, the list of chemicals we're exposed to seems endless. Glues, paints, resins, solvents, plasticisers, fibers, and fuels represent only a few.

To makes matters more-complex, each time we build a new type of model, we develop new substances or adapt existing substances to make creations stronger, lighter, and/or more flexible.

Most of the time we succeed in our efforts, and we pass this knowledge on to others.

Since many of us are also trying to make a buck, ideas and techniques are often quickly marketed. If the ideas and techniques are popular, the hobby grabs on fast and begins moving in a new direction.

Why is this an issue in this month's column?

I received an E-mail describing a glue that is currently favored for sheeting wings. I feel that the glue could be very hazardous if it is inappropriately used.

Elmer's® ProBond Polyurethane Glue is unique because it contains a product called Diphenylmethane 4,4'-Diisocyanate, which was previously used in polyurethane paint.

Why would I be concerned? Modeler Jim Zabel raises a few questions that warrant a response:

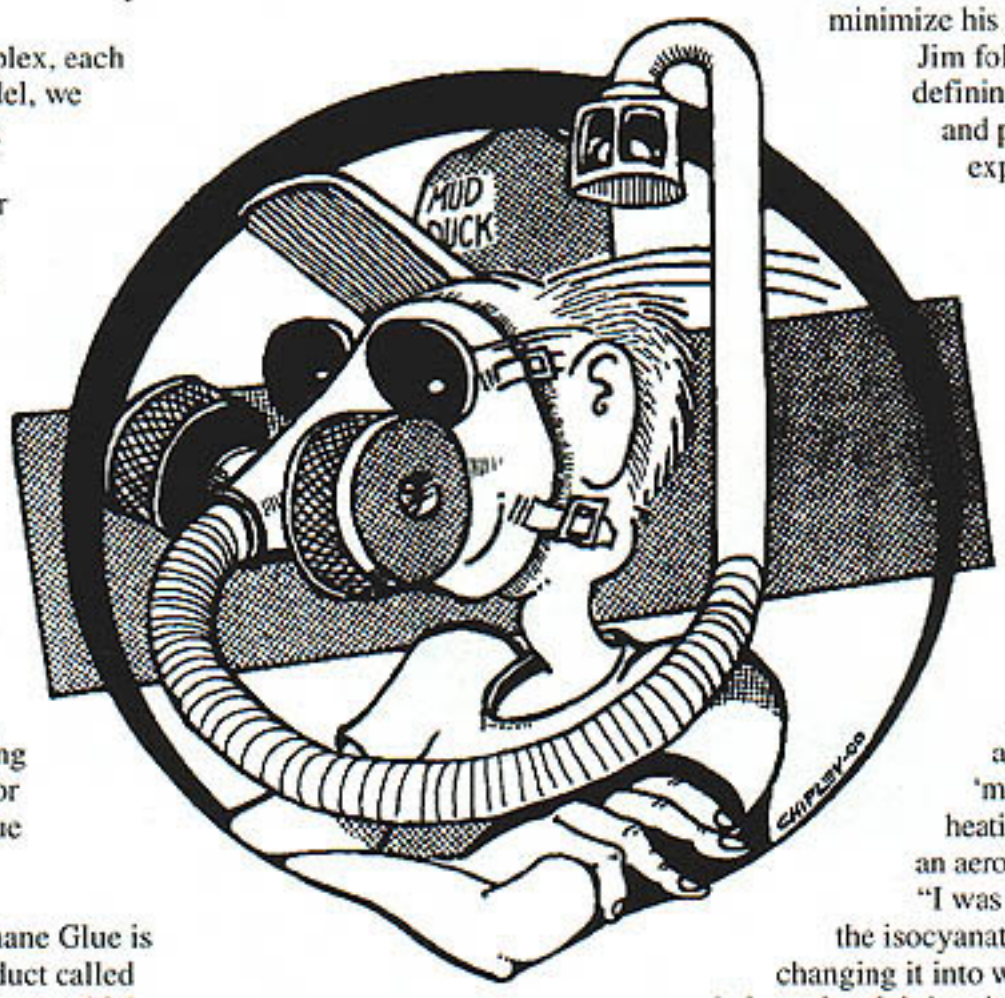
"Just how much of a health hazard does Elmer's® ProBond Polyurethane Glue really pose when used indoors in the average basement workshop?

"I just finished sheeting some cores with it for the first time and, though it doesn't have much of an odor, I did notice that it irritated my eyes and nose (a bit like CyA does) as I spread it onto the sheeting.

"The label does indicate that it is an eye irritant, and I tried to keep my face as far from the bench as possible to avoid breathing it as well, but it is impossible to avoid all vapors in an indoor shop. (One doesn't just open windows for ventilation in Minnesota this time of year either!)

"My concern is that the same label that accurately warns of eye irritation also warns of lung damage, both immediate and delayed!

"Frankly, I am a bit concerned about this. Any Material Safety/Occupational Health experts that can shed some light on this? I'd rather not find out a few years down the road that I caused myself permanent lung damage by using this stuff."



Jim asks some good questions, which can be answered through review of the appropriate Material Safety Data Sheet (MSDS).

The MSDS is a document that the federal government requires be provided by manufacturers of chemicals on request, to anyone who uses the product, so that he or she is made aware of what hazards may be encountered. The MSDS lists the hazards of the chemical and information about how to protect yourself.

Having read the precautions on the product label and becoming concerned, Jim did the right thing: he contacted the manufacturer for specific information, to help minimize his overall risk.

Jim followed up with a second letter, defining the hazard that concerned me and providing recommendations for exposure control:

"I did a little more research for those of you that might be interested.

"I spoke to two very cordial and knowledgeable individuals in the technical department at Elmer's® and they told me:

"1) Elmer's® claims that the product contains no 'pure' isocyanate and that the extreme warnings on the label are mostly legal 'boilerplating' aimed at hazards resulting from 'misuse' of the product, such as heating it or spraying it (thus creating an aerosol mist that could be inhaled.)

"I was told that Elmer's® 'pre-reacts' the isocyanate in the manufacturing process, changing it into what was described as a 'longer chain molecule' that does not pose the same risk of crystallization in the lungs as pure isocyanate does. It does not make it harmless, but it does reduce the hazard potential some.

"2) Elmer's® says that the vapor pressure of the product is sufficiently high to prevent any of the 'pre-reacted' isocyanate from becoming liberated into the air. They also stated that it is not carried in the fumes you may notice when using the product.

"The only way isocyanate can be liberated into the air is if it is heated, which we don't do when sheeting wings. The other possibility of injury from the isocyanate used is inhaling mist, resulting from spraying the product.

"3) I was told that the main risk from the product is actually 'sensitization,' resulting in allergic reactions in persons susceptible to chemical sensitization.

"These symptoms would be like that of a cold or respiratory flu. Vapors from the product can also aggravate existing asthmatic conditions in some individuals, just as CyA or other chemicals can.

"4) Elmer's® claims that the product is as safe to use as any

other household chemical, as long as adequate ventilation is used.

"5) The fumes that are noticed are classified as simple 'organic vapors.'

"For those worried about possible as-of-yet-unknown effects of breathing the fumes while using the product, Elmer's® states that a respirator with 'organic vapors' rated cartridges provides ample protection."

Diphenylmethane 4,4'-Diisocyanate has been known to cause severe allergic reactions in individuals exposed to it over time.

Because of its ability to cause sensitization, if a product you use contains Diisocyanate, follow MSDS precautions to the letter—unless you desire becoming the next person allergic to it.

Don't use this glue without personal protective equipment—such as gloves, an organic-vapor respirator, and goggles—and never heat, spray, or use the glue without ventilation.

I'm sure the glue's bonding properties and durability are excellent, but you should be extremely careful with it.

From the Mailbag: In past columns, I've written about the virtues of using a buddy box, computer simulator, or autopilot while learning to fly, and I've asked readers to let me know if using such equipment helped them learn.

Christine L. Demmons wrote to tell of her experiences and successes:

"The article you wrote in the March 2000 issue: I would like to give you my input.

"I am a student and have learned with the buddy box and the computer simulator. The autopilot I have never heard of. My club, The Salem Barnstormers, uses only the buddy box system, and I think it is the only way to learn.

"With the buddy system, you get into trouble, and the instructor can rescue the airplane instead of getting out a trash bag. I have seen the method of passing off the controller, and it makes me cringe when I see it. You have a split-second to make a decision, and you are passing a controller in that second.

"I saw an airplane go out of control once because of a controller passing, and I knew then my club was right using the buddy box system.

"The simulators are an incredible tool. After about my third flight, I was ready to throw the towel in. I am a quick learner, and not catching on made me just a little frustrated. My husband bought the Radio Control (RC) Great Planes® simulator, and for a week I practiced.

"Next time I flew, my instructor knew something had changed. I explained the simulator and he started me with homework on it. This winter he has me practicing my landings, and maybe in the spring I will be soloing.

"We live in New Hampshire and it can be a long winter. My husband and I will watch the snow fall as we fly our simulator. Worse *does* comes to worse in New England, and the simulator is the closest tool you will find off the field.

"Thanks for listening to my input.

"Yes, I am a girl and I love to fly!"

Congratulations Christine, and thanks for the input. Enjoy the skies! You'll be sharp as a tack this spring, and you'll enjoy the learning experience that much more.

That's all for this month. Happy skies! *MA*

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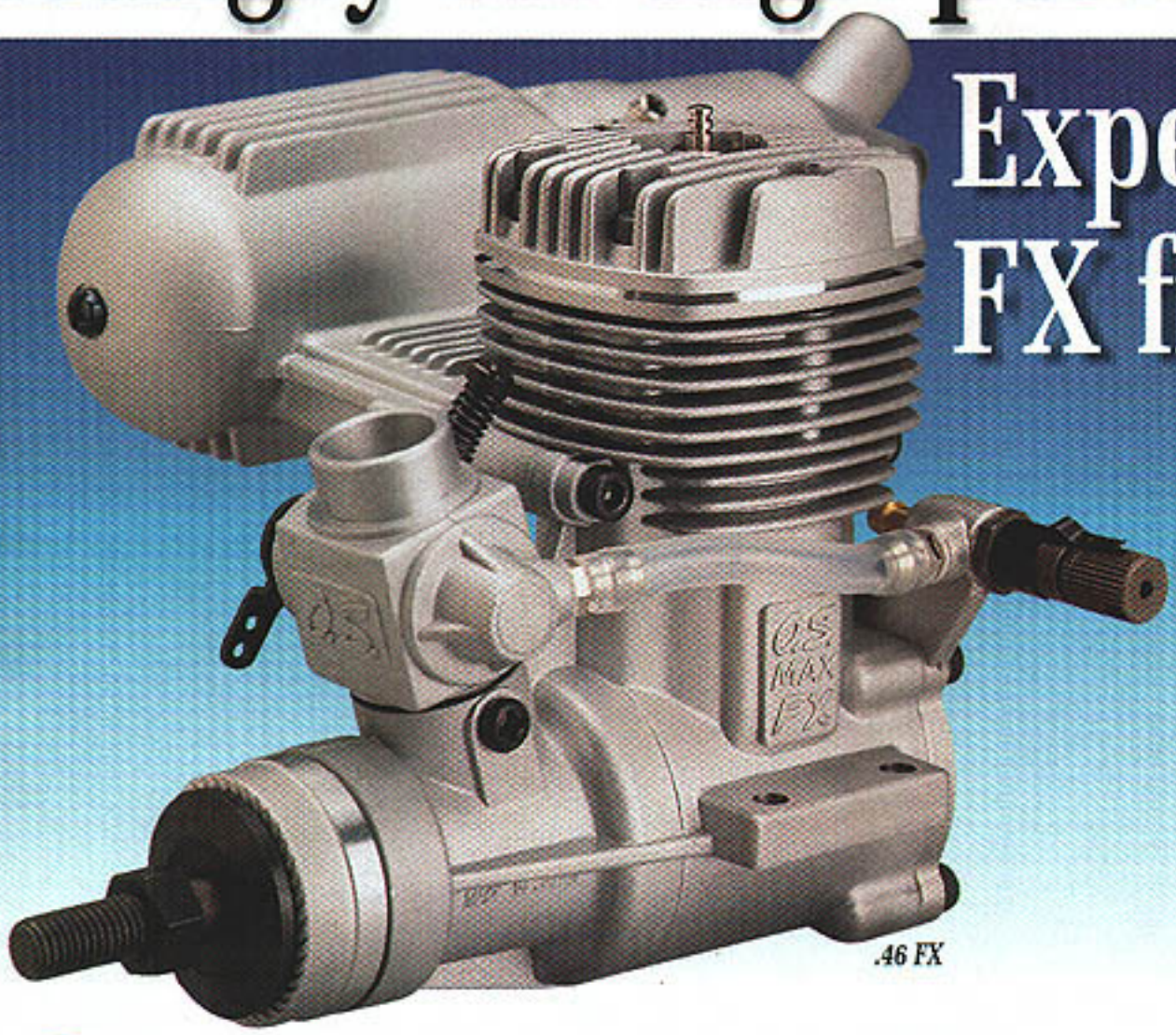
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THANKS 60th ANNIVERSARY

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Power Plants: For fun, let's take a look at the chicken-and-egg relationship between the development of power plants and full-scale and model aircraft.

Throughout the history of flight, development of more-powerful, lighter, or more-reliable engines has been followed by better airplanes. That same rule of thumb applies to model aircraft.

By reading research, trial-and-error, and the use of a primitive wind tunnel, the Wright brothers designed successful manned gliders.

However, they were not able to convert those gliders into aircraft capable of powered flight—until they invented an internal-combustion engine of sufficient reliability and power relative to weight.

I started to write "the aircraft followed the engine," until it occurred to me that the Wright Flyer was a pusher. Anyhow, you see where I'm coming from.

Those who have had the opportunity to closely examine the Wright engine are impressed by its primitive simplicity and the quality of workmanship. The drive mechanism between the engine and the propellers clearly reveals the Wrights' business background in bicycles.

The early designs of Taylor, Piper, American Eaglet, Rearwin, Aeronca, and many other light airplanes were adequate, but not commercially viable because the available power plants were expensive and unreliable.

These airplanes were not marketable until the horizontally-opposed multicylinder Continental, Lycoming, and Franklin engines were introduced, and light airplanes were designed to match them. The engines made the airplanes practical.

The "70" series of World War II fighters were designed around engines that were still in the development stages, such as the Continental X-24 cylinder, etc. When these power plants didn't work out, the designs never went farther than prototypes.

The Bell P-59—America's first jet fighter—was designed around the parameters of the first US license-built British jet engines, which could not be coaxed into producing the "advertised" power output. Therefore, the P-59 was an underpowered, overweight dog.

When better jet engines were developed, the P-59 was quickly replaced by the P-80/T-33, which became a wonderful airplane—not because of a vastly-improved design, but because of much better engines.

The P-59 might have become successful if it had been engineered to allow its engines to be changed to the newer power plants, as was done with the Me 262, etc.

The same generalizations can be made about the development of model engines.

In 1930, Bill Brown developed a small gasoline engine for use in model aircraft. By 1932, he had evolved it into a practical .60 cubic-inch unit that could be manufactured for sale.

The modeling world has not been the same since.

Maxwell Bassett, a close neighbor of Bill's, developed flyable models to match the engines. Maxwell flew stick and cabin models in the Rubber events at the 1932 and 1933 Nationals. He swept the rubber-power events those years, and the rules were hastily changed.

Maxwell's models were the basis for the Miss Philadelphia, kitted by Scientific. To match the power-to-weight ratio of Bill's engines, they were eight-foot-span models of rather robust construction.

As the years went by, improved spark-ignition engines were developed and sold. As the engines' power and size changed, models were developed to match them. In a 10-year period, Free



Race, test pilot Tony Le Vier restored 1928 Velie Monocoupe. Black fuselage, orange surfaces, gold letters. Banka photo.



Monocoupe 90A with Velie five-cylinder engine. Aircraft is white with red scallops. Photo courtesy Bob Banka.



Monoprep parasol version, Goettingen airfoil. Developed as TWA trainer. From author's June 1981 *MAN* construction article.



Monocoupe Model 90A converted to inline Lycoming. Hump at windshield bottom. Yellow with white trim. Henry Frautschy photo.



90AL with correct cowl. Maroon aircraft with white scallops and trim, rarely seen in model form. Photo courtesy Bob Banka.

Flight models evolved from huge cabin models, such as the KG-1, to pylon designs, such as the Zipper.

Model design underwent a monstrous change when Ray Arden introduced the glow plug in 1948; it became possible to eliminate the weight of coil, condenser, and batteries required by spark-ignition systems.

I illustrated some of those changes in Control Line last month, but Free Flight, and even the rudimentary Radio Control models, suddenly changed as well.

Then the revolution of the tiny glow-plug engine hit.

Lead by the 1947 K&B Infant, and quickly followed by numerous other ½A units, small, compact models were no longer novelties, but practical, everyday designs.

In contemporary times, there is a wide range of purpose-designed power plants in our hobby, ranging from the tiny electric units in Indoor Free Flight and Radio Control, to gas turbines.

In each instance, the development of the power plants has lead to development of suitable model designs. And isn't that fun?

Of Monocoupes and Engines: The full-scale Monocoupe aircraft series' design evolution is directly related to the development of suitable power plants.

The following material is condensed from what many consider the definitive work about an aircraft manufacturer: *Of Monocoupes and Men* by John Underwood. Although this highly-prized rare book has been out of print for many years, you might be able to locate a copy in your local library.

Clayton Folkerts was a Bristow IA farmboy with no formal engineering education, but he had a burning desire to design and build airplanes. He had developed four different aircraft, and had taught himself to fly them by 1926.

Recognized throughout the Corn Belt as an innovative and knowledgeable designer, Folkerts designed the early Monocoupe series and a later series of highly-successful raceplanes, some of which outperformed the military's frontline fighters using a fraction of the power.

Donald Luscombe operated a small advertising agency in Davenport IA after he graduated from Iowa State with a degree in merchandising. His interest in aviation was sparked by begging "joyrides" in France, where he served as an ambulance driver during World War I.

Donald purchased a new crated Jenny in 1924, and he learned to fly. Unhappy with the helmet and goggles required in the open-cockpit aircraft of the day, he dreamed of an enclosed-cabin design.

Donald sold his idea to a group of Davenport investors, who formed Central States Aviation in 1926. The group hired Clayton Folkerts to design and build a two-place enclosed-cabin airplane to meet Donald's dream.

A small two-place side-by-side design was evolved, but locating a suitable engine was a difficult problem; most aircraft engines of that era were terribly heavy, relative to their power.

A Curtis OX-5 weighed 400 pounds, yet was capable of only 90 horsepower. The French Anzani air-cooled radial was light and powerful, but was terrifically expensive. Other suitable power plants were either unreliable or in the very early stages of development.

The situation was resolved with the introduction of the five-cylinder air-cooled Detroit Air Cat engine, which was being produced by a firm headed by Eddie Rickenbacker.

A race-car driver before WW I, America's leading ace returned to civilian life to briefly own the Indianapolis Speedway. Eddie's other business ventures included an automobile (produced by Studebaker) bearing his name. He is likely best-remembered as the longtime head of Eastern Airlines.

The first Monocoupe was completed in March 1927, and it became an immediate success. Production was moved to Bettendorf IA into an abandoned clapboard "temple," where Billy Sunday had begun his "crusade."

Sales boomed following Lindbergh's epic flight and the national explosion of aviation interest that followed. Lindbergh even purchased one of the early Monocoupes for personal use.

Delivery and quality control of the Air Cat engine deteriorated as the financial woes of Rickenbacker's enterprise worsened. The firm was placed into bankruptcy by its creditors late in 1927.

That prompted Luscombe to convince auto manufacturer Willard Velie to assume engine production.

Willard had been a successful buggy manufacturer before switching to automobiles. Willard's grandfather had been successful in the farm-implement business: John Deere.

Production of the Monocoupe was soon combined with production of the engines at Velie's works in Moline IL, which led to renaming the firm Mono Aircraft Inc.

The Air Cat was reworked to utilize aluminum cylinders and sodium-tipped pushrods, and it became a much-revered unit. Sales continued to grow, and a nationwide distribution network was established.

When Willard Velie and his son died of natural causes in 1928, the engine business was sold to the Lambert family in St. Louis MO and the aircraft division was sold to Allied Aviation, also in St. Louis.

By the end of 1929, more than half of the light single-engine aircraft sold in the US were Monos of some kind.

Donald Luscombe eventually left the firm, to establish his own company in Kansas City in 1933. That firm developed a stretch-formed all-metal fuselage design that became the Luscombe Phantom and evolved into the Silvair and the Model 8.

The Monocoupe commonly called the Velie Monocoupe evolved into the 90 series, most of which were powered with radial Velie/Lambert Air Cat (80A) engines.

Later St. Louis Monocoupes used larger and larger engines, culminating in the 145 powered with a 145-horsepower Warner engine.

When the horizontally-opposed power plants became available, Franklin and Lycoming versions were manufactured (90F and 90L).

As the years have passed, it is not unusual to find a 90A that has had its long-out-of-production radial engine replaced with a contemporary inline power plant. I have included a photo of one of these conversions, to help you distinguish between it and a true 90L.

Monocoupes lend themselves well to



PART NUMBER	ITEM	MSRP	MAP
150	Giant Scale Rotating Retract	$330.00	$295.00
150B	Giant Scale Rotating Retract (Byron)	$350.00	$315.00
150R	Giant Scale Rotating Retract (Royal)	$350.00	$315.00
150Z	Giant Scale Rotating Retract (Ziroli)	$350.00	$315.00
150ZF6F	Giant Scale Rotating Retract (Ziroli F6F Hellcat)	$390.00	$345.00
150HD8	Heavy Duty Giant Scale Rotating Retract - 8" Strut	$390.00	$345.00
150HD9	Heavy Duty Giant Scale Rotating Retract - 9" Strut	$390.00	$345.00
151	Pneumatic Retract 90 Degree Straight Strut	$305.00	$270.00
152	Pneumatic Retract 85 Degree Straight Strut	$305.00	$270.00
153	Pneumatic Retract 90 Degree Offset Strut	$310.00	$275.00
154	Pneumatic Retract 85 Degree Offset Strut	$310.00	$275.00
158	Steerable Retractable Nose Gear	$195.00	$172.00
158F	Steerable Retractable Nose Gear with Wheel Fork	$195.00	$172.00



		MSRP	MAP
159	Steerable Fixed Nose Gear with Offset	$125.00	$110.00
159F	Steerable Fixed Nose Gear with Fork	$125.00	$110.00



		MSRP	MAP
160	Scale Retract Tail Wheel with Wheel Fork	$73.50	$65.00
160R	Scale Retract Tail Wheel with Right Hand Offset	$89.25	$79.50
160L	Scale Retract Tail Wheel With Left Hand Offset	$89.25	$79.50
160WC	Scale Retract Tail Wheel with Wheel Fork and Air Cylinder	$99.95	$89.50
160RWC	Scale Retract Tail Wheel with RH Offset and Air Cylinder	$115.50	$103.50
160LWC	Scale Retract Tail Wheel with LH Offset and Air Cylinder	$115.50	$103.50
160AT-6	Steerable Fixed Large Scale Tail Wheel	$79.95	$71.50
160YAT-6	Steerable Fixed Tail Wheel (Yellow Aircraft AT-6)	$79.95	$71.50



		MSRP	MAP
145-5	85 degree Pneumatic Retract 5" Offset (P-51 Style)	$350.00	$310.00
145-5B	*85 degree Pneumatic Retract 5" Offset (P-51 Style)	$350.00	$310.00
145-6	*85 degree Pneumatic Retract 6" Offset (P-51 Style)	$350.00	$310.00
FW-190	FW-190 Fodke Wull	$375.00	$330.00
FW-190DS	FW-190 Fodke Wull (Don Smith)	$375.00	$330.00
FW-190TW	FW-190 Fodke Wull Retract Tail Wheel	$110.00	$95.00



		MSRP	MAP
630DSPF	DynaFlite Spitfire Heavy Duty Main Gear Retracts	$225.00	$200.00
630PSPF	PICA Spitfire Heavy Duty Main Gear Retracts	$225.00	$200.00
633ZP47	Ziroli 72" span P-47 Main Gear Retracts	$250.00	$225.00
636YP47	Yellow Aircraft P-47 Heavy Duty Main Gear Retracts	$375.00	$310.00
636YSPF	Yellow Aircraft Spitfire Heavy Duty Main Gear Retracts	$375.00	$310.00



		MSRP	MAP
161	AT-6 Retractable Main Gear (1/5 Scale)	$305.00	$280.00
162	DC-3 Retractable Main Gear (Ziroli)	$499.00	$450.00
163	B-25 Retractable Tri Gear (Ziroli)	$499.00	$450.00
615WF6F	Wing WF6F Main Gear Pneumatic Retracts W/RoboStruts	$229.00	$199.00
A10WART	Giant Scale A-10 Tri-Gear Retract Set	$545.00	$490.00
AERO Commander	Giant Scale Aero Commander Tri-Gear Retract Set	$550.00	$500.00
B-17	B-17 Gear 1/10 Scale (125" (3175mm) Wing Span)	$335.00	$300.00
B-25	B-25 Gear (Tri-Gear) (Ziroli)	$575.00	$517.00
B26	Don Smith B-26 Tri Gear Set	$595.00	$575.00
BGB	Byron Gee Bee Struts	$145.00	$130.00
BT-13	Baker BT-13 Main Gear Struts	$125.00	$112.00
CHIPMONK	Ohio R/C Chipmunk Struts	$120.00	$110.00
D-18	D-18 Beech Gear (Ziroli)	$325.00	$285.00
F7FB	Grumman Tiger Cat 1/5 Scale (Tri Gear)	$695.00	$595.00
HOST-421	Hostetler 421 Tri-Gear Set	$595.00	$525.00
LA7	Don Smith LA7	$325.00	$310.00
MONG	Mong/Full Tilt Boogie Main Gear Struts	$175.00	$150.00
P-38	CBA P38 Tri-Gear Set	$550.00	$525.00
P-39	Consolidated 1/5 Scale P39 Tri Gear Set	$575.00	$545.00
P-61	Black Widow (Tri-Gear) (Ziroli)	$575.00	$510.00
PC-9	PC-9 Strut Set	$195.00	$175.00
PT-17	PT-17 1/4 Scale Stearman (Dively)	$210.00	$189.00
PT-17R&S	PT-17 Stearman (Royal & Sterling)	$125.00	$112.50
PT-17Z	PT-17 Stearman Struts (Ziroli)	$135.00	$120.00
PT-17MW	PT-17 Stearman Struts (Midwest Super Stearman)	$125.00	$112.50
PT-19H	PT-19 Struts (Hostetler)	$135.00	$120.00
SBDZ	SBD Dauntless (Ziroli)	$395.00	$360.00
SBDZ-TRP	SBD Dauntless Bomb Trapeze (Ziroli)	$105.00	$89.00
T-28B	T-28 1/5 Scale (Tri-Gear) (Byron)	$595.00	$570.00
T-34	T-34 (Tri-Gear)	$610.00	$575.00
T-50	Cessna Bobcat / T-50 (Don Smith)	$525.00	$490.00
WB25	Wing B-25 Tri-Gear Retract Set	$350.00	$325.00
YP-38	P-38 (Tri-Gear) (Yellow Aircraft)	$595.00	$525.00
ZP-38	P-38 (Tri-Gear) (Ziroli)	$595.00	$525.00
ZF9F	Ziroli F9F Panther Tri-Gear Set	$350.00	$315.00
ZP-47	P-47 (92" Wing Span Ziroli)	$350.00	$310.00
ZSSL	Ziroli Spirit of St. Louis Gear Set with Wing Struts	$295.00	$275.00
ZECOUP	Ziroli Ercoupe Tri-Gear Set	$220.00	$200.00

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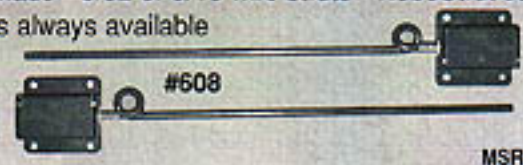
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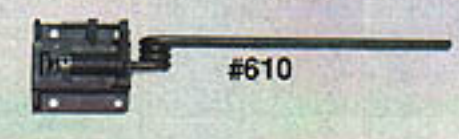
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#608HD	—90 deg mains *1 Pair*	$76.95	$34.95
#609	—85 deg mains *1 Pair*	$76.95	$34.95
#609HD	—85 deg mains *1 Pair*	$76.95	$34.95
#610	—90 deg nose Ea.	$54.95	$26.95





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NUMBER		MSRP	MAP
#193	—Robart Shut Off Disconnects *Qty. 2*	$17.95	$14.95



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NUMBER		MSRP	MAP
#225	—Robart Brass Tees *Qty. 2*	$5.95	$4.79



Robart Quick Tees
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NUMBER		MSRP	MAP
#226	—Robart Quick Tees *Qty. 2*	$9.95	$7.95

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Scale modeling; they have moments and arrangements that produce good-flying and very-attractive models, be they Peanut or Giant Scale.

Many versions of the Monocoupe have been kitted, and modeling magazines have included numerous construction articles and plans. These would be dynamite subjects for the five-cylinder four-stroke engines.

Bob Banka's Scale Model Research has documentation photos and three-views for 32 Monocoupe models and color schemes.

Bob can provide documentation material for an amazingly wide variety of prototypes—he has 7,800 color Foto Paaks and 35,000 pages of three-views. He has become the premier source of documentation in the US, if not the world. See his ad in this issue for ordering information.

Szekely: Brian Allen of Sterling VA sent a clipping from Peter Bower's *Piper Cubs*, explaining the pronunciation of that strange little 35 hp cylinder blowing engine, shown in the April 2000 column.

"The Szekely name has been widely mispronounced, usually as *Zee-klee* or *Zay-kay*. The name is Hungarian and is pronounced *Say-kai*, according to the designer's nephew.

"The Szekely engine turned out to be an undesirable power plant. The cast-iron cylinders frequently cracked around the mounting flanges and separated from the rest of the engine. The FAA [Federal Aviation Administration] required the installation of tie-rods or cables circling he engine at the cylinder heads to hold broken cylinders in place until the pilot could land."

So although my phonetics were off, my speculation about the reasoning behind the cables running from cylinder to cylinder was correct.

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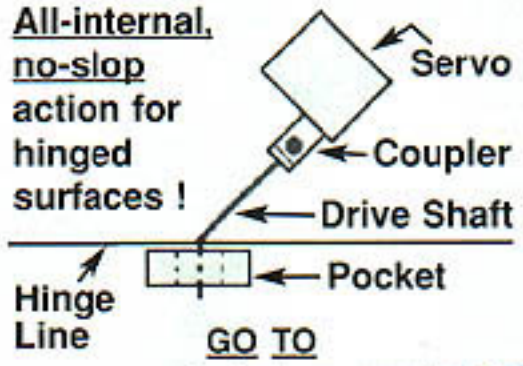
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Newcomers

Bob Underwood

Box 40, St. Peters MO 63376

THE FEBRUARY television "sweeps" have come and gone.

I was settled into rerun March when the catalog came in the mail. With the house quiet and a few minutes to spare, I dug into the catalog. I didn't have anything specific to buy; it was just some ho-hum time away from a hectic schedule.

A banner note alongside a picture of a model leapt from an advertisement: "90% prebuilt—and completely finished."

A chuckle escaped my old head. My wife glanced my way, attributed my utterance to senility, and went on reading her book.

The chuckle was forthcoming since a month or two earlier; I had read a delightful editorial by Jeff Troy, editor in chief of *Hobby Merchandiser*, an industry magazine. In a very humorous fashion, Jeff poked fun at some of the language usage of today.

His thrust: how can something be prebuilt—built before it's built? The concept that something is 90% prebuilt *and* is "completely finished" is even more interesting.

You know what is being implied: The construction of the model is completed (90%) and some assembly (10%) is necessary. Everything is "finished," meaning that the covering is applied.

The few moments of time required to ponder this interesting advertising approach spawned the thoughts for this column. This column isn't to take the advertisers to task for the wild-and-wooly ride they subject us to with copious adjectives and adverbs thrown about. Frankly, I rather enjoy the exercise.

Years ago when I was teaching fifth graders, I had them bring in advertisements so they could dissect the sentences (or sometimes could not—dissect sentences, that is) by eliminating the adjectives and adverbs and getting down to bare-bones text.

Try it sometime. You'll find it humorous—especially with the automobile ads.

The discovery of the advertisement text nudged me into a deeper examination of the catalog.

"Newcomers" features a section called "Illumination." The purpose is to identify the terms or jargon used in the hobby. I also attempt to explain the use of various initials, acronyms, etc. as I've used them.

To the credit of the company whose catalog inspired this column, a number of the "brief speak" are identified in the text or in a separate listing.

The mail-order company is not the originator of many of these terms. The radio companies, the engine people, and the associations and SIGs (Special Interest Groups) in AMA (Academy of Model Aeronautics) are responsible as well.

What's an ARF? It may or may not be an AWARF, and it certainly isn't an RTF.

The Almost Ready to Fly (ARF) has been around for many years. However, the All Wood Almost Ready to Fly (AWARF) and the Ready to Fly (RTF) are much-more-recent additions to the vocabulary.

Now you have an idea where this is headed.

On facing pages in the catalog are banners indicating that the models are "IMAA Legal."

If you think that building a model for your private Sunday pleasure is going to bring uniformed Special Weapons And Tactics (SWAT) teams to check out the model, rest assured—that won't happen.

However, if you wish to enter and fly in one of the many wonderful International Miniature Aircraft Association (IMAA) fly-ins held throughout the country, there are requirements for the model size.

The IMAA is a large model-oriented SIG. (This is a test—do you remember?)

The two models pictured in the catalog may cause a concern about how they can be "legal." One of the models sports an 81-inch wingspan, one inch longer than the minimum required. The other model has a 73-inch wingspan.

How is that legal? It is a ¼-scale! That's another possible way to qualify.

There's a model in the catalog that you can build to enjoy IMAC and TOC-style 3-D (three-dimensional) aerobatics.

IMAC stands for International Miniature Aerobatic Club—another SIG. (You've got that one down, haven't you?) IMAC is the model twin to the full-scale Aerobatics group, IAC (International Aerobatic Club).

Page 86 of the AMA *Competition Regulations* provides the rules for IMAC events. IMAC flies the Aresti system of maneuvers, defined by lines, arrows, and other systems to illustrate rolls, loops, turns, etc.

TOC stands for Tournament of Champions. This is an invitational event held in Las Vegas, and it features *big* bucks to the participants who fly *big* models—*really big* models!

Part of the TOC routine may include 3-D maneuvers that are impossible to describe, let alone to believe that an aircraft can perform them.

There's a model with "barn door ailerons" displayed in the advertisement.

You won't find a Mail Pouch™ Tobacco ad on the side. You will find wide, partial-span ailerons inset in the wing and running from mid-span to the tip, as opposed to "strip ailerons" that are like an add-on to the trailing edge—usually running the length of the full wingspan. The latter are much narrower.

"The ultimate in indestructible RC aircraft" was featured on one page of the catalog.

The term "indestructible" may be overkill. If you can't destroy the aircraft, I'll bet the average two-year-old could do it in a flash.

To the company's credit, however, it states that "if you crash or destroy" the model before you learn to fly, it will "replace it free."

The section dealing with engines has acronyms galore!

There's LA and FP-RN, FSR-RN, BGX and RX, FS and RX, GPA and XL Series ABC, FT and FR5, AP, etc. Most of these are simply model designations, which run from the not-so-expensive to "gulp!"

In a few cases, the letters refer to engine construction and/or metallurgy. ABC stands for the metal combinations for the pistons and cylinder liners—Aluminum/Bronze/Chrome.

BB it refers to ball-bearing-supported crankshafts. Inexpensive engines use bushings in place of the ball bearings.

Some engines feature CNC (Computer Numeric Code) production machinery for grinding the parts, as opposed to LAR (Looks About Right method—my term).

Actually, BB and CNC can and will produce excellent products. The difference may be in the unit cost to produce.

You'll also see acronyms to designate the family of adhesives referred to as "instants."

In the late 1970s, many persons referred to these as "Super Glue™." More commonly used is CyA—the technical term for cyanoacrylate adhesives.

Regardless of the term, if you drop the bottle on the floor and step on it, you're still going to stick your shoe to the floor, or stick your finger to your nose, ear, or model.

It's nice to have CG stands to measure the Center of Gravity. Devices to measure control surface "throw" are helpful, and an "incidence" meter is indispensable.

You know why the CG is important. A tail-heavy model flies once—almost!

Many modelers feel "if some is good, more is better" about control-surface throw.

Wrong! Too much, and you may achieve the same result as an incorrect CG.

The same is true for wing and horizontal tail incidences. If they are not properly set, you run the risk of having a model that is hard to handle at best, is a bag of pieces at worst.

Incidence refers to the angle at which the flying surfaces are set, relative to the thrustline of the engine and fuselage.

Now to the electronic stuff.

You've probably become accustomed to the acronym Ni-Cd; it stands for the rechargeable Nickel-Cadmium cells that have been standard in our systems for years. Ni-Cds have been used to power the Tx (Transmitter), Rx (Receiver), glow plug, fuel pump, etc.

But a new kid has invaded the block!

The name is NiMH—same first letters, but different family.

The Nickel-Metal Hydride batteries offer reduced weight and improved capacity. With this is the promise not to form a memory through the charging/discharging cycle.

Of course, you'll want to consider the mAh capacity—the amount of milliampere hours the batteries will supply.

The AA in our house inputs the radio system. (No, that's not what you think—AA stands for Administrative Assistant! The radio stuff is really another language.)

I threw Rx and Tx at you earlier. But let's take a few *simple* terms from one description and see how they fly.

Consider that you can buy radio systems with ATV, exponential, preprogrammed mixes, dual rates, all-channel EPA, SMT, higher 3OIM, LED displays, sub trims, DSC, five-point revolution mixing, ATL, and dual conversion, and you can get them in AM, FM, PPM, and PCM!

Huh?

I won't run through all of these, although isn't the "preprogrammed mixes" like the opening from Jeff Troy about models built before they're built?

1) ATV is Adjustable Travel Volume, sometimes referred to as EPA—endpoint adjustment. It lets you set how far the servo will travel on either side of neutral. It's a big help!

2) Dual rates allow you to set two (or more) amounts of surface travel, controlled by the flip of a switch.

3) SMT: Surface Mount Technology—how the components are attached to the circuit board.

4) 3OIM: Third Order Intermodulation rejection. This determines the selectivity of the receiver in rejecting certain types of interference.

5) LED displays: Light-Emitting Diode.

6) DSC: Direct Servo Controller. This allows you to set trims, operate servos, etc. without turning on the portion of the Tx that transmits a signal. This is really helpful at crowded fields and contests.

7) Dual Conversion: Utilized in receivers to filter the incoming signal, and to increase selectivity and sensitivity.

8) AM, FM, PPM, and PCM represent the forms of modulation employed to transmit the signal. There's not much Amplitude Modulation (AM) around. Frequency Modulation (FM) is found in most units. Pulse Code Modulation (PCM) and Pulse Position Modulation (PPM) are generally found in the more-expensive units, and include the so-called "fail-safe" options.

Look at the "Electronics" column by Eloy Marez for more information on this subject.

To really get confused, purchase a computer radio and try to read the symbols used on the programming screen.

There's so much more on the subject—I haven't even touched on the myriad of terms and acronyms for the general association business.

Perhaps next month, if meetings with the AMA's EC (Executive Council) and the FAI CIAM (Federation Aeronautique Internationale's International Aeromodeling Committee) don't eat up too much of MAT (My Available Time), we can continue to delve into this LICLAP (Lesson In Confusing Labels and Phrases). MA

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OS46 SF	14,000	15,700
OS61 FX	11,700	13,000
OS61 SF-P	12,400	13,900
ST GS 40	13,600	15,000
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Electronics

Eloy Marez

2626 W. Northwood, Santa Ana CA 92704

Publisher's note: The following column discusses the death of Adam Kirby, 11, at a routine club flying session in Great Britain last year, when he was killed by an out-of-control model airplane. While modelers worldwide still seek to fully understand the lessons of this tragic event, AMA president Dave Brown addressed this subject, and in particular two transmitters on the same frequency creating a condition of interference, in the April 2000 issue of Model Aviation.

*Those who wish to read Dave's column but no longer have this issue can click on "*Model Aviation*" on the AMA Web site, www.modeliarcraft.org.*

PCM AND FAILSAFE! Those of you who peruse the magazines from England no doubt saw a report of a serious accident that occurred at one of their flying fields last year.

I feel the need to discuss this incident here because we are not immune from the cause, and all of us, regardless of which country we are in, can suffer from any legislation that comes about from cases such as this.

First of all, don't get the idea that it happened because they—in this case, the English—are not as advanced as we are at RC, or are not as careful, etc! Not so. In fact, some of the European countries have far stricter rules to follow, both in equipment parameters and in personal skills.

It appears that this accident involved the crash of a model into the pit areas, just after it had taken off. *It was later determined that another transmitter on the same frequency had probably been turned on in the pits.*

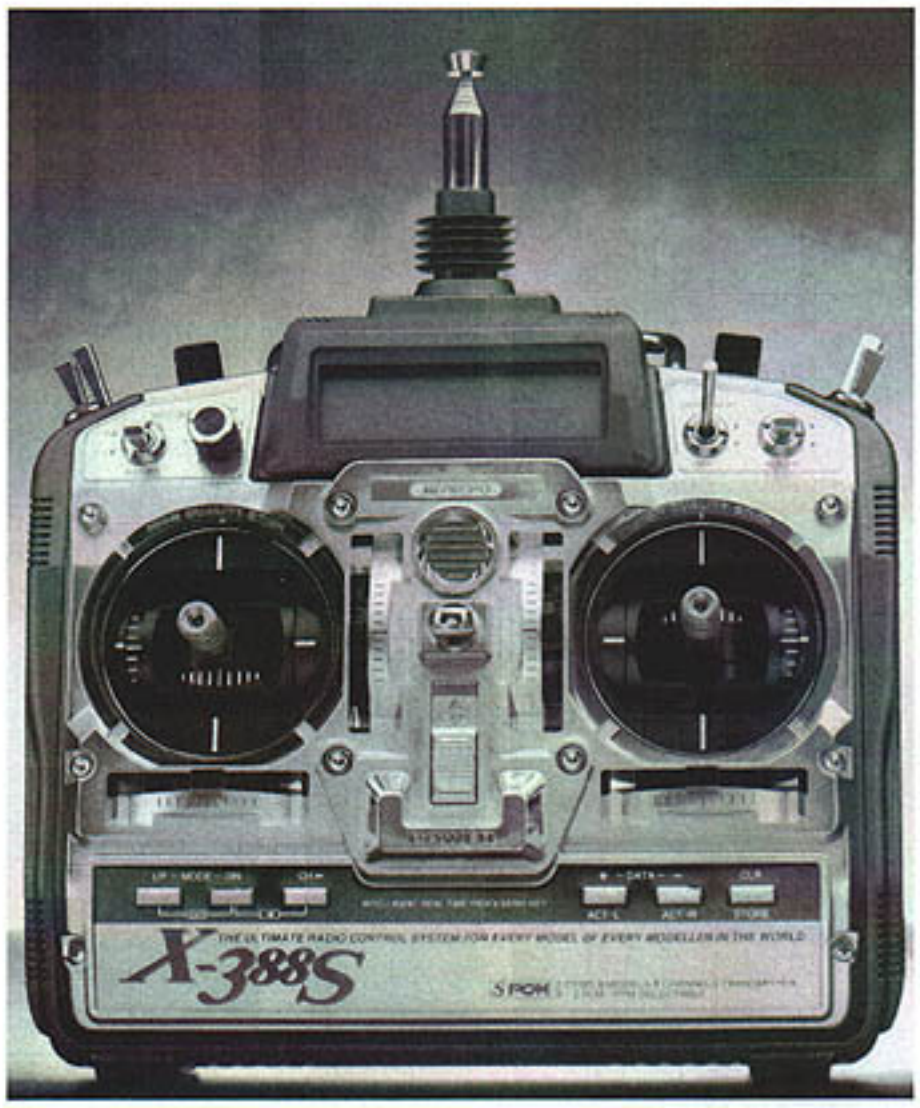
Shortly after takeoff, the airplane, equipped with a PCM and failsafe-equipped radio, went into failsafe "hold" and flew for approximately 20 seconds at half throttle. Having climbed to approximately 100 feet, it then went into a diving left-hand turn and into the pits. Apparently the person injured did not hear all the shouting that ensued, because of an engine being run in the vicinity.

The British Model Flying Association (BMFA), England's equivalent to our AMA, through its Technical Council, has released the following information in an article by Andy Ellison of the R/C Power Technical Committee in the December 1999 *BMFA News*:

"The BMFA Technical Council sat to deliberate proposals put forward ... relating to the use of PCM radio and its association with programmable radio Failsafe devices. This was in order that the problems associated with its usage could be clarified and passed on to R/C flyers ... "The following is a synopsis of my findings. Please bear in mind that the terminology relating to this topic varies greatly from one radio manufacturer to another, and so for the purpose of this safety notice has been generalised.

"The term HOLD refers to a scenario whereby the servos HOLD the position they were in just before the interference arrived. The term PRESET refers to the moving of the servos into preprogrammed positions which were defined by the operator before flying. Failsafe is a generic term to cover both."

Note: While the above states that the Failsafe will operate when "the interference arrived," it will also take over in the event the transmitter signal is lost, i.e., transmitter battery or other component failure. The continuing reference to "interference" is probably because of the fact that it was a contributing factor in the case in question.



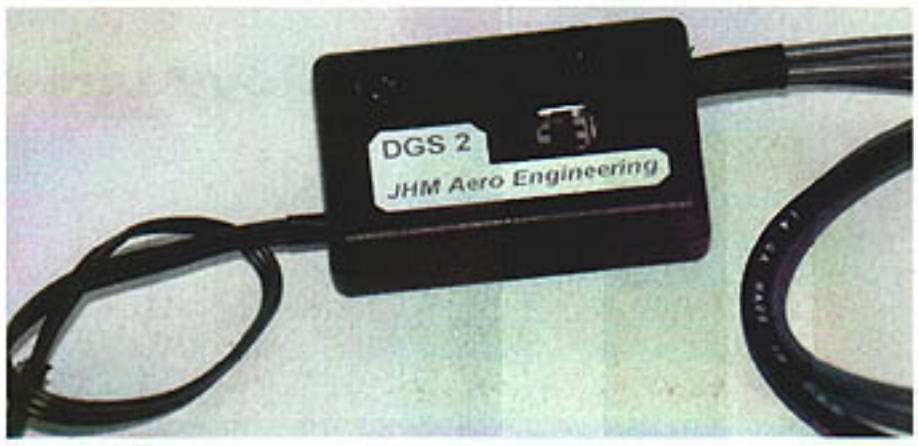
Not to imply that radio by JR was cause of incident mentioned in text; shown merely as example of PCM radios being discussed.

"Computerised radios are an ever increasing feature of the modern R/C flying club. Regrettably, it is also the case that many of the users of such devices do not fully understand their operation, nor indeed the content and facilities of the operational software contained within. This is particularly the case where PCM mode is selected with respect to the PRESET/HOLD options.

"It was found that a disturbing number of average flyers using these radios (around 80%) were unaware that selection of PCM mode automatically brings with it the Failsafe features of the programme. Basically, if you select PCM, you have a Failsafe set to prevent the model from flying away."

(Discussion of PCM usage in models that weigh more than seven kilograms—failsafes are a requirement in England for such models—follows. It is not applicable in the US.)

"Modelers transmitting on PCM, when questioned on the settings of their Failsafe, frequently answered that they did not have a Failsafe on their model, as it was under the 7 kg limit. The unfortunate fact of the matter is that they did indeed have a Failsafe operating on their model, but did not realize it. Moreover, because they did not realise it, they had not programmed it, and in the event of signal loss, it would defer to factory default settings, usually HOLD. This of course includes the throttle servo. If this interference occurs at take-off for example, the throttle holds at an opened position with minimal



JHM Aero Engineering onboard glow driver will light plug reliably, efficiently. The turn-on point is user-adjustable.

RC Receivers and the FCC

Beginning in 1999, new stricter FCC regulations went into effect regarding emissions produced by receivers. The following article provides information relative to the FCC authorization program for the receiver. It should be noted that certified receivers produced prior to 1999 are grandfathered indefinitely for use by consumers."
—Bob Underwood

A device that generates radio frequency energy requires authorization from the FCC before it can be marketed. This obviously includes transmitters that are designed to generate and transmit radio signals, which the FCC calls "intentional radiators." But it also includes electronic devices that contain circuitry that emits a radio signal as a by-product of their intended function. These devices the FCC calls "unintentional radiators" and a good example is a radio receiver.

While a radio receiver is not intended to transmit a radio signal, it nevertheless contains circuitry that generates very low power radio signals which can be detected. RC receivers are no exception. Low power radio frequency devices, including RC receivers, are subject to Part 15 of the FCC's Rules and Regulations and require FCC authorization before they can be marketed. (See Section 15.101 of the FCC's rules.) Depending on the nature and radio frequency of the signal, Part 15 will specify the maximum permissible field strength of the radio signal in microvolts per meter, usually measured 3 meters from the device.

In recent years, the FCC consolidated its various equipment authorization procedures. In the case of an RC receiver, the responsible party can choose between two equipment authorization procedures: 1) Declaration of Conformity or 2) Certification.

Declaration of Conformity is a self-approval procedure where the responsible party has a sample of the equipment tested by an accredited testing laboratory to confirm that the equipment complies with the appropriate technical standards set forth in Part 15. Submittal of a sample unit or representative data to the FCC demonstrating compliance is not required unless the FCC requests it. The responsible party must keep detailed records of the test procedures and results and must uniquely label the product in such a way that the FCC can correlate devices in the field with the responsible party's testing records.

Certification is an equipment authorization issued by the FCC, based on representations and test data submitted by the responsible party in an application to the FCC. When the FCC grants the application, the responsible party must label the product with a formal FCC ID label that bears the grantee code and the unique product identifier.

In the case of equipment that is marked pursuant to a Declaration of Conformity, the product must be supplied with the following information: the product name and model designation; a statement that the product complies with Part 15 of the FCC's rules; and the name, address, and telephone number of the responsible party. In the case of equipment that is marketed pursuant to FCC Certification, the product must bear a label with the words "FCC ID," followed by the grantee code and the unique product identifier. Modelers should look for this information in order to assure themselves that they are purchasing properly authorized equipment.

—AMA Frequency Committee

deflection on the other control surfaces, the results can be disastrous.

"If you use a typical Computerised Transmitter, you should be aware of the following basic findings:

• Almost all sets give an automatic PRESET/HOLD feature as soon as PCM is selected. This Failsafe becomes operational if interference occurs at the receiver of the model. Control returns to the pilot when the interference ceases. If the interference does not cease, the pilot will not regain control.

• The Failsafe software cannot be totally inhibited. It will either hold all (HOLD) or go to positions preprogrammed by the pilot (PRESET). Some sets allow a combination of this feature, i.e., some channels will go to a PRESET position and some controls will HOLD at their last position.

• The default setting if nothing is programmed is to HOLD at last input position, including throttle. This will become operational after a predetermined interval set by the pilot (1.0 seconds, 0.5 seconds, or 0.25 seconds) or after a default interval if nothing is programmed. The interval is the length of time it takes, starting the moment interference occurs, until the servos assume their preset positions.

• The Failsafe does not work in the event of receiver nicad [sic] loss.

• Programming of the PRESET feature is done by opening the memory of the computer, putting the sticks, switches, and potentiometers in a selected position, and then closing the computer memory. This can be quite difficult to follow, even from the radio instruction manual.

• If a model normally flown on normal modulation (PPM) is swapped to PCM by a change of receiver, the Failsafe feature is again automatically selected even though none of the other settings in the transmitter are altered. There is no warning given to the pilot to remind him that he is now flying under the protection of PRESET/HOLD software.

"To illustrate the seriousness with which the BMFA are taking this matter, the Technical Council unanimously agreed to a plan of action which has been reported to the coroners inquest and includes:

1) The forwarding of our findings to all known radio manufacturers highlighting the problem and requesting/advising that they:

i) Negate the problem through the use of revised software, i.e., inhibit the Failsafe function so that it must be selected to turn it on, and modify the factory settings for the throttle function so that it does not default to HOLD and

ii) Publish in the operations manual for the Radio, clear and concise instructions highlighting the potential danger of an 'un-programmed' transmitter based radio Failsafe device.

2) The findings are passed to the CIAM/FAI [International Committee for Aeromodeling/Federation Aeronautique Internationale] with the expressed request that they distribute them to all National Aeromodeling Governing Bodies in a suitable publication.

3) The CIAM/FAI/BMFA instigate an emergency general rule change to ensure that any powered models flown under the protection of a Radio Control Failsafe device must ensure that said device brings the motor/engine to run at its lowest speed (stopped, in the case of electric powered models), and specifically not to HOLD the last position of the motor/engine control."

It is now soapbox time!

First of all, let us all admit that there is some danger involved with our favorite pastime. And it is not limited to large airplanes, as some seem to think. I have no doubt that an .049-powered racer or Control Line Speed airplane is capable of killing you if it happens to hit you just right. And one would be just as dead as if it had been one of those "7 kg" models mentioned.

Let us look at some of the terminology in use—a contributing factor when it comes to understanding not only the Failsafe

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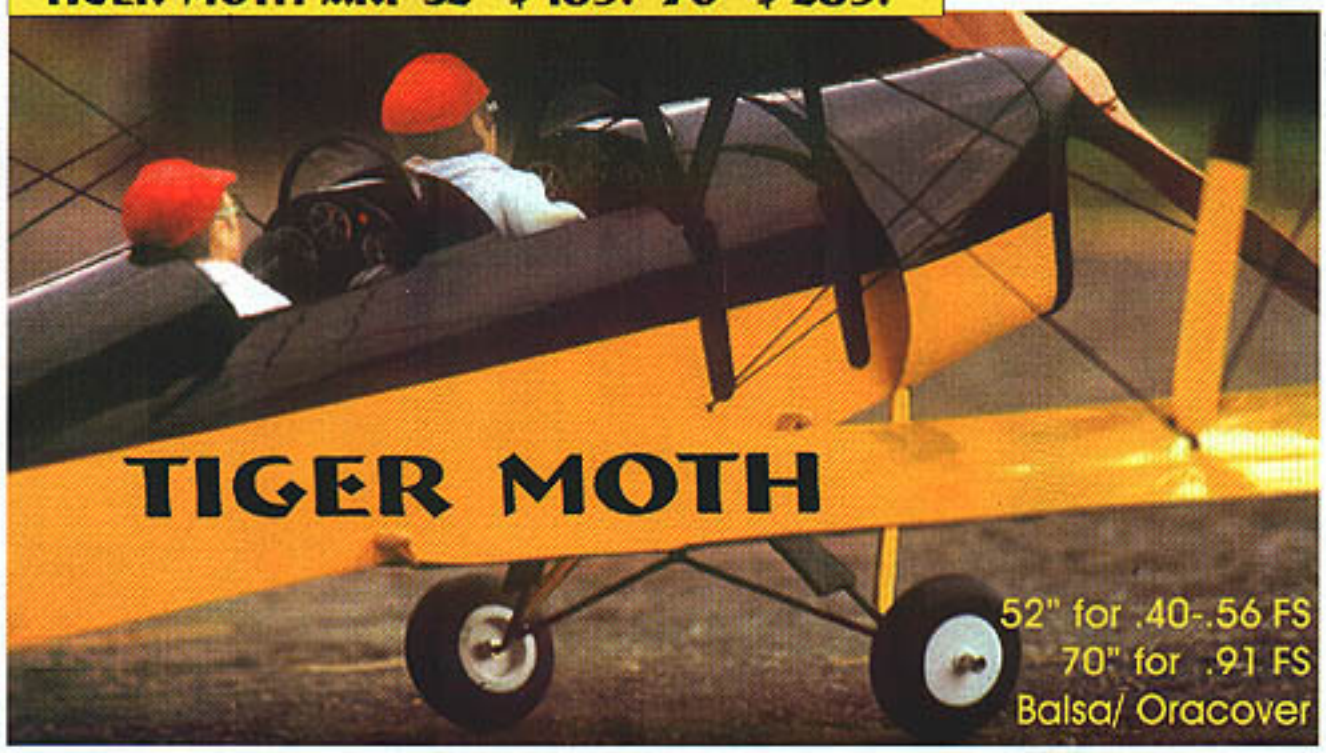


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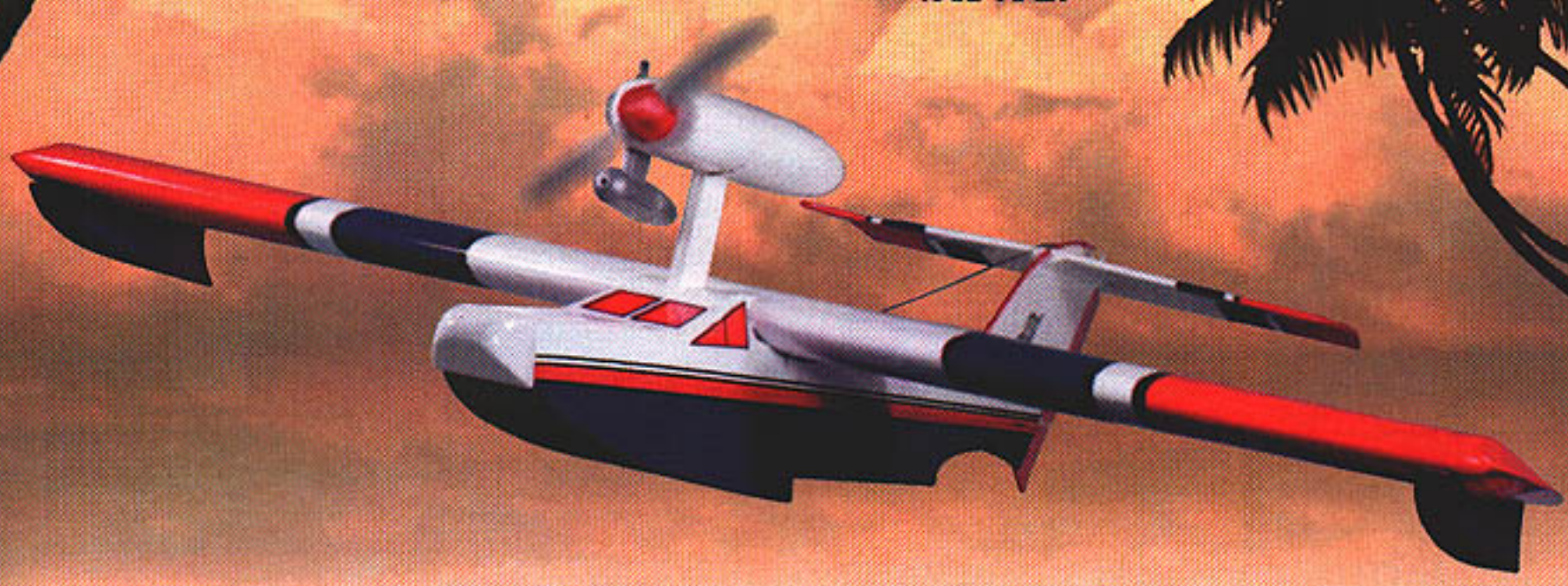
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functions, but all functions of our varied equipment.

We can start with the other mode mentioned, different from PCM (Pulse Code Modulation; computer-speak, if you will!), that which is referred to as PPM (Pulse Position Modulation). It is totally incorrect, the actual system in use being Pulse Width Modulation (PWM). Even in a PCM system, the ultimate control information fed to the servos is PWM; that is why servos are all completely plug-in compatible. Even the new "super" and/or "digital" servos are PWM-controlled.

How do things like that happen? My guess is that when Pulse Width Modulation was first translated from the original foreign instructions, it came out incorrect, and for some reason all other instructions followed. Not only that, but some of the terminology in use has no actual reference to its effect.

For example, ATV and VTR (Adjustable Travel Volume and Variable Trace Ratio); neither is fully descriptive of its function. *Volume* is not a word normally used to express movement, or travel, which it does in this case. VTR has absolutely no meaning in electronics or aeronautics. As in the case of Failsafe, I seriously doubt if, outside of Tournament of Champions circles, we would find one flier who uses it or knows what it does.

I believe it is time for AMA and RCMA (Radio Control Manufacturers Association) to enter the picture, and as AMA has done in the case of narrowband receivers, stress the need for some standardization in terminology and thorough, easier-to-understand instructions. Anyone who believes that the latter are adequate should be called on to explain why aftermarket instruction books and videos are available for some of the popular radio systems.

In the way of explanation about the preceding remark about narrowband receivers, it must be remembered that their use is "recommended" by AMA.

Editor's note: Item 3.3 of the AMA Frequency Management Plan in the Membership Manual *states that "It is recommended that channels 00 through 60 use narrowband receivers ..."*

Narrowband transmission from the transmitter is a Federal requirement, via the FCC (Federal Communications Commission), but they do not legislate receiver bandwidth requirements.

For additional information, please see "RC Receivers and the FCC" on page 84 of this issue.

Concerning the qualifications of PCM radio owners, I am not surprised that 80% are unaware of this particular function of their systems. England is not alone in this respect; I see the same thing here in the US, not only about the Failsafe but about most of the more-sophisticated functions of the radio.

A vast majority of PCM radio owners use them as basic four-channel noncomputer radios. Let's face it: you don't really need a 10-channel PCM TOC-class radio to fly your Ugly Stick. Why have them at all? I guess there is some of the same snob appeal to a PCM system as there is to a BMW® or Rolex®.

There is little we can do about the Sunday flier, but it seems to me that we can have some control at club fields and contests. Possibly in the same manner we now check airplanes for safety items, we can also have field marshals quiz PCM owners as to their knowledge of their systems, and just how the Failsafe is programmed.

In the case, as mentioned, that the Failsafe does not function in the event of airborne battery failure, a backup battery system should be mandatory for certain airplanes.

Some of the cures have to start with the manufacturers. I feel very strongly that they have made a major contribution to the situation; as mentioned, the instructions leave a lot to be desired.

To start with, in all cases, instructions should be done by hands-on modelers, in plain electronic language if necessary, but using aviation-oriented terminology; and not forgetting for one sentence that the idea is to communicate and to educate, not to impress with advertising hoopla and confusing verbiage. And we must all remember that the idea behind all this is not to restrict us in any manner, but to protect us! *MA*

Thanks to BMFA for assistance in preparing this column.



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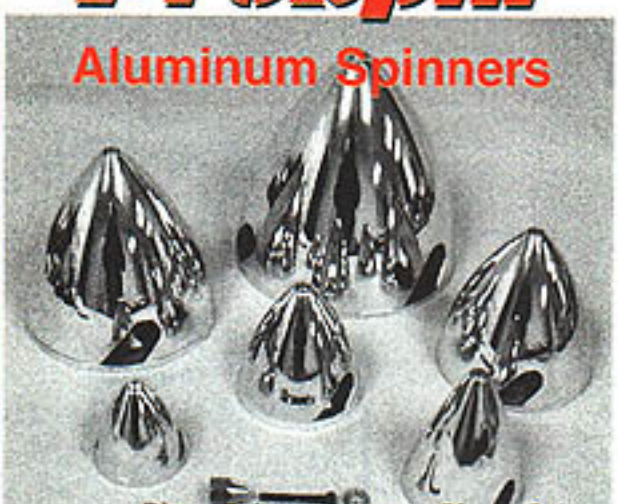
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5KR-1100AE		6.0/1100	84 x 43 x 18	18.00
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12th ANNUAL B-17 GATHERING AND BIG BIRD FLY-IN
SEPTEMBER 15-16-17, year 2000

Once again, the radio-controlled Big Birds and Bombers are migrating south to Bomber Field for our annual air show at Monaville, Texas.

All Big Bird aircraft are welcome to participate, including ducted fans & turbines. As is customary, only B-17's will compete for the Perpetual Trophy. All aircraft must be scale replicas of real full-scale aircraft and be radio-controlled.

The BEAR will fly, weather & mechanical conditions permitting. Two items will be raffled this year. One is a 102" wingspan AMERICAN EAGLE Kit of a P-51D Mustang. The second is a "Ready to fly" (less receiver & transmitter) IKON-NORTHWEST 1/4" SCALE MONOCOUP, powered by a G-23 engine. An absolutely beautiful model.

All pilots who fly are eligible for the following awards:

- B-17 Perpetual Trophy (1st, 2nd & 3rd)
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- Best Military Pre 1935 (1st, 2nd & 3rd)
- Best Military Post 1935 (1st, 2nd & 3rd)
- Best Jet Aircraft (1st, 2nd & 3rd)
- Multi-Engine Aircraft (1st, 2nd & 3rd)
- Best of Show (1st place only)

Transmitter Impound-controlled flying will be from 9 a.m. - 5 p.m. Friday & Saturday, and from 9 a.m. - 2 p.m. Sunday. All aircraft will be safety-inspected prior to flight. All A.M.A. rules will apply.
Raffle Drawing & Awards to conclude on Sunday, 2:00 to 2:30 p.m.

- Documentation: - Not required
- Pilot's Fee: $20.00
- General Admission: $4.00/Person (includes parking)
- A.M.A. Membership: **Required of all pilots.**
- Children under 12 - admitted FREE
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- Concessions on site.

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HT024

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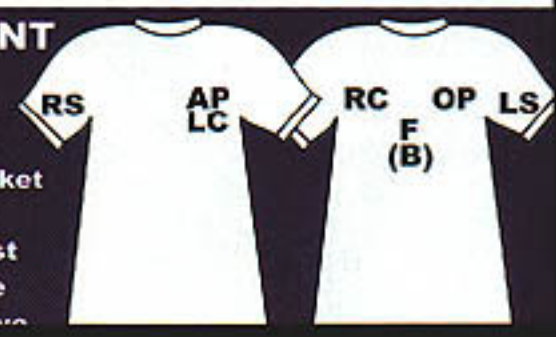
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LC=Left Chest
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LS=Left Sleeve
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That's how the Russians often describe their legendary Sukhoi superplane.

Loosely translated, it means 'terrific'.

And terrific is also the perfect word for the aerobatic capability of CGM's big, beautiful replica. This is one RC version of the SU26MX that doesn't just look like a Sukhoi, it *flies* like a Sukhoi.

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POWER: .90 2-CYCLE
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Kit includes fiberglass cowl and bellypan, canopy, tempered alloy landing gear and nylon engine mount.



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IN AN IDEAL world, every contest would be good, all skies would be blue (at least on the weekends), every judge would know all the rules, and all contest directors would be candidates for sainthood.

This is *not* an ideal world. See your local newspaper for details.

In the world we actually inhabit, contests, judges, and weather vary somewhat in quality (however, all contest directors *are* candidates for sainthood, which they have proven just by taking on the job).

We can't do much about the weather, other than packing the usual equipment: umbrellas, shelters, hats, sunglasses, and for those of us who live in the Pacific Northwest, inflatable boats.

Judging is a "we're working on it" thing. We were working on it a decade ago, and will be working on it a decade from now. Like painting the Navy's great gray ships, it's a job that will never end.

When contests are discussed, much of the emphasis centers on quantity, rather than quality. It is a balance-sheet approach; how many contests are held hither and yon, with how many competitors attending in each class, etc.

Less direct attention is paid to contest quality, even though nothing has a more direct impact on the attendance bottom line. People will return time and again to "good" contests, while "bad" contests wither on the vine, unpicked by competitors.

"Good" and "bad" are common measures, but inexact terms. When people use them, they seem to mean "fair," and "not fair" about 75% of the time. The other 25% of the time, they mean "well-run" and "poorly-run." Contest



How to really appreciate a CD: Gary McClellan gets dumped on following a successful event in Eugene, Oregon, circa 1990. Good contest, and still going strong.

size, field suitability, weather, field-food quality, the amount of work that might be expected of a contestant, and the grade of toilet paper found in the latrine do not seem to enter into the matter, save as very peripheral considerations.

There is a contest contract that exists between management and competitor. It is explicit, binding, and based on the AMA *Competition Regulations* and/or the FAI *Sporting Code*.

The contract is signed at registration: the contestant promises to fly safely, practice good sportsmanship, and abide by the rules and the CD's decisions. By posting the sanction, the CD promises that he/she will run the fairest contest under those rules that time, space, and local conditions permit, and that any exceptions to those rules made for local reasons will be published, posted, explained, *et al*, *before* the contest starts.

Beyond this signed and sealed agreement under the official auspices of the sanctioning body, entrant and management owe one another a little something extra if the whole thing is to really work well.

Management (all of the officials, plus the sponsor or sponsoring club—not just the CD) owes a "we care" attitude. This means caring about the sort of experience that each competitor has; communicating well, listening to concerns and suggestions, and yes, even complaints. It means setting up a system and field procedure that is clear and well-understood by the contestants, paying attention to start-times, being available to handle problems as they arise, and at least a hundred other small things.

One of the things it most emphatically does not mean is an instant "my way or the highway" attitude on the part of an official whose decision is questioned (I said all CDs were *candidates* for sainthood—not that all would be *elected*). This kind of arrogance is unnecessary and will rapidly cause people to find other ways to spend their free weekends.

An official, especially a CD, should always remain in control of a situation, but a little tact and diplomacy sandwiched around a short explanation of the rules and procedures involved is much more effective than the "because I said so!" approach.

Most Pattern competitors will tolerate bad motels, long drives, short runways, and crummy weather to return to a contest that



Sportsman contestant Mike Dunphy preps his Supra-Fly at Redmond WA in 1989.



Some things don't change much: the author runs the pilots' meeting at the Redmond, Washington contest in 1989.



The same Redmond contest 10 years later: Rob Opgenorth calls for Luke Peng. See text for Laws of Contests.

they thought was fair, but a couple of experiences with an arrogant official who ignores the rules in favor of his own opinion, or an apathetic contest crew with a "who cares?" attitude will disperse them faster than a tear-gas canister.

Once gone, they tend to stay gone. Blue skies, great field food, parties, barbecues, and a beautiful flying site won't bring them back. Even worse, they usually tell their friends about all the fun they didn't have.

On the other side of the fence, a contestant, besides basic good sportsmanship, owes contest management the benefit of the doubt. In these days of few officials and many contestants, he or she should also expect to help out when asked.

There are many ways and styles of staffing and running a contest, and most of them can work well. Things may have been done *differently* where you last flew; but that doesn't mean that they were done *better*.

These are the laws of contests:

• The First Law is that *contests must always be as fair as possible.*

• The Second Law is that *contests must be fun.* Otherwise, there is no point in their existence.

• The Third Law is that *the First Law is always paramount, even when it seems to conflict with the Second Law.*

The reason for the absolute ascendancy of the First Law over the Second Law should be obvious. Fairness makes fun possible, and the lack of fairness makes fun almost impossible to come by.

In this society, the idea of fair and equal justice is an integral part of our consciousness; embedded in the structure of our language, taught in our schools and churches, and constantly reinforced by our popular culture in the form of books, songs, and TV shows. Long before we are adults, any injustice, either perceived or real, provokes instant righteous anger within us. We just can't help it, no matter how many times we stop and remind ourselves that life *isn't* always fair.

Conflict sometimes occurs because a contest functions as much as a social event as a competition event. You often hear "We're just here to have fun," or "this is supposed to be a good time, right?" at an event. This is the sound of intensely competitive people who are reminding themselves not to take it too seriously; that this is a competition among friends, not a war to the death; and that minor injustices should be overlooked and forgotten in the spirit of good sportsmanship.

This is very, very human, and the soul of that contract I mentioned.

Management's primary function is to keep injustices and even the *appearance* of injustices from occurring. The competitor's job is to overlook them when they inevitably happen. It's difficult to say who has the harder task.

It does amuse me to watch a person's attitude toward contest officials change after they become a Contest Director and run a few contests themselves. They become a little slower to criticize, and a lot faster to empathize.

The Contest Director job is tough and high-pressure, and as a contestant, you should realize that person probably isn't having as much fun as you are. The CD has to take care of the First Law mostly alone, but your own personal attitude can help a lot with seeing that the Second Law is obeyed by those around you.

You will always hear about the extraordinarily bad or extraordinarily good events, but most contests, like most contestants, fall somewhere in between. Most often, the events you attend will be as bad or as good as you make them.

The party most responsible for the contest experience you have is *you*, so get out there and have some fun. While you're at it, remember to be fair to that CD. The chances are excellent that the CD is trying very hard to be fair to you.

Since 1987, I've been writing a Pattern aerobatics column somewhere, every single month. First in the *K-Factor* (the newsletter of the National Society of Radio Controlled Aerobatics), then in the now-defunct *Model Builder* magazine, and then in this wonderful publication of ours, *Model Aviation*.

In case you are interested, that adds up to well in excess of 160 columns and roughly 400,000 words on the single, limited subject of Pattern aerobatics. For purposes of comparison, the average novel is roughly 75,000 words.

In that time I've written about the technical side of Pattern models, the psychological aspects of Pattern flying, Pattern practice strategies, and Pattern design, trimming, building, judging, coaching, calling, and rules. I've expounded at great length (some say *too* great length) on the philosophy of competition. On occasion, I've ventured to delve into the history of Pattern, and—silly me—even predict the future of Pattern.

I've looked at Pattern humorously, quizzically, pedantically, and sometimes almost microscopically (I once wrote an entire column on transmitter stick lengths and spring tension).

I've related Pattern to subjects as diverse as sport, meditation, politics, and artistic perspective.

I've produced semischolarly treatises on pitch stability and propeller theory. I've covered setup, teardown, contest preparation, maintenance, color schemes, and slop-free control systems.

Enough already. I've told you everything I know about Pattern. In some cases, where I thought it important, I've told you several times over. I've tried to be educational, useful, honest about the issues of the day, and entertaining.

It's time to exit, stage right, before I'm reduced to churning out columns on the proper use of neck-strap adjustments, stunning new techniques for cleaning the grit out of tail wheel fittings, or the psychological implications of transmitter-tray dependency.

There will be a new columnist in this space next month, and as I write this, I have no idea who it will be. I have no doubt that whoever inherits this privilege will give you their monthly best, and I hope that you will support them as you have supported me.

I won't be totally disappearing from these pages. The current plan is to contribute occasional features of "general modeling interest"—a term that considerably expands the subject matter available—and perhaps do a little event coverage. I'm looking forward to it.

Editor's note: Our thanks to Rick for a job well done during his time as columnist and feature writer. Although he will no longer be writing this column, you will see plenty of his work in future issues.

Eric Henderson will begin a three-column trial in the "RC Aerobatics" chair in the August issue. Reader reaction will play a large part in determining the temporary or permanent nature of this assignment. MA

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w/F-54S (4C) Engine . .$298.99

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Radio: Requires 5 Ch (6 servos) • Wing Span: 60 in. • Wing Area: 629 sq. in. • Flying Weight: 7.5 lbs • Engine: .60 cu.in. (2C) or .90(4C) • 95% Ready to fly

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Radio: Requires 4 Ch (5 servos) • Wing Span: 55 in. • Wing Area: 1013 sq. in. • Flying Wt: 8.5 lbs • Engine: 1.20 - 1.50 cu.in. (4C)

Combo: w/Saito FA-120s engine .$699.99
w/Saito FA-150 engine .$739.99

Pitts S2B 120 Size ARF



Radio: Requires 4 Ch (5 servos) • Wing Span: 60 in. • Wing Area: 1020 sq. in. • Flying Wt: 9.5 lbs • Engine: 1.20 - 1.40 cu.in. (4C) • 95% Ready to Fly.

Combo: w/Saito FA-120s engine .$759.99
w/Saito FA-150 engine .$799.99

CAP 232 120 Size ARF



Radio: Requires 4 Ch (5 servos) • Wing Span: 73 in. • Wing Area: 964 sq. in. • Flying Wt: 10.3 lbs • Engine: .91-1.08 cu.in. (2C) or 1.20-1.40 (4C) • 95% Ready to Fly.

Combo: w/Saito FA-120s engine .$709.99
w/Saito FA-150 engine .$749.99

1/4 Scale Cub ARF $429.99

Radio: Requires 4 Ch (5 servos) • Wing Span: 104 in. • Wing Area: 1612 sq. in. • Flying Wt: 14.9 lbs • Engine: 1.20 - 1.50 cu. in. (4C)

Combo: w/Saito FA-120s engine $739.99



1/6 Scale Cub ARF $129.99

Radio: Requires 4 Ch (5 servos) • Wing Span: 71 in. • Wing Area: 638 sq. in. • Flying Wt: 3.2 lbs • Engine: .49 - .53 cu. in. (4C)

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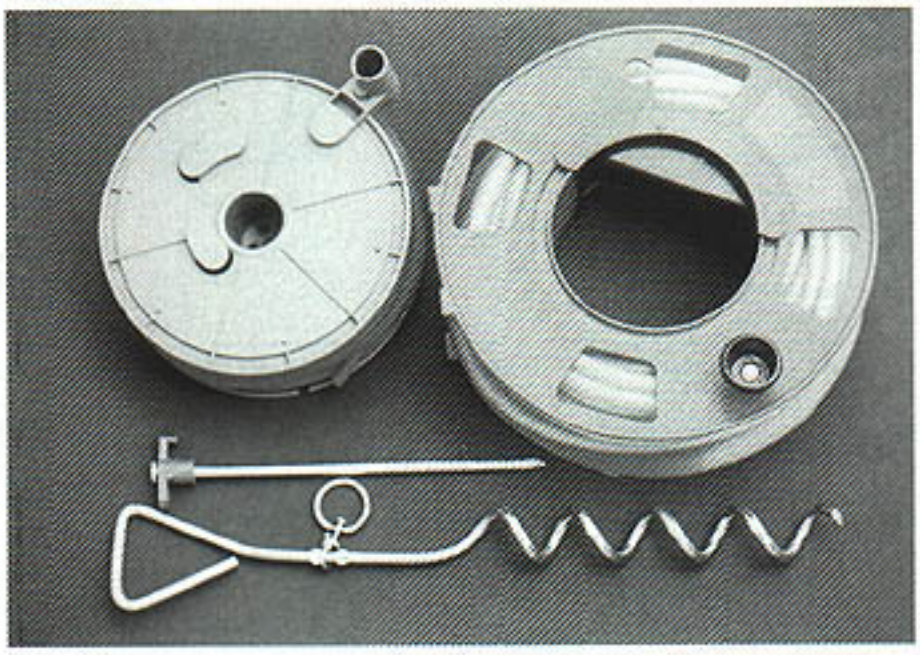
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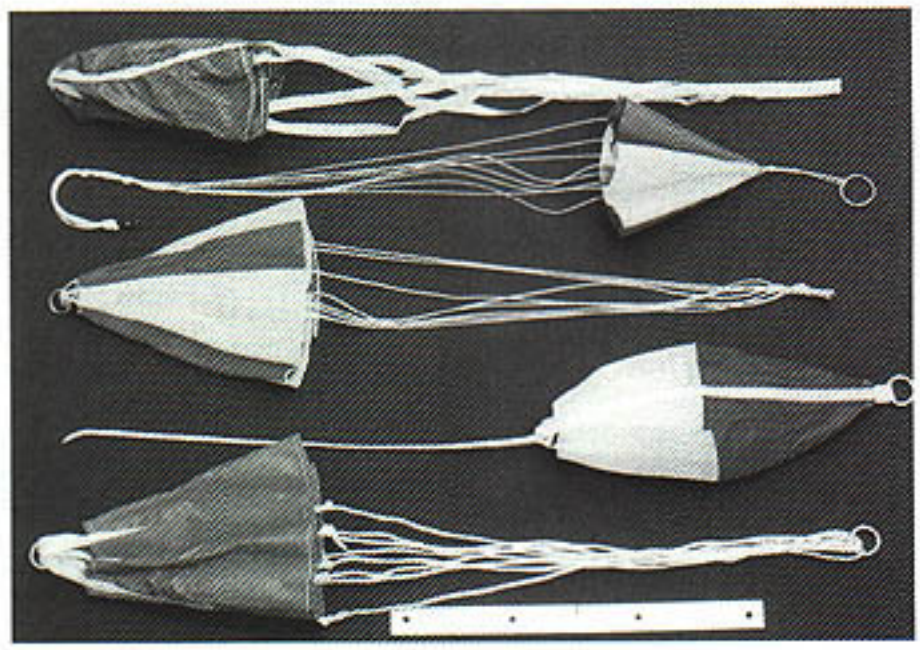
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RADIO CONTROL *SOARING*

Mike Garton, 506 NE 6th St., Ankeny IA 50021; E-mail: mike@iastate.edu



Extension-cord holders make great hi-start reels. Steel spike for dry/rocky regions, screw-in stake for soft dirt.



Parachutes, top to bottom: Dave Darling, Jimmy Prouty, Dale King, New England, Multiplex. Twelve-inch ruler for scale.

This month I've rounded up comprehensive information on hi-starts.

After a general description, I'll provide usage tips, construction tips, and many hard-to-find sources. Included with the sources is a comparison of most commercially-available hi-start and winch parachutes.

Hi-starts are the staple launching method for flatland sport fliers. This method is simple and inexpensive when compared to an electric winch.

The standard hi-start normally consists of 100 feet of surgical rubber tubing, tied to 250-500 feet of nylon line. The loose end of the rubber tubing is staked into the ground.

A parachute is affixed to the loose end of the nylon line. The parachute is designed so that it remains closed when the line is under tension.

The pilot stretches the hi-start, and attaches it to a belly hook on his/her glider. When released, the glider is towed up gently.

The process is similar to a child running to tow up a kite; the glider replaces the kite, and the rubber tubing does the work of the child.

As the glider passes over the staked end of the hi-start, the line falls off the belly hook and the airplane is free. If there is a breeze, you can launch roughly as high as the hi-start is long. The parachute's function is to lay the hi-start out downwind from its stake after each launch.

Hi-starts with less than 100 feet of rubber are usually called "up-starts." These are less expensive because of the small length of tubing. Given a decent breeze, an up-start can launch almost as high as a standard hi-start. The up-start does not launch well in calm air.

"Zoom-start" is a Northeast Sailplane Products (NSP) term for an upstart with oversized rubber. This type of short hi-start gives a brisk launch with a zoom at the top.

The zoom-start should not be confused with a bungee, which is mostly rubber. Airplanes can be launched horizontally at great speed using a bungee.

Hi-starts often need to be shortened for use in a small field. A good guideline is that the rubber should be 13% of the length of the field, and the line should be 45% of the length of the field. Thank Dick Williamson for providing this rule of thumb.

How far should you stretch the rubber?

Experienced fliers stretch the rubber until it feels right.

The tension needed depends on the weight and stall speed of the glider. A fish scale is handy to measure the pull of a new hi-start.

A tension of three times the weight will launch an average glider; floaters with high-lift airfoils may get by with a tension of twice the weight; and high-performance fast gliders need higher tension—three to five times their weight.

These numbers are not critical; plus or minus 25% won't matter much. You can use less initial tension on a windy day, and more tension on a calm day.

Count your paces when stretching the new hi-start. If the fish scale indicates that you are at three times the weight of the glider, note the number of steps. You can leave your fish scale at home when you know the required number of paces.

If you still have not reached enough tension when you've stretched the rubber three times its length, you need larger rubber.

It is wise to leave your model's flaps up when you throw the glider; let it build up some airspeed. You can try to make more lift when the glider is roughly ⅓ of the way up. You can lower the flaps a little at that point.

If you are flying an airplane with no flaps, ease in a little up-elevator with the transmitter stick. You know you are using too much when the airplane starts to dance from side to side.

When the model is ⅔ of the way up, I glance toward the hi-start stake. If the rubber is still stretched up in the air, I wait a couple more seconds, then use a zoom maneuver to extract the energy.

I raise the flaps and point the glider at the stake. Don't dive too far, or you will overrun the parachute. After the short dive, you can trade the excess speed for height.

If the rubber is not stretched, a zoom is pointless.

Hi-start Sources: If you are learning to fly, Hangar 9's G-force hi-starts are a good choice. They are preassembled, with very good usage instructions. Straight stakes and brightly-colored lines are used. I like the reels and lines on these better than the competing Dynaflite products.

Sky Bench makes a nice small hi-start: the Mini Hi-start for 1.5-meter airplanes, available direct or through NSP. The Mini Hi-start comes with laser-cut wood for a reel, 25 feet of mandrel-dipped 3/16 diameter tubing, which is made like a dipped candle, swivels, a stake, and 125 feet of line.

A brightly-colored plastic pennant is provided instead of a parachute. Parachutes are too heavy and draggy for these small airplanes.

This hi-start includes a nice documentation

package. In addition to assembly instructions, information is given on installing towhooks, launching, and hi-start-based contests.

Dream Catcher Hobby sells a similar product—the Micro-Launch-System.

NSP is the place to get a strong, high-quality hi-start. Costs range from $45 to $110 for the NSP Pinnacle. The spike, reel, and line are similar to the Hangar 9 products; however, NSP has a much wider selection of rubber sizes, and its parachutes and hardware are nicer.

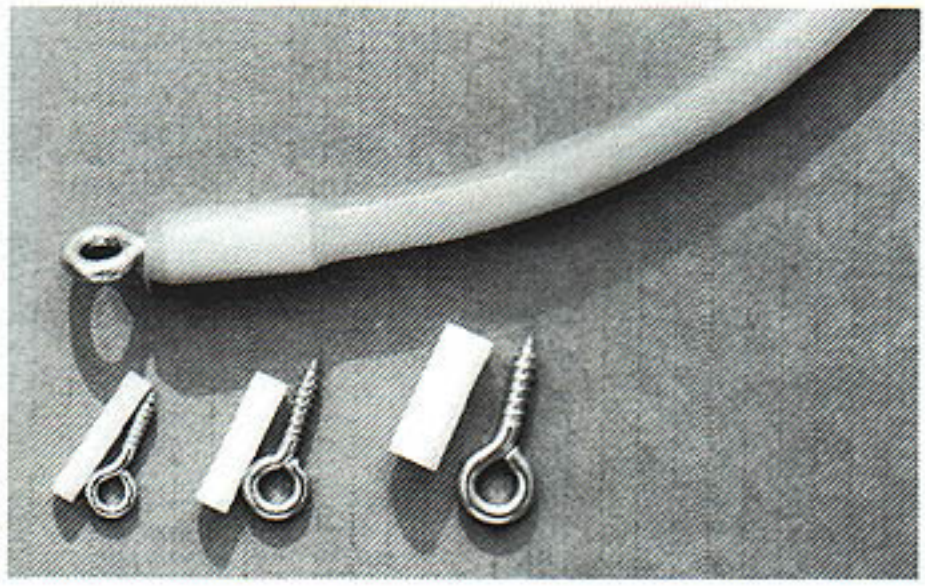
You can save a few bucks, and maybe get higher quality if you round up the hi-start parts yourself.

Hollyday Designs sells mandrel-dipped rubber hi-start tubing. You can read more about it on the Hollyday Web site.

Mandrel-dipping is a more-expensive process than extruding, it gives the rubber better properties, and it is less-stiff and more-stretchy. I use this type of rubber on my hi-starts.

If a hi-start ad does not read "mandrel-dipped," you can bet that it is not. If the ad reads "100 feet unspliced," that is another clue that the rubber is extruded.

Hobby Lobby, Sky Bench, Dream Catcher, Horizon Hobbies, and Tower Hobbies sell both kinds of tubing and assembled hi-starts.



Plastic spacers, screw-eyes make excellent connections for hi-start rubber tubing. Assembled connection shown.

Matching a Hi-start To a Glider: I stated that you usually want the hi-start's tension to be roughly three times the weight of the glider.

The tension is proportional to the cross-sectional area of the rubber tubing, multiplied by distance stretched.

The required tension could be achieved with small tubing stretched a lot, or large tubing stretched a little. The small tubing stretched a lot will provide a continuous, gentle pull during most of the launch. The large tubing stretched a little will give a large

Parts for JP Morere's Hi-Start Tubing Connection Method.
All dimensions in inches.

Tubing inside diameter	Plastic spacer outside diam.	Plastic spacer inside diam.	Plastic spacer length	Screw eye size designation	Screw eye length
1/4	0.375	0.171	1.0	#208	1+3/8
1/8	0.250	0.140	1.0	#210	1+3/16
1/16	0.187	0.115	1.0	#212	15/16

Table 1

Slow Flyers & Park Flyers

Party 2



Wingspan: 37.5"
Wing area: 287 sq in.
Weight: 10-11 oz
Wingloading: 5.5 oz/sq ft
Airfoil: Undercambered
Skill level: INT/INT
Motor: Supplied with reduction drive and prop

The builder can assemble the fully hand-built and covered Party 2 and install its radio, speed control and battery pack in a single evening. Light enough for some indoor flying but fast enough to take outdoor flying in light winds. The Party has landing gear, so take offs and touch and goes are possible (and fun!), but flies slow enough for backyard flying on the grass. Ask us about the Little Party, an even smaller, great flying Slow Flyer with plenty of performance.

Jodel



Wingspan: 39"
Wing area: 299 sq in.
Weight: 14 oz
Wingloading: 6.75 oz/sq ft
Airfoil: Flat Bottom
Skill level: INT/INT
Motor: Supplied with reduction drive and 3-bladed prop

This Parkflyer is a scale model of the experimental aircraft the Jodel. A low wing aircraft with generous dihedral and forgiving flight characteristics. The Jodel can land and take off in 15 feet! Assemble this fully built airplane and install a radio, speed control and battery pack in a single evening. The factory installed 6:1 reduction drive motor and three-bladed prop with a custom spinner.

Jonny Bee II



Wingspan: 40"
Wing area: 330 sq in.
Weight: 9 oz
Wingloading: 3.4 oz/sq ft
Airfoil: Undercambered
Skill level: INT/INT
Motor: supplied with reduction drive and prop

A slowflying ultra-light electric airplane. Ready-to-fly the Jonny Bee weighs just 9 ounces! This little airplane is very maneuverable and comes fully built with all surfaces covered and hinged. A real joy to fly, the Jonny Bee is one of our most popular slow flyers.

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burst of tension, then nothing. Continuous, gentle pull is much better.

Dick Williamson wrote a nice article on choosing the right size of rubber tubing. A link to an online copy is provided at the end of the column. Al Scidmore used similar methods in a December 1996 *RC Soaring Digest* article.

The measured "rubber spring rates" in these two articles differed by a factor of three. I concluded that Al was testing extruded rubber, and Dick was testing mandrel-dipped rubber.

The hi-start endpoint method shown came from JP Morere. I was pessimistic until I tried it. The plastic spacers and screw eyes are available at most full-line lumber/hardware stores. Spit on the spacer and shove it in. I have not had one fail yet.

If you are assembling an extremely powerful hi-start, wrap the outside with a line or plastic ties—just to be safe.

Hi-start line is usually braided nylon. Memphis Net and Twine carries a full line of white braided nylon that it calls seine.

Hempe Manufacturing sells spools of neon-orange braided nylon; the color makes it easier to find the hi-start after a launch. Brightly-colored fishing line also works well.

Monofilament line gives zippier launches because of its lower wind drag, but the braided nylon will last longer.

At least one fishing-line swivel is recommended. Large, strength-rated snaps

Have a suggestion about the magazine? Let us know on the *Model Aviation* Suggestion Line: Tel.: (765) 288-4899, extension 223.

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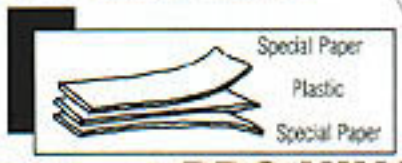


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and swivels are available from Into-The-Wind kite store.

Parachute Shoot-out: Each of the following parachutes has its merits. Some are suitable for hi-starts *and* for winches. A description and the picture of each one should help you make an informed choice.

In the least-expensive-available category, Dave Darling sells big 17-inch-diameter military surplus parachutes. He charges $6 for one, or $11 for two, including shipping. The top is closed. They are great, if you can deal with the olive drab color. They will last forever.

JT Models sells hi-start parachutes with a "one-year blow out replacement guarantee." These 11-inch parachutes are two-tone, yellow and blue. The top is closed. The line is sewn through. Welded top ring and swivel are included for $16. A ball-bearing swivel is included for $18.

Dale King makes 18-inch-diameter parachutes, which are two-tone, with some color choices available. These are the classic open-top design. The lines are sewn through. They come with one key ring for $10 plus $1 postage.

Multiplex sells 19-inch-diameter heavy-duty parachutes, suitable for winch-starting, or many years of hi-starting. These are two-tone, pink and gray. The lines are oversized, and two welded rings are included. The top is open. Nylon strap material reinforces the seams. These are the most durable conventional-design chutes in the bunch.

New England parachutes are sold by Slegers, NSP, and Michael Lachowski, and they cost roughly $17. This innovative design has a closed top and a closed mesh bottom. There are no shroud lines, so tangling is not possible. These are best for people who zoom-launch.

The downside is that they do not open very much. These chutes will not bring your line very far downwind. They would be perfect for use with a winch and an electric retriever.

Walt Dimmick, maker of the "little big winch," sells a similar parachute. His has a longer lead line and a ball-bearing swivel, for $17.

NSP sells "signal air" parachutes, which are bright red. Mesh covers the top, and the lines are sewn through. They cost $15.95. A winch version is available with heavy-duty ball-bearing swivel for $24.95.

Taylor Collins of Soaring Stuff sells red 10-inch parachutes for $15.95. I have not seen one, to comment more. **MA**

Soaring Web Site of the Month:
Hollyday Designs (mandrel-dipped hi-start tubing)
(919) 832-0199 (M-F, 9 a.m.-5 p.m., ET)
www.hollyday.com/

Hangar 9 (G-Force hi-start series):
Ask at your local hobby shop, or buy direct from Horizon Hobby.
(800) 338-4639
www.horizonhobby.com

Dynaflite (hi-starts):
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Sky Bench Aerotech (Mini Hi-start):
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www.skybench.com/

Northeast Sailplane Products (Pinnacle hi-starts):
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Online Reference:
Physics and Dimensions for Hi-starts by Dick Williamson
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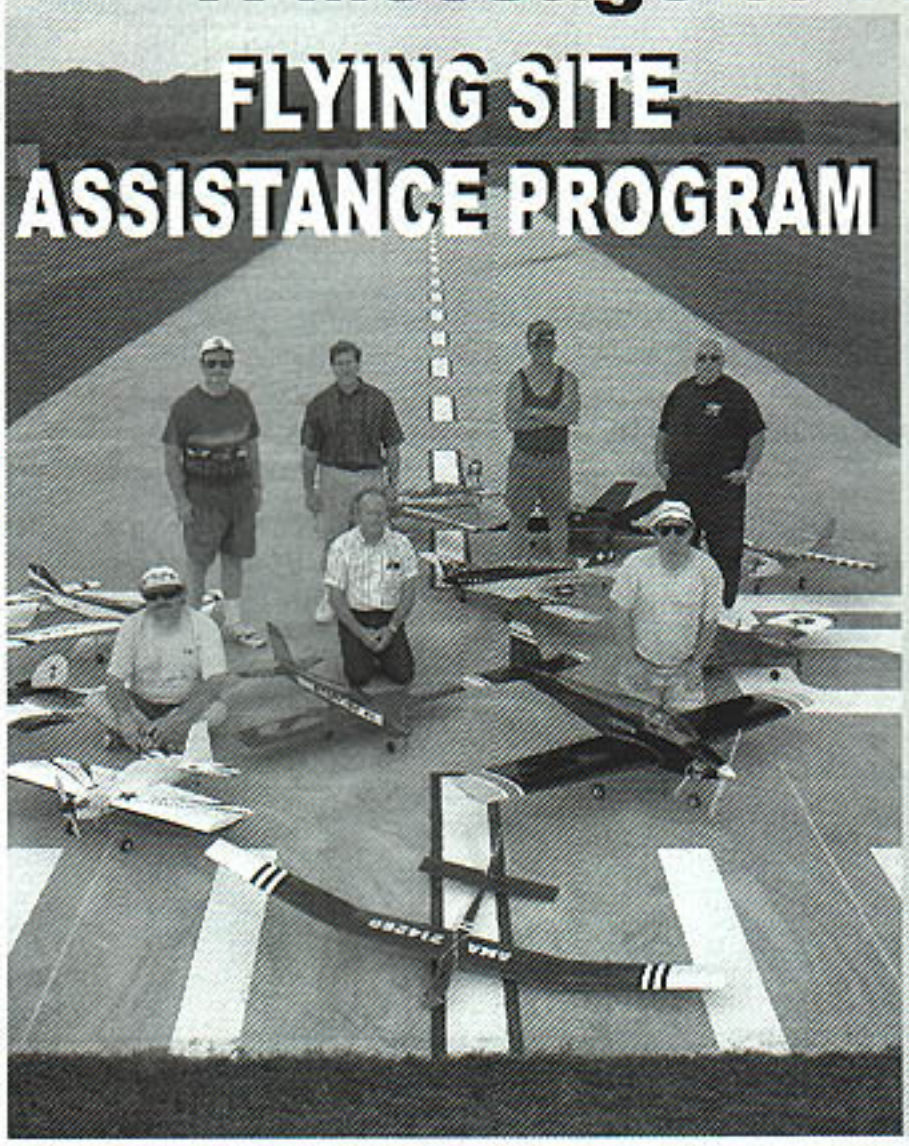
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A Message to All AMA Members



Help in maintaining and acquiring flying sites—it's the heartbeat of aeromodeling.

The Flying Site Assistance Program consists of volunteers who serve as the eyes and ears of the Academy of Model Aeronautics and its members. These volunteers are tasked with being the best-informed members in their local areas with regard to any public or private activity that could impact an existing or future flying site.

They accomplish this by reading the newspaper, watching television, listening to the radio, etc. The accumulation, dissemination, and distribution of such information could prove vitally important in maintaining an AMA Chartered Club in any given area.

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RADIO CONTROL *GIANTS*

John A. de Vries, 4610 Moffat Ln., Colorado Springs CO 80915

WELDON SMITH of Cary IL writes:

"The reason jets (transports) don't drop a wing into the wind on a crosswind landing goes back to the 707 and DC-8. Those engine pods were too vulnerable!

"I hope no one tries to slip into the wind as you describe it. With the rudder into the wind, the plane will slip *downwind.*"

Weldon is right, and I must have flown a different kind of airplane. The possibility of shearing off one of those underwing engine pylons is reason enough not to slip a jet transport into a crosswind landing.

As the man said, "Sorry 'bout that."

I still recommend a forward slip as a way to keep your Giant lined up with the runway in crosswind conditions.

Another letter contained a rather obscure request.

The reader admitted that he'd been building and flying "little ones," and he intended to go Giant. He wondered which Scale model was "the best" for his initial Giant Scale project.

The options were/are relatively unlimited, and it took me almost a week to sort them all out before I made a recommendation.

Part of the decision involved how competent the writer was as a builder and a flier. Since his letter indicated that he wasn't a beginner, the field of designs wasn't *too* limited.

Then the question arose: kit or scratch? The letter indicated that the kit route would probably be the proper way to go.

Then I ran up against the de Vries wall of prejudice; I favor aircraft of the "Golden Years" of pre-World War II models. Add the local preference for racing aircraft and airplanes from World War I, and you might be able to predict what I suggested as the proper first Giant project: the new Stinson Gull Wing kit from Top Flite.

I don't know if the writer followed my advice, but thank goodness he didn't ask which engine he should use. Hopefully the kit's instruction manual will provide that information!

The "prejudice" was working overtime; the Stinson Gull Wing was the first airplane I ever flew.

Any Scale modeler worth his/her "salt" knows that there's a great deal of reading to be done before, during, and after building and flying a Giant. Research is a fact of life, and it's part of the fun in Scale RC.

However, one information source seems to be neglected. It's right out there, in front of everybody who reads the model-airplane magazines: the advertisements!

You'd be surprised by all the mail I receive with questions that could be answered by even the most-cursory glance at the ads in the magazines.

Even more surprising is that most major model suppliers include a Web address or a toll-free telephone number in their ads—both of which make it much easier for the average model builder to acquire tools, plans, supplies, accessories, and special hardware.

Every once in a while, you come up smelling like a rose. I lucked into resolving something that has been bugging me for more than 20 years!

Give the ads a good look, and check the wingspans of the advertised kits/plans; the magic numbers are 80 inches for monoplanes, 60 inches for biplanes, and true ¼-scale for the rest!

Every once in a while, you come up smelling like a rose. I lucked into resolving something that has been bugging me for more than 20 years!

Way back then I had a Spitfire model that took a .60 engine, and I had a beautiful new Enya .60 that really fit the aircraft.

The Enya held up well before I rekitted the Spitfire, except in one particular area: if whatever fuel I was using in the model had a great deal of castor oil in its mix, it really crudded up the exterior of the engine.

I'm talking *a lot* of black, sticky, gooey varnish!

Fortunately, the Spitfire crash didn't bend the engine's propeller shaft, and it still ran well afterward—despite its ugly appearance.

The inside of the engine was nice and clean, so I oiled it up and put it away "until later." I didn't have the foggiest idea how to return the Enya to pristine condition, so it languished throughout the years in the "engine drawer" of my workshop.

That was until Dave Gierke (Dave Gierke Flying Models, Box 83, Bowmansville NY 14026) came to my rescue; he sent me an eight-ounce can of Demon-Clean™ engine cleaner to try out.

After plugging the old Enya's exhaust stack and intake with bits of paper towel, I applied the cleaner with an "epoxy brush."

As recommended, I protected my hands with rubber gloves and used a plastic hood to protect my eyes and face.

The liquid was applied over an old cake pan (the instructions suggest a pie tin, but I didn't have one), and it went on easily.

To make sure every nook and cranny was covered, I drilled a hole in a hunk of wood as a stand-off engine holder (actually, it was one of those free paint-stirring paddles you get when you buy a gallon of paint). I tightened it up on the prop shaft.

I let things set for approximately 45 minutes after thoroughly applying Demon-Clean™, then I brushed the engine under hot tap water. I used an old toothbrush for this exercise, and really scrubbed things well.

Wonder of wonders—I had a like-new Enya .60 after I dried it off completely.

Dave's instruction sheet also touts Demon-Clean™ to remove interior varnish. The cleaning technique is the same, except that you have to disassemble the engine.

The only caution the instructions note is that the cleaner shouldn't be used on painted or anodized surfaces. Demon-Clean™ can be left on metal surfaces for weeks, with no adverse effect. It's great stuff!

If you're antsy about disassembling a varnished engine for cleaning, Dave sells a book detailing how it's done.

If you need a "pilot" for your Giant Scale model, retreat to your closest "mart" or drug store.

Wend your way to the section of baby shampoo and bath bubbles—now they're packaged in bottles with plastic cartoon heads for tops. All the tops need is a set of shoulders, and Toy Story®'s Woody® or Buzz Lightyear®, Mickey Mouse® or Minnie Mouse®, or whoever will "pilot" your latest creation.

A spritz of clear epoxy should make the pilots fuelproof, in case you're using a glow engine in your Giant.

Have fun, and I'll be with you next month if the creek don't rise! MA

RADIO CONTROL *ELECTRICS*

Bob Kopski, 25 West End Dr., Lansdale PA 19446

THIS COLUMN will cover a meet announcement, an SSC "Assembly Aid" and related comments, some reader input, and soldering Ni-Cd cells.

Gordon Wheeler of Central New York's Voltaires Electric Club wrote to tell me of the Voltaires 15th Annual Electric Fun Fly scheduled for July 15-16. The meet will be held on the Grenadiers Flying Field in the Syracuse area. I've heard that last year's meet surprised everyone with a tremendous turnout, so I'd expect more of the same this year!

You can get all the details from Gordon at 5 Old Farms Ln., Cazenovia NY 13035; Tel.: (315) 655-9068; E-mail: agwheler@dreamscape.com; or from Garret Wikoff, Tel.: (315) 695-4271; E-mail: wikoff@ibm.net.

Reader comment continues on the Sport Speed Control (9-10/99 *MA*). A clear picture of the most-common problems is emerging.

By far, the largest trouble category is "miswires," with a subcategory of "missed wires." All this is perfectly understandable; the SSC has a lot of parts and therefore a lot of parts connections.

I certainly can understand how some parts get installed in the wrong holeboard holes, or perhaps "backward" in the case of polarized parts like diodes and some capacitors. Yet in every case I know about, when the miswire was corrected, the SSC worked properly.

As for totally "missed wires," these are among the wire jumpers that get installed near the end of the Signal Board Assembly Sequence. This problem is also easy to understand: there are several such wires to install, and it's near the end of the assembly when the board is pretty full of parts, and when everyone is anxious to just try out their new assemblies.

I can't do much about "miswires" other than to caution you, but I have come up with an "assembly aid" to help minimize those "missed wires" problems.

Please refer to the "Last Wires" drawing, which can be used in conjunction with steps 37, 38, and 39 of the Assembly Sequence (page 71, 9/99 issue) to help assure all final wire jumpers are in, and are in their proper places.

One other reader SSC input is worthy of comment:

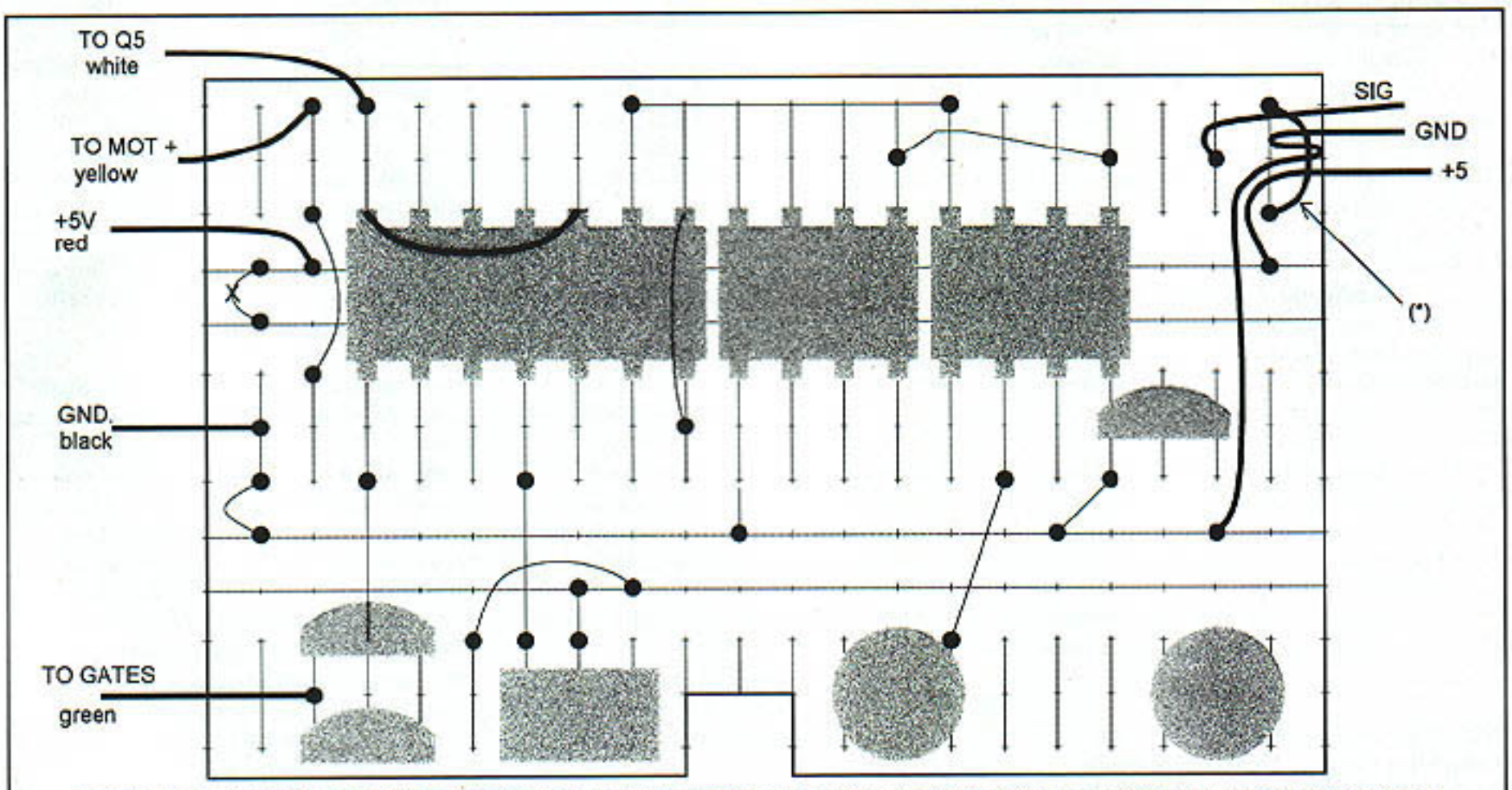
It turns out that if you should have more than one (say, several) errors in your SSC assembly, the difficulty of troubleshooting goes up dramatically; multiple errors can interact in a manner to seemingly defy a logical troubleshooting progression. This circumstance is not peculiar to the SSC, but comes to bear on many electronic circuit assemblies.

Given this, I again encourage you to be careful in the assembly of your SSC. A little extra time spent on careful assembly can pay off "big time" with an instantly great-working speed control.

I have not heard of any SSC that did not work as described, when built correctly. And my offer holds: If you experience any difficulty with the SSC, I'll be glad to help in any way I can.

Universal Large Pack Slow Charger: Wow! is my reaction to your reaction to the March and April columns! After 17+ years of writing this column, I've not experienced as large and fast a reader reaction. In short, "everybody" wants one!

Several readers wanted to know how soon construction information would be available. Others had companion technical questions. Still others offered suggestions or requests—mostly to expand or alter the ULPSC's already impressive capability. Two readers commented on their success with other Electric/electronic items from *MA* in the past, and just wanted more.



NOTE: LIGHT WIRES ARE BARE BUSS WIRE, HEAVY WIRES ARE INSULATED FLEXIBLE EXCEPT (*) - INSULATED SOLID

SPORT SPEED CONTROL – SIGNAL BOARD ASSEMBLY AID – "LAST WIRES"

But the most impressive part to all this is that the April issue has only been out 10 days or so as I write this column; you folks really jumped on this one! *(Editor's note: Look for the ULPSC in an upcoming issue of* MA.*)*

I'll try to incorporate your requests and suggestions as best I can, because some are inherently appealing to me as well, and I'm building another ULPSC or two anyway. A sincere *thank you* for your interest.

Some folks have a bit of confusion with regard to the term "constant current." Many chargers are of constant-current design, which means that they deliver to the battery under charge a current level that is unaffected by the actual cell count of the pack being charged.

For example, the Astro 110D, a favorite of mine, delivers a high-rate charge to motor packs whose value is set by the control knob and not by the cell count of the pack being charged.

Similarly, the Universal Large Pack Slow Charger delivers a slow-rate charge whose value is controlled by the adjustment knob setting and not by the cell count being charged. In fact, the only things that affect the charge current value are not connecting any cells—open circuits cannot have current flow!—or by exceeding the design cell count of 42. (Beyond this number, the charger runs out of what is called "compliance" for an electronic current source.) Hence the term "constant current."

The resulting pack voltage is strictly determined by the pack behavior while being charged, and not by the charger, since the latter does not output voltage *per se*.

Assembling motor packs can be a frustration for many, including me, but I've found one way to ease this task.

Soldering cell ends goes *much* easier if the cell ends are not only clean but *well-polished*. I believe this to be the case whether the cells are soldered end-to-end or interconnected with braid or metal straps (which is what I do).

I've tried many polishing techniques, but in recent years have stayed with one that's proven best for me.

3M® makes a 4⅜ x 11 Metal Finishing Pad, part # 7414NA, that's available in hardware stores and is intended for "sanding" metalwork, but it's not "sandpaper." Rather, it's a synthetic mesh material of some sort—somewhat like a kitchen pan-scouring pad but without any soapy-stuff. It can usually be found in the hardware and/or paint departments at discount stores.

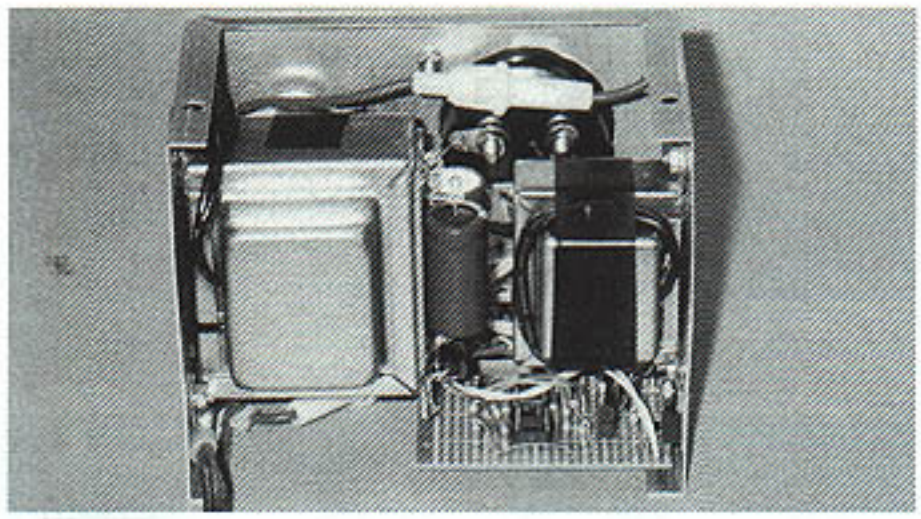
I've found that holding this pad material against a cell end with finger pressure and rotating the cell back and forth produces a brightly polished, easy-to-solder cell surface that seems to "attract" solder! (It actually makes the cell end much more solderable by making it much easier for the solder to wet the now-clean-and-bright metal surface.

This product does a great job, but the polishing process does nevertheless get tiring for me when I'm assembling many cells; it's a lot of handwork. To help with this, I fashioned a "buffing wheel" by cutting a 1¾ diameter circle of the 3M® pad and mounted it on a 3/16 bolt between two one-inch fender washers and a nut. I chuck this in my drill and polish away on those cell ends! Works great.

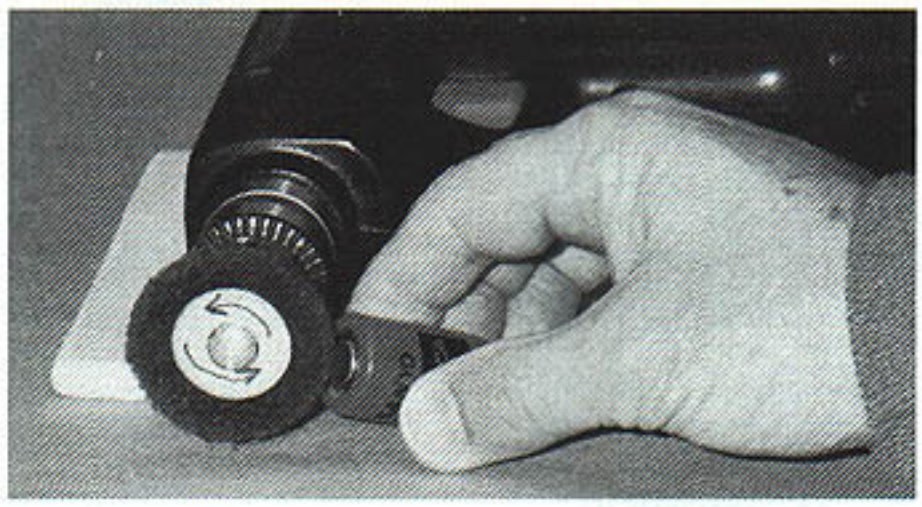
Good soldering technique is equally important. Often folks get into trouble here by trying to use a light-duty iron—one that's of low wattage and/or has a small tip, such as might be used for circuit-board assembly.

It's important to have an iron with a sufficiently hot and sufficiently massive tip that the cell mass will not cool the iron tip when the latter touches the former. The metal mass of the iron must be "competitive" with the mass of the cell in order to maintain tip temperature long enough to assure a good solder flow. That cannot happen if the cell body "drains" the heat from the soldering iron tip too quickly; both wind up "in the temperature middle."

Some folks confuse the above problem with that of just too low a tip temperature. If the iron is hot enough to easily melt just solder when touched, it's probably hot enough. The trick is to keep it this hot long enough—and that's where thermal mass comes into play.



Inside the Universal Large Pack Slow Charger. Transformers, meter take up most space. All parts readily available.



Polishing a Ni-Cd cell end. Polishing wheel made from hardware store 3M® Metal Finishing Pad.

But "long enough" is still not very long. In fact, it's very important not to "soak" heat into the cell; you do not want to keep the iron in sustained contact with the cell. You need to just "get in and get out" quickly, but still with a good solder wetting and flow. If you seem to have to "play" the iron on the cell end to make a connection stick, it's not a "big enough" iron and/or the temperature really is too low.

I have no way to accurately quantify how long it takes me to make a cell connection, but I'm estimating that iron contact with the cell is never longer than two seconds. I now use some new more-costly temperature-controlled soldering equipment, but in the past I used a simple Ungar handle/element combination. These products are no longer readily available. Although I have no need for another iron now, I know that lots of folks would like an economical recommendation; I'll look for a good suggestion to make in a future column.

Remember that any iron used for this battery assembly job must be hot enough to melt solder easily, and it must be massive enough that it retains its heat long enough while in contact. And such an iron will "recover" (return to temperature and be ready for the next solder joint) very quickly.

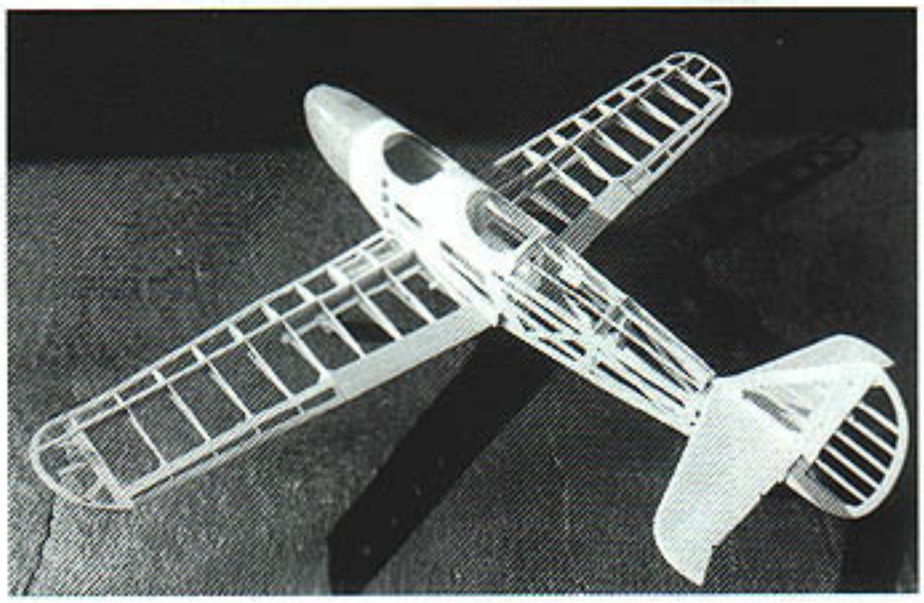
The "down side" to all this is that such an iron is "too big" for those small electronic assembly jobs, so many modelers really need two irons to cover the application range. I have three, but I do a great deal of soldering.

Do not forget the solder. I've used many solder brands and "formulas" throughout the years and I have my favorites, but a simple 60/40 rosin-core solder such as Radio Shack 64-005 (and other numbers in this series) works just fine. More on this general subject in the future.

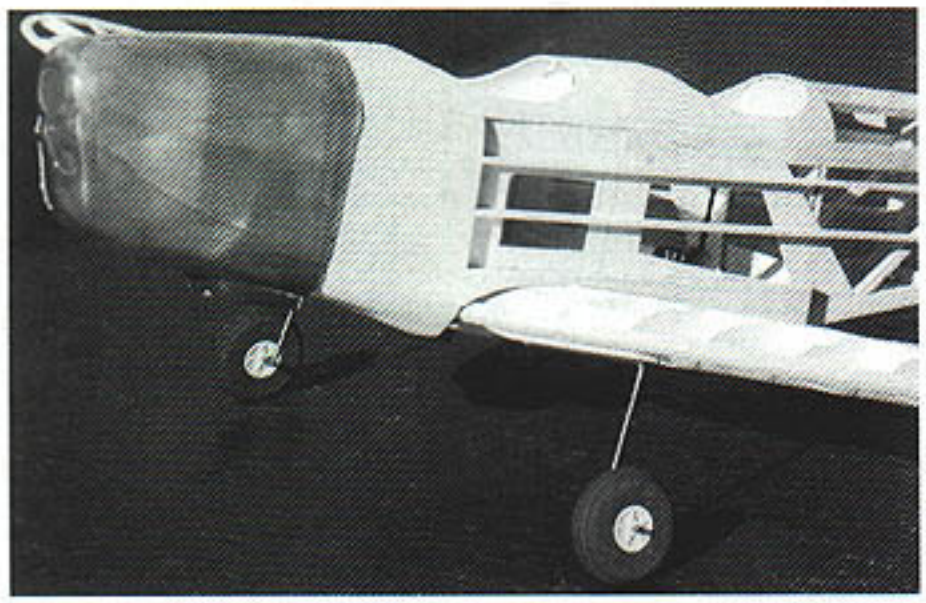
Thus ends one more column. Please have a great Electri-flyin' summer, and please don't forget to include an SASE with any correspondence for which you'd like a reply. MA

RADIO CONTROL *SCALE*

Stan Alexander, 3709 Valley Ridge Dr., Nashville TN 37211; E-mail: onawing@mindspring.com



Overhead view of the PT-19's basic airframe. The framework has been completed; it's time to add sheet balsa.



A view of the author's PT-19 with the stock wire landing gear that comes with the kit, which has been plugged in.

FOR THE NORTHERN hemisphere, summer is a time for swimming, playing golf, baseball, and Little League, soccer, water skiing, camping, and doing 100 other activities, including—oh yes, flying models.

There are so many activities, or hobbies if you will, to take up what little spare time we have during the summer, that modelers might need to schedule time just to fly!

Many adults with children are often at baseball games and other sports, and most of these activities center on the family. You might include a family picnic next time at the flying field.

You need a little time for the modeler or modelers in the family. It may only be one day a week that you can schedule time to go to the field, or you might be able to stop on the way home from work for a couple of flights.

Let me know your ideas for finding time to spend at the local field.

Remember, you can always cut grass on a windy day.

PT-19 Update: Changing the details of the wing has been interesting, but the framework is finally completed; it's time to add the sheet balsa, to complete the scale illusion of plywood covering.

Nobody actually thought these little trainers would still be flying more than 60 years after they were first produced.

The wings on the full-scale PT-19 trainer were covered with plywood, then fabric was added. We will use balsa, and cover with fabric—much the same as the full-scale.

The more I look at the landing gear (mains), the more I believe that the Robart struts can be used, but they will have to be "enhanced" to make the Scale appearance complete.

Ailerons were built per the plans, with a plywood insert for the control horns. After adding the horn on each aileron, they will be ready to cover.

The next item on the ailerons will be hinging to the trailing edge, as per the full-scale aircraft. This will require using a homemade fixture for drilling, then adding the Robart scale hinges.

Paul Burke has some great ideas, which were not included in the kit, about adding flaps to the wing.

To modify the kit for flaps, map it out before you start the wing construction (see the May 2000 issue).

I used 1/16 plywood, checking my three-views against the wing. Use a band saw to cut out the flap material to the proper length.

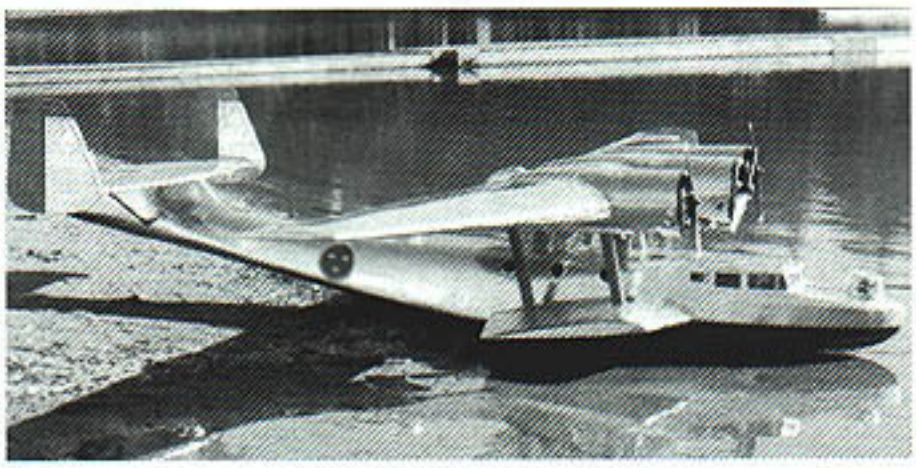
In the measurements I came up with, the leading edge of the flap was 15½ inches, and the trailing edge of the flap was 15⅛ inches.

I followed Paul's suggestion, using the ¼ square balsa stock for the leading edge, which needed to be rounded off.

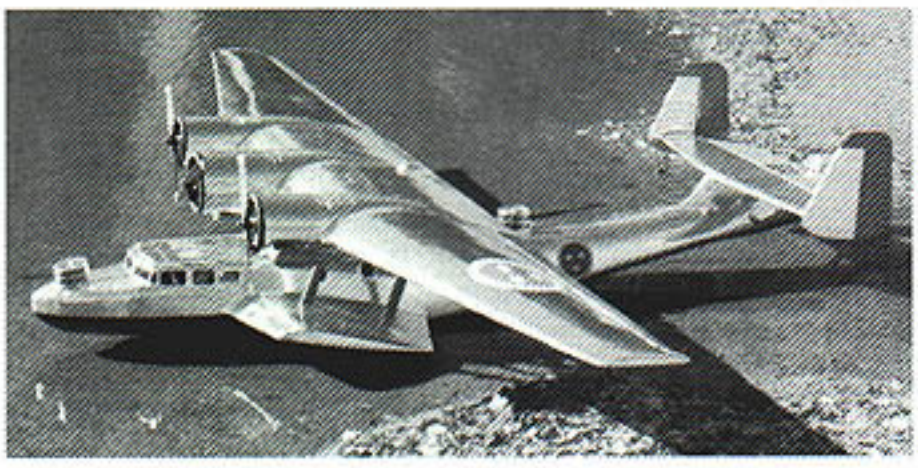
I wanted to increase the rigidity of the trailing edge, so I added a strip of .007 carbon fiber from Bob Violett Models, which carries a full line of hobby products.

Add the scale inner ribs to the flap, and the basics are finished.

The information for the flaps came from



Arvids Jaur (Sweden) built his Do 24 flying boat from plans by Gene Falada, who operates Sea-Clusion Aeronautics.



Arvids Juar's Do 24 model incorporates the scale trimotor configuration, and it was built to a wingspan of 88 inches.

one of the three-views I've used for construction. Some three-views show flaps detail, and others do not.

Next time around, we'll hinge the flaps and ailerons, and hook up the servos to see if everything works. I had hoped to do the hinging for this column, but I didn't make it.

The basic airframe is assembled.

I don't know about anyone else, but it usually helps me to start assembling the components to get an idea of what things are going to look like when I am finished.

At this point, it also helps to check the dimensions—not to see *if* you've made any mistakes, but *where* you have made mistakes. Hopefully you can correct them at this point.

There is still a great deal of work to be done, but it is coming along. Major portions of this kit have been "reengineered," which has taken an incredible amount of time.

One photo gives you an overhead view of the basic airframe, while another gives a view with the stock wire landing gear that comes with the kit, which have been plugged in.

I'm looking forward to beginning a plan-built model next.

Speaking of plan-built models, Arvids Jaur of Sweden built a Do 24 flying boat with an 88-inch wingspan, shown in photos.

The model incorporates the scale trimotor configuration, and was built from plans by Gene Falada.

Gene operates Sea-Clusion Aeronautics, 22W070 Byron Ave., Addison IL 60101. His plans include some aircraft you don't often see modeled, including many of the German World War II flying boats. His latest project is the CAMS 53 French flying boat.

For a Sea-Clusion catalog, send an SASE with two 33¢ stamps.

Letters: Paul Burke wrote about his PT-19:

"My PT-19 is a pussycat! Flies extremely well. Started with a Saito .91. Probably as close as scale power as it's possible to get. Then I tried an O.S. 1.08—serious overpower! The O.S. 1.20 is just right. Enough power to fly out of problems, and it flies at partial power nicely."

Paul has a Web site, www.networkone.net/~pjburke/pt19.htm, that has photos of his model and a drawing that you can download, detailing adding flaps to this WW II trainer.

Great job, Paul!

Following is a letter from Terry R. Thorpe:

"I'm building a Dynaflite PT-19 at this time. Can you tell me the Robart shocks part number that you used for the main gear, and what did you use for the tail wheel? I think I will take your suggestion to sheet the entire wing. I would like to get some information regarding the split flaps you talked about; can you point me in the right direction? Enjoyed your article.

"One of the things I've found in this hobby is that people are really helpful. I got a second-hand Lazy Ace for my birthday last year, and little did I know that the designer of that airplane was Chuck Cunningham—a Fort Worth Thunderbird member, same as I am. He was very kind in answering questions and making suggestions. I think the highlight was when I got him to autograph my Lazy Ace wing. Again, you guys are really nice to help out."

Documentation Source: Aviation Usk has a combination of hard-to-find plastic kits, parts, books, and documentation.

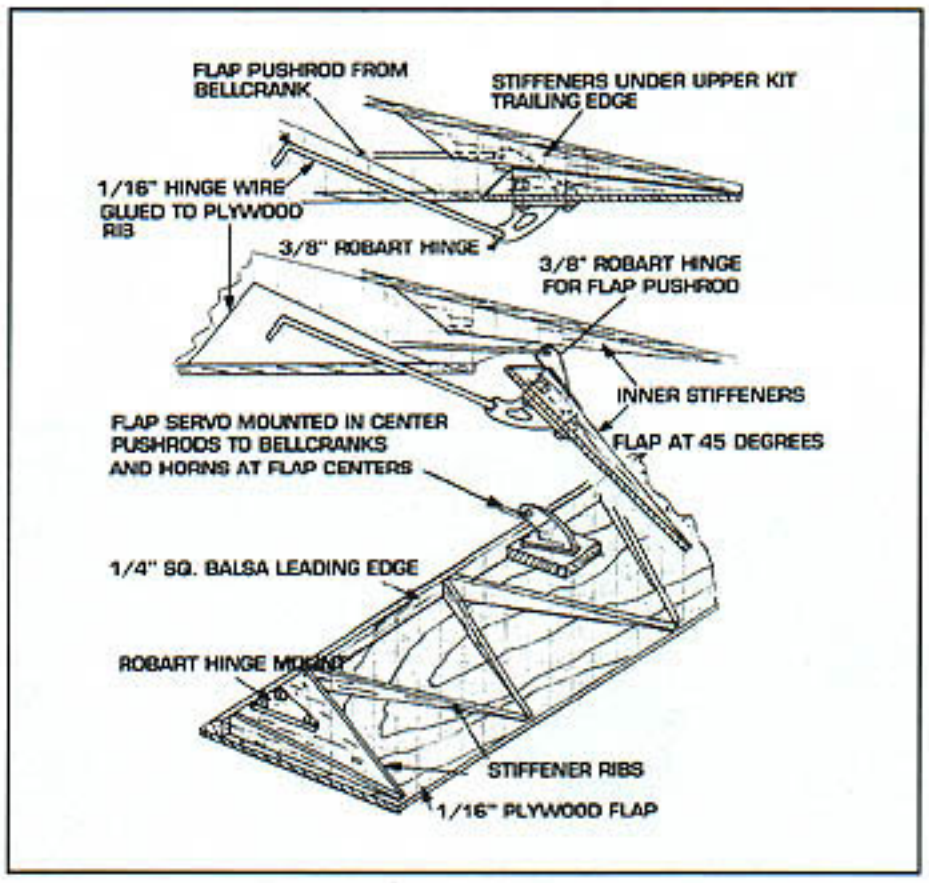
The company produces its own plastic kits, parts, and decal sheets, and publishes several historical aviation books, such as the *Aces and Wingmen II* series.

Scale modelers love to find the Maru Mechanic series on "heavy metal" WW II aircraft; Aviation Usk has #5, #10, #13, and #15 in stock for $44.95 each, plus the normal shipping.

The company also has the Aviolibri Italian books, with the following titles: *Macchi MC 205, Reggiane Re 2005, Fiat G.55,* and *Hughes 500.* Titles from Poland are available on rare subjects, including the Fokker D.XXI.

For a catalog, contact Aviation Usk, Box 97, Usk WA 99180; Tel.: (509) 445- 1236; Web site: www.povn.com/avusk.

Books: Several years ago, Mike Welshans gave me the name and address of Aeroplane Books—a great source for new and used aviation-related books.



Paul Burke's drawing, detailing adding flaps to the PT-19.

Mike said that Aeroplane is very good about following up on requests for used books it doesn't have on-hand, such as the one on the Messerschmitt 109. It's not in stock, but my name is on the list of customers who would like to obtain it.

Aeroplane Books has new volumes, such as *The Official Monogram US Navy & Marine Corps Aircraft Color Guide—Vol. 2* (1940-1949). It also has Vol. 4 of this series in stock.

From the books to the packaging, Aeroplane Books takes special care to make sure you're satisfied.

For out-of-print and hard-to-find books, contact Aeroplane Books, 114 Deer Path Rd., Williamsburg VA 23188-2208; Order line: (800) 447-8890, questions: (757) 253-4814; E-mail: aerobook@hroads.net; Web Site: www.aeroplanebooks.com.

A new, unofficial event is receiving a trial run at this year's Mint Julep Scale Meet; Scale Aerobatics will be flown, according to most of the rules governing the Fun Scale event.

The static score is 0-5 points—the same as in Fun Scale. In flight, there are five optional maneuvers and five mandatory maneuvers. No mechanical options are scored, and the realism score is based on the Scale prototype and aerobatic maneuvers chosen.

This event might be a new rule proposal in the near future. Mint Julep officials hope that contestants who usually enter Open Fun Scale will try this event for a change.

There are so many Aerobatic purpose-built aircraft entered in Fun Scale, this event seemed natural.

Good luck, guys!

The US Scale Masters Championships will be held at Dayton, Ohio, at the US Air Force Museum October 11-15.

This national Scale championships for Expert and Team Scale classes is the culmination of a nationwide series of qualifying contests, including Top Gun and the AMA Scale Nationals. Static and flight competition will be held at the facility.

The Championships banquet is planned for inside the US Air Force Museum, underneath the wing of a B-29 bomber. There is "open cockpit night" for all of the guests, where the barriers are removed and they are allowed to get up-close and personal with many of the historic aircraft.

For more information, E-mail Earl Aune at Jenseninc@msn.com.

Those winter building days are over now, so send in some photos and show everyone what you've been working on. Please add dimensions, engine and size, etc. Thanks!

Well, that's about it this time around. Remember, keep 'em flying and check those batteries!

Fair skies and tail winds. MA

RADIO CONTROL *SCALE AEROBATICS*

Paul Kopp, 1013 S. Sedona Ln., Anaheim CA 92808



Former Masters competitor Ryan Taylor with the fuselage from a Radiocraft 35% Staudacher ARC. Very light construction.

AS STATED in the May column, Scale Aerobatics airplanes are Radio Control (RC) models of dedicated full-scale competition airplanes.

It was also stated that some of the dominant aircraft are Extras, CAPs, Edges, and Gileses—designs that have been attractive to the RC kit companies. There is also interest in more-traditional entry-level aerobatic designs, such as the Decathlon and the Citabria ("airbatic" spelled backward).

One goal of this column is to recognize the diversity within Scale Aerobatics, and not focus strictly on high-performance designs.

Another comment was the benefit of having products or ideas proven in competition before they are introduced to the sport market. Much of the material in future columns will be based on what has been proven in competition, but there will be little emphasis on subject matter limited to Scale Aerobatics competition.

Persons with questions about competitive Scale Aerobatics should visit the IMAC (International Miniature Aerobatic Club) Web site at www.mini-iac.com, which is a huge source of information.

This column is intended to reach and benefit a general audience—the majority of which are sport pilots, flying 60- to 80-inch-wingspan airplanes.

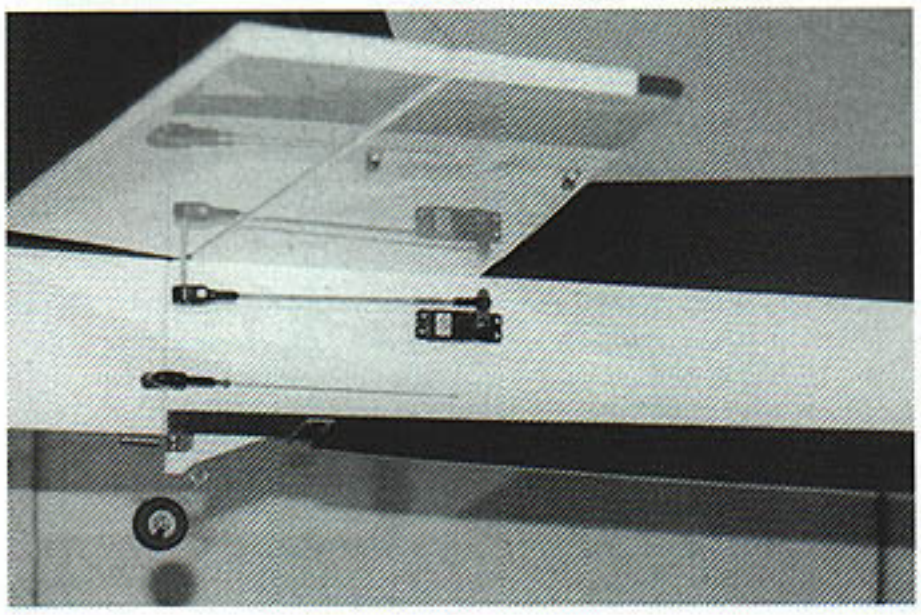
Where possible, I'll discuss topics of interest to competitive *and* noncompetitive pilots, such as propeller selection or building tips. There is always interest in "how to do it better"—especially where airplane setup or building are concerned.

Issues related to building and flying Scale Aerobatics airplanes increase with wingspan. Most airplanes sold within the Scale Aerobatics market range from 60 to 80 inches in wingspan. Biplanes (which have remained very popular) have slightly shorter wingspans.

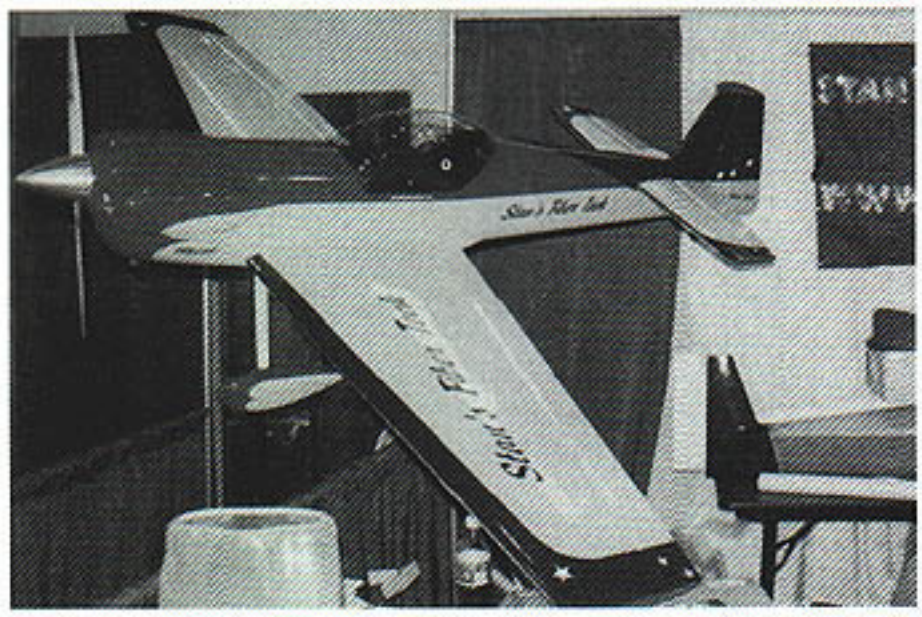
The 60- to 80-inch range has an interesting quality, which is less true for smaller or larger airplanes. They can be flown with low- or high-end engine/radio components, and produce very different results, depending on the final selection of equipment.

In addition, the flight characteristics of a 60- to 80-inch-wingspan airplane may be greatly affected by the choice of engine and the capabilities of the radio.

Although the number of suitable engines for a 60-inch-wingspan airplane is extensive, the usable range of engine displacement is narrow.



Rear-mounted servo in 25% Aeroworks Edge 540. Du-Bro/Rocket City hardware, Cermark aluminum arm, Nelson cable ends on rudder.



Stan's Fibertech's beautiful all-composite 33% CAP 232, on display at AMA Convention 2000. It's powered by a BME 100.

The usable displacement range of airplanes exceeding an 80-inch wingspan may be quite broad, but the number of actual engine choices decreases, compared to smaller glow engines.

Airplanes less than 60 inches in wingspan benefit marginally from features on the higher-end computer radios. Conversely, the setups of larger Giant Scale airplanes—at or above 80-inch wingspans—are greatly facilitated by using the features on mid- to high-end computer radios.

One such capability is running dual elevator servos—the subject of this month's column.

Many fliers favor dual (or "split") rear-mounted elevator servos, because they provide a number of benefits:

The extra servo provides redundancy in the event of a servo or control-surface failure; they are easy to install, and they eliminate the need and weight of an internal pushrod; and two servos provide better trim accuracy than can be accomplished by a single servo.

There are four basic methods of mounting dual-elevator servos:

• using a reversed servo positioned opposite the other servo;

• using a "Y" connector, and staggering the servos' arms on opposite sides of the fuselage;

• using a Y connector with a built-in or external servo reverser, and positioning the servos opposite each other;

• reversing the servos electronically using transmitter mixes, also with the servos mounted directly opposite each other.

With the exception of the staggered "high-low" mounting, the basic geometry of the installations is the same. There are differences in how well they work.

Some manufacturers sell "reversed" servos, which have rotational movement opposite that of regular servos.

Using a reversed servo allows the builder to mount the servos directly opposite each other, and "join" them using a Y connector. The pushrod geometry and movement of the elevator for each servo is the same. Each pushrod can be adjusted mechanically if one needs trim adjustment.

The drawback of this method is availability—many hobby stores do not stock reversed servos, or they may not be available for a particular model servo. Reversed servos are also typically slightly higher in cost than regular servos.

The obvious advantage is that they will work with lower-priced radios.

The next method is using regular servos that have the same rotational direction.

The opposing servo cannot merely be turned around. Instead, the servo arms must be offset in a high/low configuration to get the proper direction of travel.

Although this method has been widely used, the geometry of the pushrod changes asymmetrically as the elevator moves, and the result is unequal throw. This may cause trim changes, depending on how much throw is used.

At low or mild throws, the difference is minimal—sometimes not even noticeable. However, the problem becomes apparent when the deflection values go into higher, or "3-D" range.

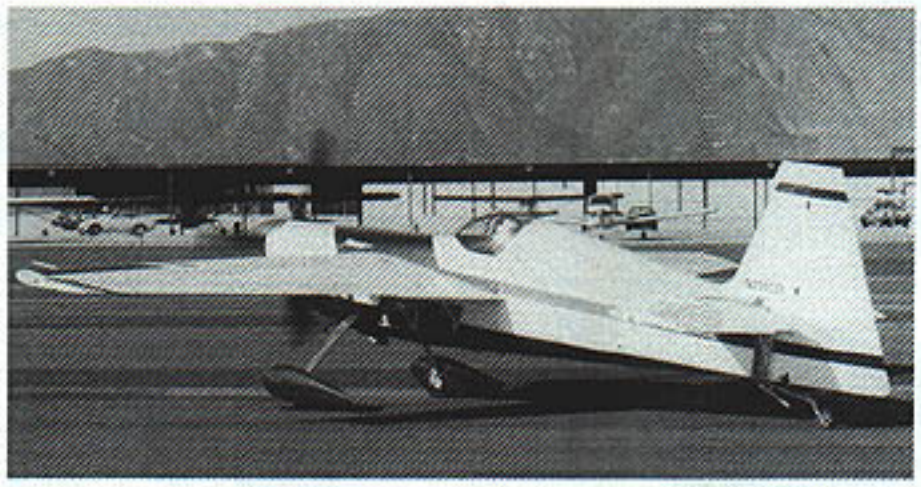
Many pilots have used this method successfully, but it is best-suited for casual flying— not for precision or 3-D flying.

The next method is using a "Y" cord with a reversing circuit—sometimes including a centering potentiometer. These are available from hobby stores, or from RC companies specializing in electronic components.

The servos can be placed directly opposite with a reversed Y, and the geometry of the servo arms will be the same, as with the reversed servo described earlier.

If the reverser has a centering pot, small changes can be made to the servo-centering to align the servo arms.

This method has worked well for a number of modelers. The reversers are relatively inexpensive, and they work with virtually any radio.



Some pilots say that full-scale Edge 540 is best aerobatic performer available. Note sighting windows directly under wing.

Reversers that use a centering pot may need an occasional adjustment to correct "drift" (change from neutral). The reverser should be mounted where it can be reached with a small screwdriver.

The last method requires using a transmitter program mix that slaves the second servo to the primary channel.

This requires a transmitter with a mix that provides for independent program mixes, and allows the same trim to control the master and the slave channel. (If it does not have the latter, the elevator trim will only affect one side of the elevator.)

It isn't always clear in the radio literature if a particular radio has this capability, or how to set it up, so do some research before you invest. (Questions such as this are well-suited for competitive pilots, since most of them use independent setups for rear servos.)

Using a transmitter mix allows the two servos to be set up independently, but to be driven by the same stick. The independent control provides accurate positioning of the arms. Furthermore, this setup offers precise alignment of the servo geometry by using the travel adjustment for each servo.

Regardless of which installation method is used, the control response of rear servos is far superior to a single servo and a "V-end" pushrod.

The problem with the single pushrod is that as the servo arm moves in a radial motion, so do the pushrod ends. As the servo throw is deflected into high ranges, one side of the V is displaced, causing unequal throws in the elevators.

Some modelers try to overcome the radial movement with rear-mounted fuselage guides, but they are not practical on larger airplanes.

Fortunately, the kit modifications for rear servos are minor, requiring only the building of a small servo mount on each side of the fuselage.

Servos are connected to the receiver with a single extension if a single Y is used, and two independent extensions if transmitter mixing is used.

AMA Convention 2000: Although the show is several months old, the sights are still fresh. Having attended the show for the last few years, this year definitely marked a turnaround in attendance and product representation.

A variety of Scale Aerobatics airplanes represented by a number of different companies dominated the kit and ARF (Almost Ready to Fly) landscape. Moreover, a number of companies were first-timers or recent entrants in the industry.

Notable were a new 33% Extra 300L ARC (Almost Ready to Cover), designed by Harry Taylor and sold under the Radiocraft name; Jerry Bien's AirWild Hobbies and his 80-inch Edge 540T ARC; Yellow Aircraft's new line of impressively-finished Scale Aerobatics ARFs; and the well-known Dave Patrick and the Signature Series Pitts S-2B.

Stan Kinsey of Stan's Fibertech displayed a composite 33% CAP 232. Several local IMAC pilots represented Aeroworks, and had a good assortment of their airplanes on hand, including the 37% TOC 300L—the airplane that Quique Somenzini has flown the last few years.

If you missed the convention this year, it will likely be better next year! AM

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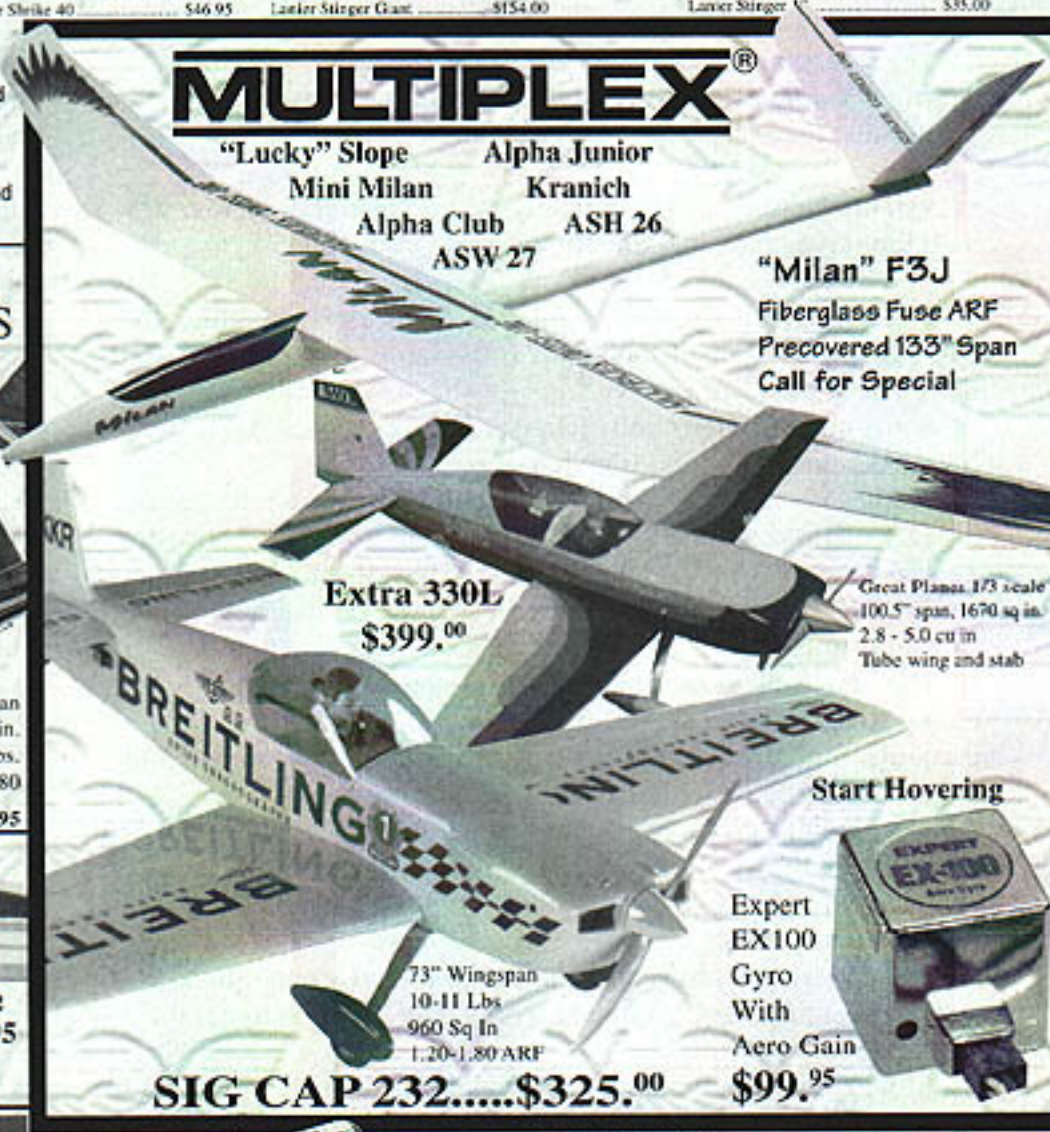
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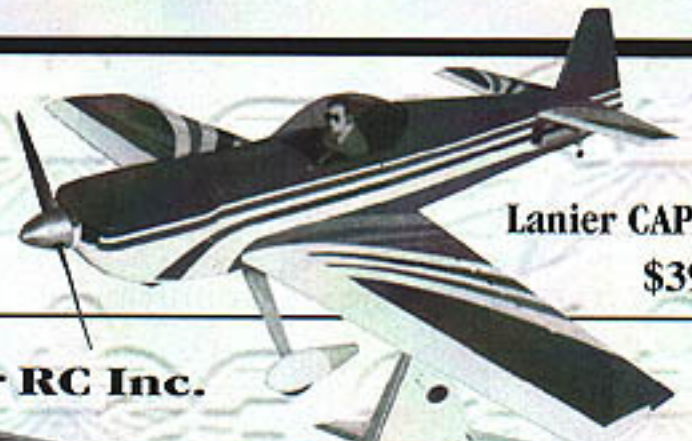


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Moki

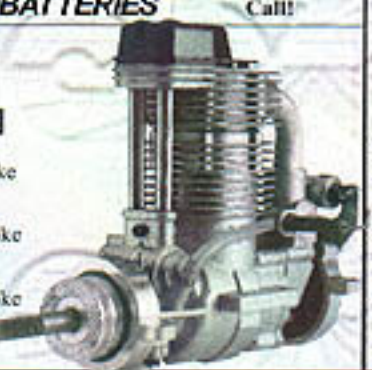


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MOMENT OF silence. Put down that starter and let's remember Les Haddad, proprietor of the Hobby Stop and Hobby Stop West in Toledo, Ohio, who passed away in February.

Les was one of the greatest friends racing ever had, sponsoring the annual two-day Toledo Silver Cup contest for Quarter Midget 26 years in a row—first with .15s, then with .40s after the rule change.

And Les didn't just put his shop's name on the contest flyers—he furnished beautiful silver trophies at his own expense, and saw to it that every contestant and worker went home with something from the Hobby Stop.

Les never forgot a face or the name that went with that face. After I'd been away at college and came back to fly in the Silver Cup, Les greeted me as if we'd both been at the field the day before. I was just a pesky kid; he had no particular reason to remember me, but he did.

Wayne Yeager gave perhaps the best eulogy when he said, "Les was a good friend who ran an old-fashioned hobby shop, where people could come in and talk about airplanes."

Thanks for all the good times, Les. Our hats are off to you.



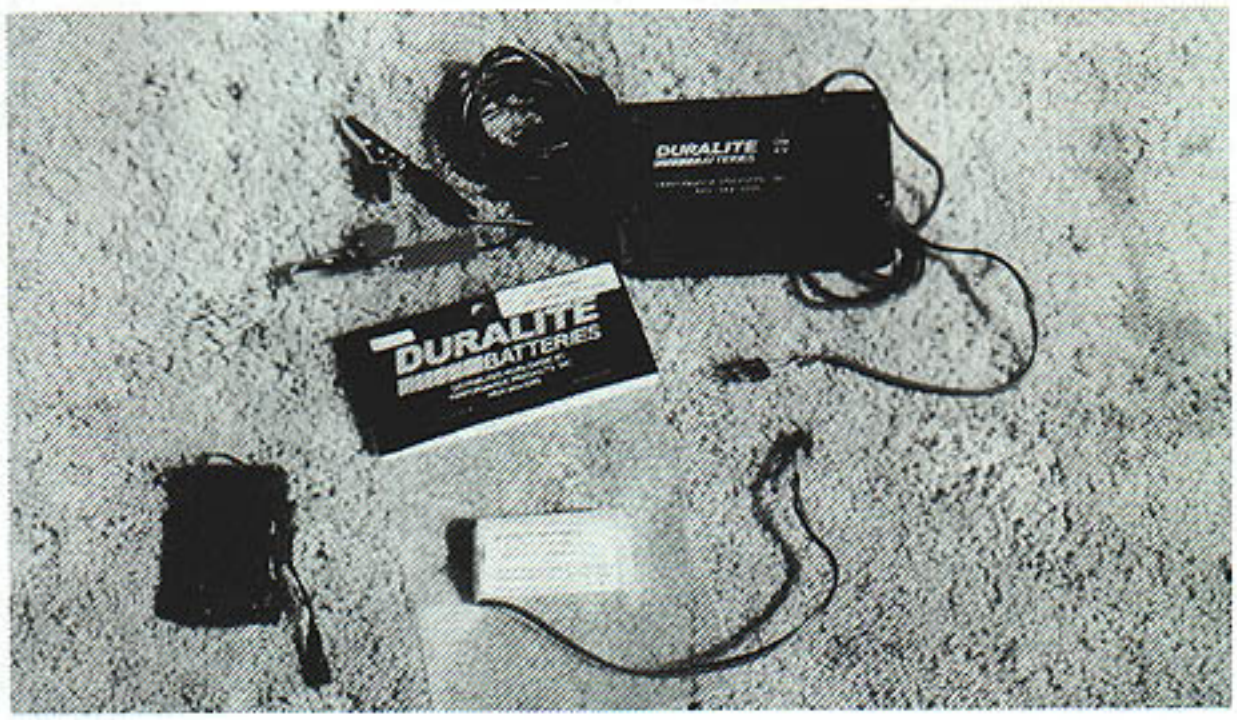
From JR Gold Cup race in Phoenix. Back row (L-R) Shannon and Chip Hyde (second place), Tony and Evie Lopez (first). Front row: Tiffany and Lindsay Hyde.

Where to Get Stuff: By far the most frequently asked question in my world is "where can I get a Quickie 500 kit?" Used to be you could walk into any hobby shop, walk out with a Scat Cat or Doddger, and you'd be set. Nowadays, racing gear is harder to find.

Fortunately, there are also more sources. Tim Lime of Team JR/Horizon Hobby Distributors has graciously provided the following list of the top-placing pilots at the 1999 Nats, the designs they flew, and contact information. Prices vary, depending on the completeness of the assembly when you receive it. All are clean and well-behaved flying machines. All are shoulder-wing designs with V-tails (or, in some cases, optional conventional tails).

1st: Lloyd Burnham, Intimidator, National Balsa, (413) 796-1925. 2nd: Tim Lime, Vmax, Apex Composites, (209) 848-0861. 3rd: Gary Freeman Jr., Vmax (see above). 4th: Craig Grunkemeyer, HurriKane (by Dan Kane, Jr.), (312) 775-2951. 5th: Randy Ritch, Vmax (see above). 6th: Trey Farran, Bird of Prey (by Lyle Larson), (605) 787-6340. Fast Time: Travis Flynn, Vortex (by Chuck Bridge), (209) 847-3459.

Speaking of JR, look for coverage next month of the first race of the 2000 JR Gold Cup Q40 racing series, which was held at the Speedworld R/C Flyers' field in Phoenix AZ in February.



Duralite lithium cells, special charger. Compare with 270 mAh Ni-Cd pack at left.

Can I do This? After "Where do I get an airplane?" the next question new Pylon racers ask most often is "Where do I get a copy of the rules?" This is usually for the purpose of answering a third question, "What engine should I buy for my new Whiz-Bang, and do I have to hop it up?"

These last two questions are now answered in relatively clear form, for the first time in many years. Unfortunately, it is not in your blue AMA *Competition Regulations*. Because of a quirk of timing and the printing schedule, you must now

contact AMA Headquarters or visit the Competition pages of AMA's Web site: http://www.modelaircraft.org/Comp/Competition.htm (follow the link from this page). What you will find there is a complete rewrite of the Pylon section of the rule book. There are not many substantive changes, but the subject matter is now easier to find and is accompanied by an index.

One of the few substantive changes, but one that is very significant, is in the entry-level class, Sport Quickie (event 424). There you will find a generic rule formula, plus three suggested methods of engine limitation. I encourage any clubs that have not already sent in their sanction applications for races to be held this year to specify which (if any) of these optional methods they plan to use—on the sanction application and in all precontest publicity.

Another change is within the definition of a "stock" engine. (Yes, we finally have a definition of this and other key terms.)

For years there has been low-level angst over what sort of modification you were allowed to do to the carburetor or muffler of a sport engine so it would hold together at racing rpm, and still remain "stock." The rewritten rules attempt to settle this question once and for all by laying out, in black and white, the things you can do to keep a sport engine together for racing. Check it out—it's almost a how-to.

For racing in the sport class you will probably end up with the Thunder Tiger Pro .40 or the SuperTigre GS .40. Each retails for right around $100—the price limit in most areas that use the "price limit" or "claiming rule" methods of limiting cost—and each will turn the standard 9 x 6 APC propeller at close to the 16,500 rpm limit specified in the basic rule, without much extra attention.

Replacement of the rear bearing is recommended on the Thunder Tiger. This is legal. See the March 1999 column for a how-to on preparing the Thunder Tiger for long life and best performance.

The SuperTigre GS .40 is a better choice if you don't want to tinker at all, but the tradeoff here is, to keep costs down, the manufacturer uses an old-style ringed piston and steel sleeve. This means you have to break the engine in slow and easy. Bench-running is highly recommended.

Assuming you have a six-ounce tank, run at least four tankfuls through the engine on the ground. Use mild sport fuel (5% to 15% nitro, with extra castor oil if possible) and a 7 x 6 or 8 x 4 propeller.

Yes, that is a small prop. Do not fly with it. Its only purpose is to simulate the cool, "unloaded" conditions of actual flying.

Check to make sure the idle needle (which looks like a brass, flat-head slotted screw) is out far enough that it sits flush with the end of the carburetor barrel. Open the throttle to full bore. Open the main needle valve seven or eight turns. Prime the engine with a couple of drops of fuel and "bump" it with an electric starter until it fires up.

With the glow plug clip still attached, back out the needle until the mixture is so rich that the engine will barely keep running. You will see black goo coming out the exhaust; this is oil mixed with tiny particles of steel from the ring and sleeve as the parts wear to fit each other perfectly. The cylinder head and fins should be cool enough that you can comfortably touch them with your fingers.

Let it grind this way for a full tank. Refill the tank and start it up again. This time, lean out the mixture enough that the engine will run without the battery attached. Remove the battery and let it grind some more. The black goo should be tapering off to light brown by now.

On the third and fourth tankfuls, begin gently "thermal cycling" the engine by pinching the muffler pressure line (or, if you don't have the muffler tapped for pressure, by capping the air intake line from the fuel tank with your finger) until you hear the rpm coming up to a strong, steady note. Hold for a few seconds, then release the line to flush and cool the engine with fuel. Wait half a minute or so, then do it again. You can get more aggressive as time goes on, but resist the urge to hear it scream. It will scream plenty later on if you do this part right.

Finally, wipe all that brown goo off the airplane, put on your 9 x 6 flying prop, and go play. Keep it burbling rich for at least the next half-gallon. Beware, it may not idle very well, so plan your landings accordingly.

Gizmo Patrol: I will close this month with a mere revolution: the Duralite lithium batteries. These are available from a variety of sources, but I got mine from Darrol Cady (10711 NE 37th Ct.,Vancouver WA 98686; Tel.: [360] 573-0987; E-mail: dcady@pacifier.com).

How much of RC culture in the last 30 years has been devoted to the care and feeding of Ni-Cd batteries? You can forget most of it now. The Duralites have a long shelf-life between charges; have three times the power density of Ni-Cds; and apparently have no problems with "memory." In layman's terms, that means you can top them off on a Tuesday, then fly all the next weekend without worry. The only thing you are not allowed to do is run them down completely; this will ruin them.

What about weight? A six-volt, 800 mAh pack weighs less than 1.5 ounces and fits in less space than whatever you are racing with now. With the help of these, I "made weight" with my last two racing models (and if you know how I build, that is saying something).

Since I've just given you Mr. Cady's address, you should also know that he will extract broken bolts from Nelson or Jett mufflers for $10, plus $6 shipping. This is a delicate process involving a mixture of acids that you don't want to fool with, believe me. But I just got mine back and it's as good as new. Not only that, it's clean! MA

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RADIO CONTROL *HELICOPTERS*

Paul Tradelius, 4620 Barracuda Dr., Bradenton FL 34208; E-mail: flytrade@earthlink.net

THERE'S AN old saying that all good things must come to an end, and so it is with my writing this column.

I have really enjoyed writing for you throughout the years, but as I mentioned in my previous column, it's time to step aside and let someone else impart his or her knowledge and help this great hobby progress as it should.

Although this will be my last column, I hope to write individual articles as the need arises, and I look forward to continuing to hear from you, via letters and E-mail.

Most of my columns have dealt with specific areas of building and adjusting helicopters, as well as helicopter theory. I have also included areas that I thought needed attention by every club, to make helicopter flying more enjoyable for everyone.

I have received letters from many of you, describing the difficulties you have encountered as the new guy at the flying field, trying to use equipment that was different from what was being used by the other fliers.

Most clubs are formed around the nucleus of some of the best fliers; what they are flying becomes the club standard, since those products are tried and proven and techniques for specific adjustments have been developed.

This is certainly not bad.

If someone has a problem with a product and a fix is devised, it can be passed along to all of the club members so that everyone's helicopter will fly better.

And if you want instruction on the buddy box, it is certainly nice to have several fliers using the same equipment, so that everything is compatible among the instructors and the students.

However, the problem arises when a wall is built around a certain helicopter, or other products, and excludes the use of other equipment at the flying field.

I have received telephone calls from new fliers who wanted to get *out* of the hobby because they could not get any help from the more-experienced pilots at the field. The new fliers were using "Brand X" equipment, and that was not accepted. Experienced fliers said the new helicopter and radio they just purchased were "junk," and should be sold and replaced with what was being used by most of the club members.

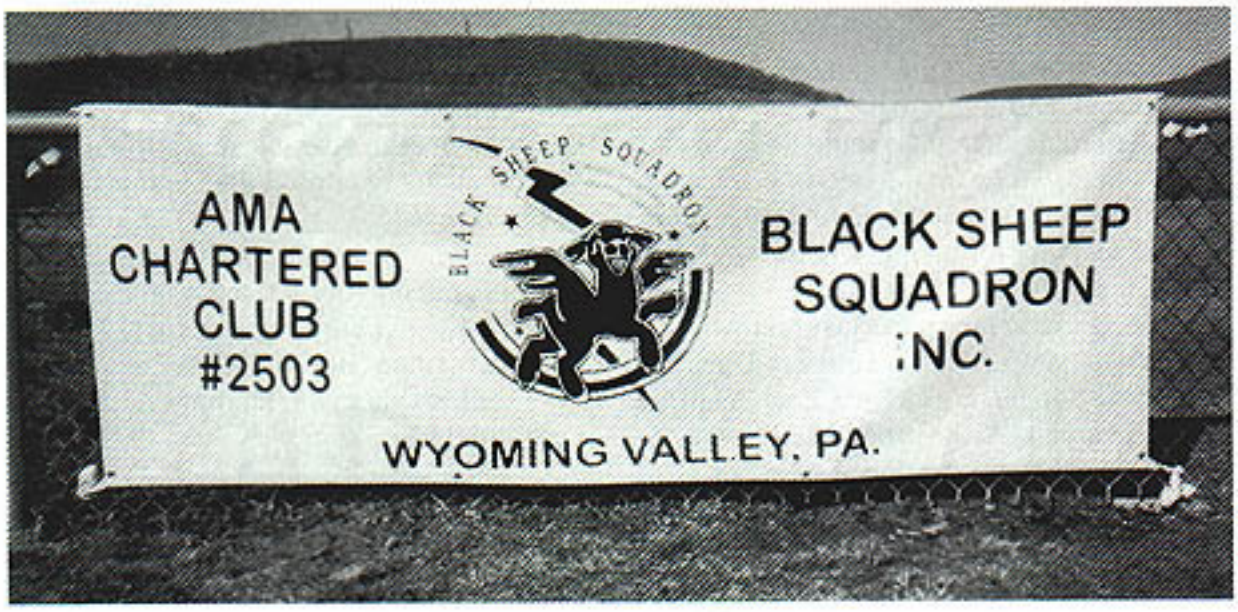
Everyone has preferences for specific helicopters, engines, radios, etc., but that is not to say that other brands will not work as well—or even better.

The next time a new flier comes to your flying field and wants help, try to steer him or her in the right direction so the wheel won't have to be reinvented. But also try to keep an open mind about his or her specific equipment, and be positive in your approach to getting the new pilot safely into the air.

If you look back at your own flying experiences, you might remember a time when the fixed-wing fliers didn't want helicopters on *their* field, or how persons using training gear were not treated the same as the more-experienced fliers.

If you have seen this happen at your field, or even think it could happen in the future, bring up the subject at your next club meeting to "clear the air" and help the next new club member feel even better about belonging to your club.

The theme for this column was inspired by



Black Sheep Squadron banner. Members go out of their way to make others welcome.



(L-R) Karl Moeller, Stuart Hancock, Jim Ferraldo, and Tom Hizny are ready for another day of flying at the Black Sheep Squadron (Wyoming Valley PA) field.

Steve Kurimchak, press relations officer of the Black Sheep Squadron of Wyoming Valley PA.

Steve sent me a nice letter, along with photos, about several new helicopter pilots who have joined his club because of the official policy that all forms of Radio Control (RC) aeromodeling are encouraged. That is directly from the club's membership manual.

Steve also mentions that because AMA's *Membership Manual 2000* recommends RC flying site specifications, the club established special helicopter-hovering areas and a helicopter WINGS program, to promote interest in the hobby and in the club.

One of this month's photos shows a display of the Black Sheep Squadron's banner at their flying site. There is obviously much pride in this club.

Another photo shows Jim Ferraldo, Black Sheep WINGS Instruction Program Coordinator, getting ready for another flight with his X-Cell 60 Pro II. Also shown, from left to right, are three other club helicopter pilots: Karl Moeller, Stuart Hancock, and Tom Hizny.

The last photo is of the Black Sheep Squadron's helicopter display at the Wyoming Valley Mall Hobby Show in Wilkes-Barre PA. This is an excellent way for any club to make its presence known in the community, and to demonstrate all the fun that can be experienced by flying helicopters.



Black Sheep Squadron's helicopter display at mall hobby show generates interest in hobby, club, gives new fliers chance to try flight simulator.

Notice the portable television used to support a VCR of club flying, as well as a flight simulator so that potential fliers can get some hands-on experience.

Congratulations, Black Sheep Squadron. You have not only opened the club to new fliers, but you have taken direct and meaningful steps to encourage others to enjoy this great hobby.

It wouldn't take much for *every* club to follow in the steps of the Black Sheep Squadron, or even expand its presentations to the Boy Scouts, Boys Club, Big Brothers-Big Sisters program, or other clubs in your area for persons of all ages.

I would like everyone to reflect on what this hobby has meant throughout the years, and how much more it can mean in the future by taking an active role in your area to promote all forms of model helicopters.

Good luck, and fly safely. MA

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RADIO CONTROL *COMBAT*

Greg Rose, 1312 NW 196th St., Edmond OK 73003

ALTHOUGH RC (Radio Control) Scale Combat is one of the fastest-growing modeling events today, a new event has been gathering steam and is bursting onto the scene with the same rapid growth.

Pulled together from countless local events into a nationally-recognized event through the efforts of the RCCA (Radio Control Combat Association), Open class Combat offers RC Combat fliers and potential fliers excitement and competitive opportunity with the ease and speed of building found only in nonscale models.

The simplicity of the Open class Combat rules, which dictate engine size, weight, and a few common-sense safety issues, allow one to build an endless variety of designs for the event.

Just as in Scale Combat, a number of kit manufacturers, ranging from one-man shops to larger, well-known manufacturers, have begun to kit Combat models for the Open class. For those interested in the event, I've listed several kit manufacturers—some of which have sprung up in the last year—that offer a wide variety of designs.



Group photo from the Wichita [KS] Radio Control Club (WRCC) Open Combat Meet.

You might try one of these generally very quick-building kits, and give RC Combat a try.

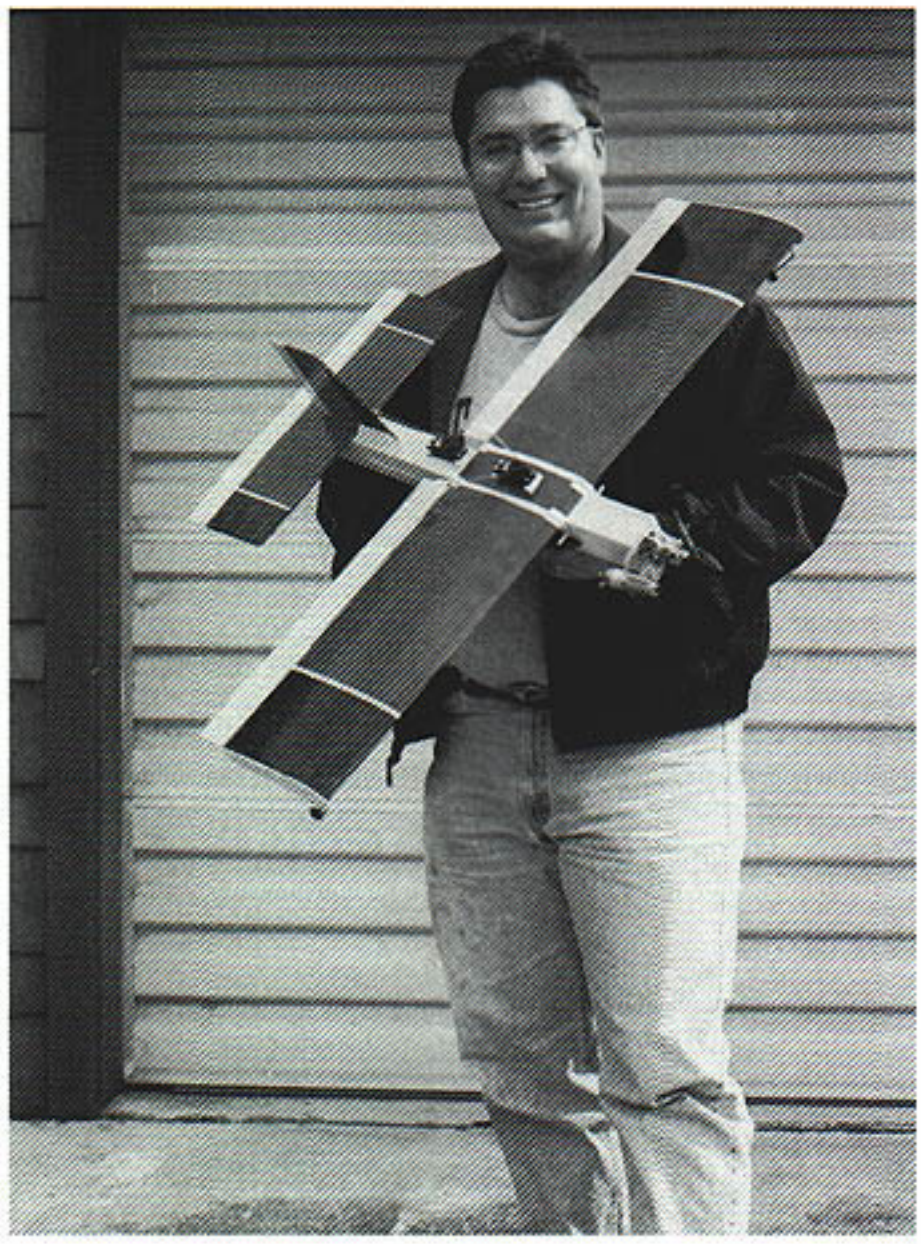
Cutting Edge Model Products (Box 6941, Eureka CA 95502; Tel.: [707] 445-3525; Web site: www.battlefloyd.com; E-mail: mail@battlefloyd.com) kits the Battle Floyd and the larger Two-by-Floyd RC Combat kits.

Both kits are constructed with a balsa-covered cut-foam fuselage, cut-foam wings, and Coroplast™ tail feathers.

The Battle Floyd has a 40-inch span, although many builders cut the wing down to 36 inches, depending on personal preference.



Collin McGinnis gets ready to launch Tim Tong's SPAD Defender for B class Open Combat at the WRCC Elm Hill Field.



Eric Sobel proudly shows off his Battle Floyd kit from Cutting Edge Models. Eric has used his Battle Floyd in Combat!

Suggested power for the Battle Floyd is an engine in the .10- to .25-size range, and a typical model using a .15 engine and three full-size servos weighs 27 ounces.

The larger Two-by-Floyd design spans 47 inches, can take a larger .30-size engine, and flies like the Battle Floyd.

Flying Wombat Models (Box 131, New Boston MI 48194; Web site: www.combatwombat.distantrealm.com; E-mail: Info@DistantRealm.com) produces the Combat Wombat and the Combat Wombat II.

Both designs feature plywood and balsa over cut-foam fuselages, Con-Tact®-paper-covered cut-foam wings with pine leading edges, balsa tails, and wingspans of 36 inches.

The original Combat Wombat is described "as gentle as a trainer but as aggressive as the best in Combat."

The new Combat Wombat II, introduced at the Toledo show (April 7-9), has a shorter-coupled tail of a new design that "dramatically improves the cornering ability" of the model.

Hat Trick Enterprises (W8530 Country Hwy. S., Beaver Dam WI 53916; Tel.: [920] 887-3225 [please call evenings only]; E-mail: vvrccomb@fdldotnet.com [the first letters are two vs, *not* a w]) produces the Hat Trick kit shown in the last column.

The popular design uses Coroplast™ for the fuselage and tail, and has a cut-foam wing. Powered by a .20- to .25-size engine, it spans 40 inches and has 320 square inches of wing area.

Lanier RC (Box 458, Oakwood GA 30566; Tel.: [770] 532-6401; Web site: www.lanierrc.com) makes three versions of its Shrike design—all have the potential to be used in different Open Combat events.

The original Shrike design, spanning 35.5 inches and powered by a .10-.15 engine, has been joined by the larger version, spanning 43 inches, and a smaller version, spanning 24.5 inches.

All three Shrikes are of built-up balsa-and-plywood construction, with laser-cut parts that interlock or include washout tabs to assist in proper alignment and see the building process.

Quality Aircraft (6839 S. US 1, Port St. Lucie FL 34952; Tel.: [561] 460-2844; E-mail: qaircrft@bellsouth.net) produces the original Wild Thing Combat design.

One of the more-time-proven designs in Open Combat, the Wild Thing continues to grow in popularity and stay competitive with newer designs.

Built using conventional balsa-and-plywood construction, the Wild Thing has been updated to include laser-cut ribs and fuselage sides. Its 36-inch wing has 360 square inches of area, and the typical kit powered with a .15-.25 engine weighs roughly 35 ounces.

RA Cores (Box 863, Southbridge MA 01550; Web site: www.racores.com; E-mail: racores@world.std.com) produces the venerable Combat Gremlin.

In continual production since 1991, the tailless Combat Gremlin still demands respect at any Combat meet, and is one of the most-popular regional designs flown in Open Combat.

The Combat Gremlin's foam wings span 48 inches, and the short fuselage is made from PVC (polyvinyl chloride) tubing.

A typical Combat Gremlin powered by a .28-size engine weighs in at approximately three pounds.

Although the kit comes with plans to build a sliding tray to control the elevons,



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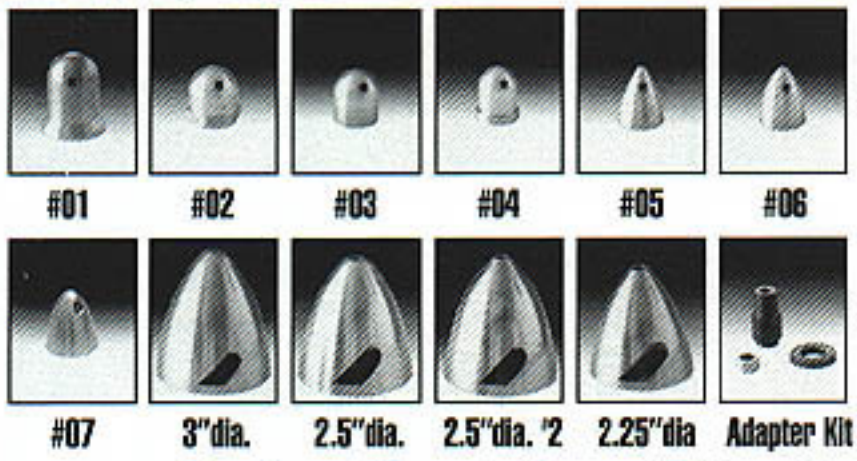
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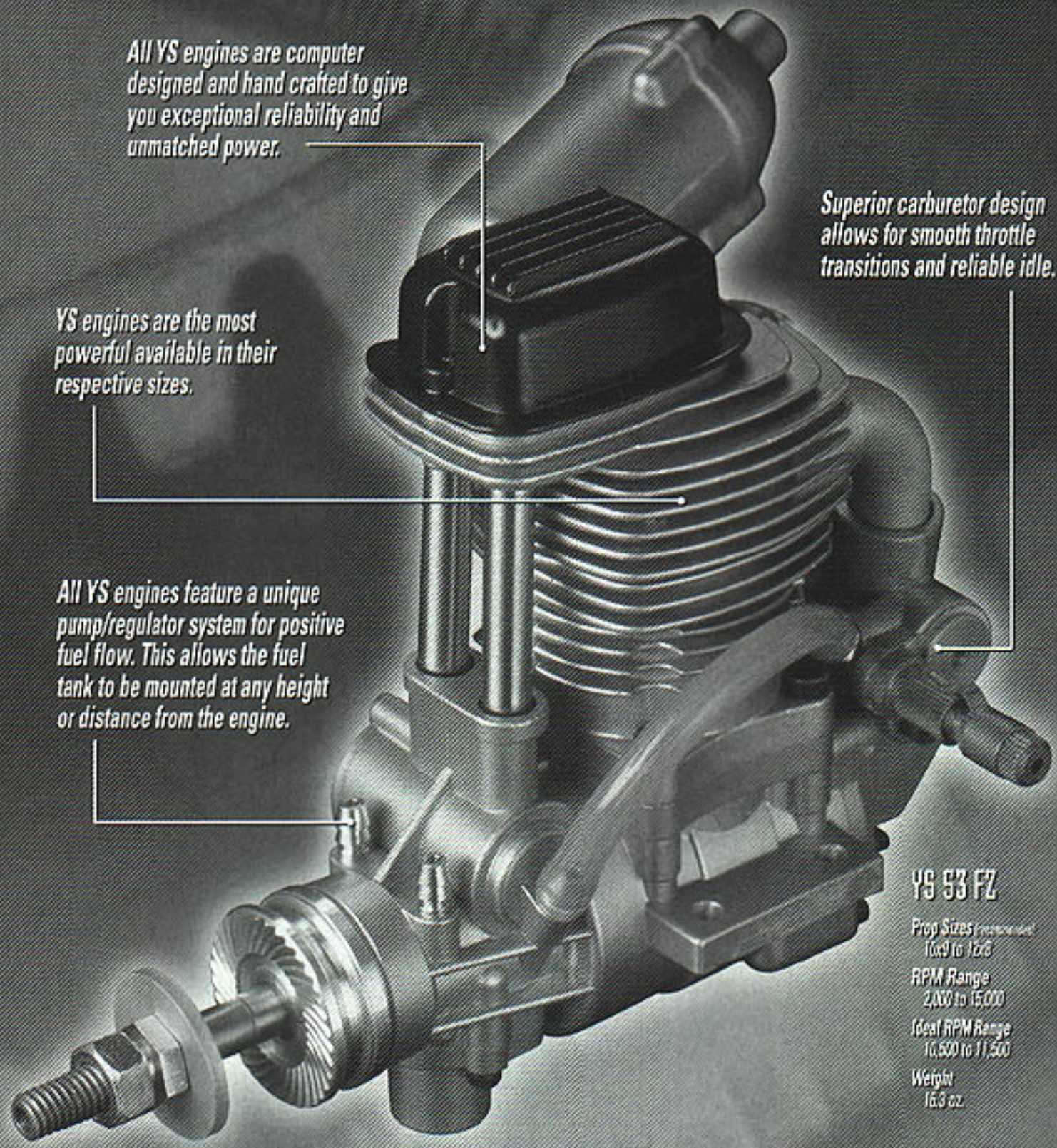
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15,000 to 17,000

Weight
15.15 oz.



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today's computer radios make the kit even easier to assemble and fly.

SPAD's (951 Stetson Cir., Maize KS 67101; Tel.: [316] 729-9764; Web site: www.feist.com/~mcmcginnis/SPAD.htm; E-mail: mcmcginnis@fn.net) name is an acronym for Simple Plastic Airplane Design, and the company has a sincere focus on designing very simple models using everyday materials.

Because of their simplicity, the SPAD designs are offered in a slightly different way than other kits on the market. There are no SPAD kits, *per se;* you can only get a design by obtaining a finished ARF (Almost Ready to Fly) from SPAD, or purchasing access to the Web site, so you can download the plans and build any of the numerous designs yourself.

SPAD's latest design, the Defender, is smaller than the previous designs; it was specifically designed to meet the requirement of RCCA Open B class.

The Defender spans 36 inches, is 24 inches long, and like all SPAD designs, it is constructed from square PVC tubing for the fuselage and folded Coroplast™ for the wings and tail.

To minimize the cost of building the designs, even the control horns are fashioned from the inexpensive PVC square tubing!

Vortex Products (1522 38th. St. Rd., Evans CO; Tel.: [970] 339-5429; E-mail: vortex@oneimage.com) kits the Disobedient for RC Combat.

Using a white foam wing with a single spar (a Control Line Combat building technique), the Disobedient spans 38.5 inches and has 344 square inches of area.

The kit's fuselage has a laser-cut tab-and-lock construction that allows you to preassemble the fuselage, bind it into shape with masking tape, then apply CyA (cyanoacrylate glue) to secure the joints.

The precise fit of the parts allows the fuselage to be assembled "in your lap," without using a building board.

I have run out of space. I will continue the next column with some more Open Combat kit manufacturers and an overview of the new RCCA Open Combat rules.

Until next time, build light, fly safely, and be sure to check your six! MA

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OLD-TIMERS

Mike Keville, 6218 E. Evergreen St., Meza AZ 85205; E-mail: jkeville@extremezone.com

YES, THE OLD-TIMER column is back, but with expanded subject matter. We'll now include Radio Control and Control Line as well as Free Flight.

The column is scheduled to appear bimonthly, and I'm actually on a three-column trial basis here. Whether I continue or not will be entirely up to you. Since we intend to include all categories, we'll need your input—especially photos and other activity pertaining to FF and RC.

I am a former Free Flight competitor who returned to his CL roots 13 years ago, and I have been heavily involved ever since. I admit that my RC experience is rather limited; I'll need *your* contributions if this column is to be a success.

Been modeling since 1947, starting with StromBecker solids, then into Monogram Speedee-Bilt kits. Discovered flying models in 1950 and to this day maintain a passion for the designs of that decade.

I'm an AMA Leader Member, and my wife JoAnn is an AMA Contest Director. Together we host the annual Vintage Stunt Championships, and were among those who helped organize and run the first US Free Flight Championships back in 1971.

As for RC, I have some buddy box time on a deBolt Champ and a couple of modern designs, and recall quite well the early days when RC was considered a huge success if the rudder-only escapement mechanism worked.

So just what is it that attracts a certain percentage of modelers to old-fashioned construction methods/materials and obsolete designs?

For the most part, it's a nostalgia thing. That is, fond memories of simpler times, a slower pace, and the fun associated with relatively simple flying machines.

Many of us just prefer building with balsa, model cement, silk or silkspan, and dope, as opposed to contemporary materials.

Some (myself included) are inspired by memories of certain designs we saw in *Air Trails* 50-or-more years ago and always intended to build. Others fly old designs purely for the thrill of knocking the other guys' socks off in competition.

I have fond memories of the Navy Nats days, when the AMA Nationals were held aboard various US Naval Reserve bases around the country. In retrospect, the flying sites were marginal (read: small) for the FF folks, but there was a magic associated with having all categories on one site together.

Who can forget the sound of Speed engines (and Dyna-Jets) being tested at midnight? Of course, many of us were still awake, since we were busy building models inside the huge workshop hangar in preparation for the next day's competition. Row after row of sturdy wooden workbenches, literally covered with every type of model imaginable.

And there was the Scale cage: faithful reproductions of full-scale aircraft displayed all week long behind a protective screen of chicken wire. Throughout was the ever-present aroma of dope fumes mixed with engine exhaust residue.

Sometime in the early 1960s, John Pond began hosting unofficial OT Free Flight events at the Nats, including a large display of competitors' models inside that workshop hangar. I first saw that at NAS Glenview (IL) in 1962, and something clicked.

What really opened my eyes to Old-Timer modeling, however, was a visit to the old Gardner Field flying site in Taft, California, circa 1969. There, gentlemen like Sal Taibi, Jim Adams, Gene Wallock, Russ Johnson, and others were flying giant Texaco models using the original ¼-ounce fuel-allottment rule.

Flights of one-hour-plus were not uncommon, and yes, they chased them cross-country via automobile, just like the old days. (Society of Antique Modelers guys are thinking, *"And your point is?*) Although I never built one of those, I did manage to dabble in the .020 OT event, both ROG and ROW, as well as a few OT Rubber models.



From a 1939 Megow catalog: Whatever happened to Planefilm?

It's mainly the stick-and-tissue or balsa-and-silk construction that I find appealing, as do many Old-Timer fliers.

Depending on which modeling category you prefer, there are Special Interest Groups and organizations to serve your needs.

Free Flight has SAM (Society of Antique Modelers); Radio Control is represented by the VR/CS (Vintage Radio Control Society); Control Line activity is heavily included within PAMPA (Precision Aerobatics Model Pilots Association.)

I am a member of PAMPA and will have established contact with the other Special Interest Groups by the time this column is printed; addresses for the SIGs are at the end of the column, or check the Special Interest Group section on the AMA Web site (www.modelaircraft.org).

Two excellent publications also help to explain the mystique of Old-Timer modeling. Many modelers consider Dave Thornburg's *Do You Speak Model Airplane?* as the definitive work on why we do this; it is currently out of print, so you may need to borrow a friend's copy. Control Line fliers will also be enchanted by Charles Mackey's *Pioneers of Control Line Flying*, available through AMA Supply and Service.

Here's something of interest to those who prefer iron-on film coverings.

It's often thought that this type of covering was first used in the 1960s, with the original (if not entirely successful) sticky-back MonoKote®. But Wisconsin's Doug Dahlke sent a copy of a page from a 1939 Megow catalog featuring something called Planefilm. This was the first I'd heard of this material, though some readers may be familiar with it.

According to Megow, the covering was "non-porous, smooth as glass … can be applied in a fraction of the time required by old methods … stretches itself drumlike over irregular curves" (sound familiar?). The ad also states that the material "comes attached to a backing sheet … is easy to handle and cut to shape … *eliminates the use of glue, dope, finishes and stretching, is far superior in lasting quality and produces an opaque brilliant, colorful, glassy effect that cannot be approached by old methods.*" (Italics mine.)

Available colors were white, black, yellow, red, blue, and silver, in sheets ranging from 9 x 12 inches at 18 cents to 36 x 36 at $1.50. It was also available in 36-inch widths at any length for $1.50 per yard.

Nowhere in Megow's ad do I see the term "iron-on;" thus I'm unsure how it was attached. They did offer a solvent, but the ad doesn't detail its use. Perhaps someone familiar with Planefilm could fill us in, and also explain why it apparently failed to take the modeling world by storm.

Old-Timer modelers pretty much know where to find plans for their favorite designs—sources such as John Pond, Dick Gleason, Bob Holman, and others. RC fliers may not be aware that there's another source stocking plans for those great old designs from the 1950s and '60s:

Tom Dixon offers plans for such old favorites as the Flat Top Stormer, Orion, Taurus, Rudder Bug, and others. Although his catalog contains primarily CL kits, plans, and reworked engines, there is an excellent section listing many RC plans. Send $5 to Tom Dixon, Box 671166, Marietta GA 30066; Tel./Fax: (770) 973-9238.

Those who recall the extensive line of all-balsa ½A semiscale CL models produced by Scientific in the '50s and '60s (remember those two-page ads?) may know that the designer was the legendary Walt Musciano.

If you have fond memories of those fun little models, you may be interested to know that plans are currently available from the designer himself. In fact, a Northern Virginia club hosts an annual meet solely for those designs. Walt has attended, and even served as an appearance judge on at least one occasion. Contact Walt Musciano, 133A Dellglen, Lodi NJ 07644; Tel.: (973) 340-9410.

That's a wrap for this introductory column. As it was being submitted, I was busy contacting modelers in all three categories for material for future columns. I'll need photos and other items of interest so that you won't have to continue reading the rambling reminiscing of an old fuddy-duddy about how great things *used* to be.

Whether your interest centers on Playboys, Ringmasters, or Royal Rudder Bugs, I'd like to hear from you. Please share your latest project(s) with us and we'll certainly try to include them here.

I'd also appreciate being added to the mailing list of any manufacturer or distributor offering items of interest to Old-Timer modelers. If sending contest announcements or other time-sensitive material please remember we work to a three-month lead time, and the column will appear in alternate months. If you'd like a reply, please include a SASE. MA

Special Interest Groups:

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Dan Kranis holding his rubber-powered Cessna Airmaster.

THANKS TO all of the newsletter editors who send me their terrific efforts each month. I know what it takes to put out a newsletter, since I was editor for the Flightmasters for 11 years.

The Flightmasters used to be the world's largest Free Flight (FF) Scale organization. Now the club is in the midst of becoming extinct, because its flying site was taken away for a golf course. (This is in a county that already has some 56 courses!)

Add to that the lack of a regular newsletter, and the demise of this organization is imminent.

Finding a flying site in California is no easy task—especially for FF.

The Flightmasters started in the early 1950s, as a purely FF club. A Scale event was added to increase interest in their contests, and, as they say, the rest is history.

Drop me an E-mail if you have any idea of how the club can be saved, or if you live in the area and might be interested in taking over an editorship.

In most clubs, such as the Flightmasters, the membership age is getting up there. This causes many to drop out, for one reason or another. Young membership is nearly nonexistent, so it doesn't take a rocket scientist to figure out what the results will be.

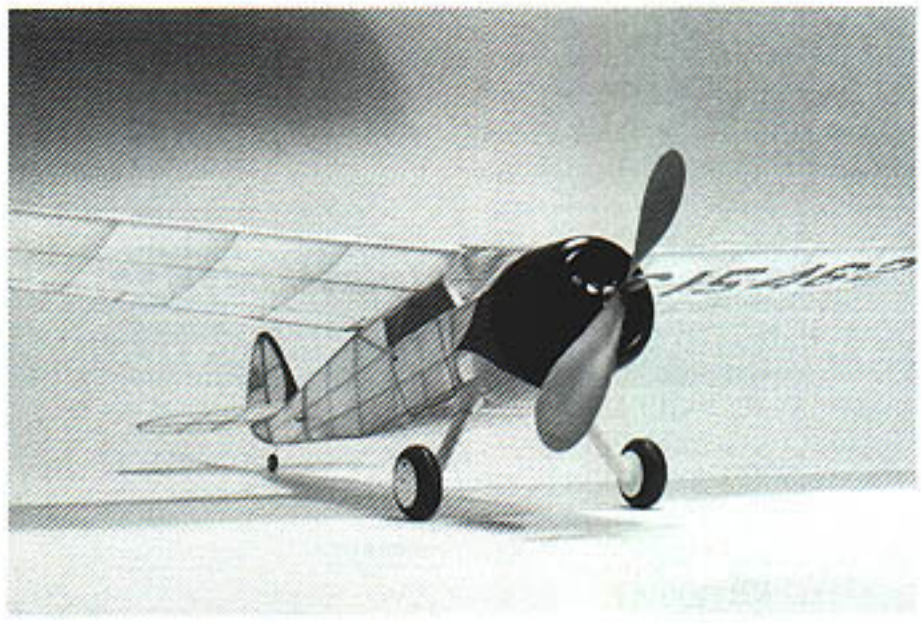
Any help or advice that you can give will be greatly appreciated.

I'm going to continue with a topic from last month's column: finding errors on a plan before starting to build.

I am building another biplane to take to the FAC (Flying Aces Club) Nats this summer. The plans I'm using looked pretty good—until I got knee-deep in construction.

These plans showed the fuselage sides separate from the usual side-view. Everything looked normal. I had the entire fuselage framed. After building the rudder, I placed it on the fuselage to see how it looked.

I couldn't believe it; the angle on the base of the fin wasn't even close to fitting the fuselage!



A close-up shot of Dan's Airmaster.

I placed the fuselage next to the side view, and the plan was ¼-inch too short! Moving the rudder back that extra ¼ inch made the rudder fit properly.

Another lesson learned the hard way!

Another common mistake on plans is that the plan-view doesn't coincide with the side-view.

Why?

The construction of the front end of the fuselage has to angle in rather sharply on some designs, which causes the fuselage to be shortened.

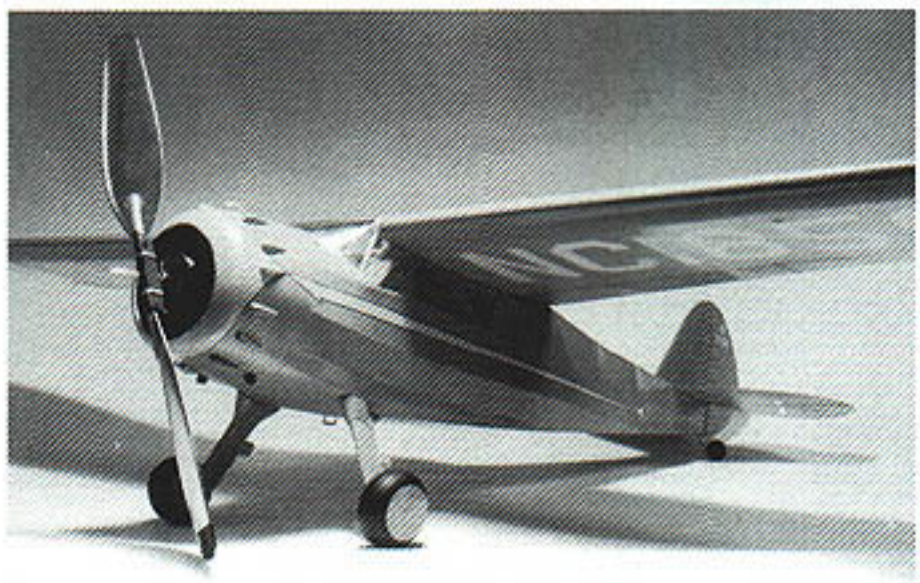
This means that the front bay of the side-view has to be lengthened enough so that there will be no loss in length when the fuselage front end is angled inward.

There seems to be no end to the areas where errors can occur.

The next item isn't an error, but an omission.

Plans for a power model usually show the engine set at zero thrust, with a comment on the plan indicating that so much down and right thrust should be incorporated.

If the engine mounts are placed as shown on the fuselage (engine mounted with down and right thrust), the thrustline isn't where it should be; it isn't coming out in the center of the cowl. This gives



Another beautifully-built Cessna Airmaster by Dan Kranis. Author saw prototype of model at Merced CA fly-in.

the model an awful appearance—especially if it has a radial engine.

The solution is easy.

Using a protractor and a straightedge to transfer these dimensions to the bulkheads that hold the engine mounts will guarantee the center of the thrustline.

Having to make additional thrust settings will not ruin the thrustline by much, since most of it has been compensated for previously.

Cabane Struts Revisited: Some time ago, I showed you how I like to make the cabane struts for biplanes or parasols. I use aluminum tubing, well-anchored to the fuselage, and the wires for the cabanes plug into the tubing.

I prefer to do this, rather than to bend the cabanes and anchor them permanently to the fuselage.

The big advantage is that the cabanes are out of the way during the sheeting, covering, and painting processes. (Full-scale airplanes have aluminum paneling under the cabanes, but I suppose there is an exception somewhere.)

When those processes have been completed, the cabanes can simply be plugged in.

One annoyance in all of this is the diagonal bracing that cabane struts have. Typically, the wire used for the bracing is bent properly, then soldered in place after being wrapped with fine copper wire.

This little task is a big pain—particularly when trying to fair balsa around the copper-wrapped-soldered joint.

Since most of my Scale models are biplanes, I try to make any task as easy as I can.

To eliminate having to wrap and solder the diagonal bracing, I install an additional piece of tubing in the fuselage, just ahead of the rear cabane attach point. At the other end of the diagonal, I bend the wire so that it parallels the top of the front cabane.

In essence, the lower end of the diagonal plugs into the fuselage, while the top end is part of the center-section. It makes an neat installation.

Roll wires are another issue.

Most biplane models I have seen leave them off. Roll wires keep the center-section from moving from side-to-side, whereas the diagonals keep the center-section from moving fore-and-aft.

The roll wires on a full-scale biplane typically attach to a fitting welded onto a crossmember, then they go across to the opposite side, to a fitting on the center-section—one on each side. This forms an X where the wires cross each other.

The less-obvious point is that one roll-wire attachment has to be slightly ahead of the other, so they do not touch where they cross.

The roll wires can be omitted from small biplane models without structural harm. However, I *do* advise using roll wires on power models

The easiest method to attach the wires is to embed a couple of wire loops securely in the sheeting. After the model has been painted and the center-section has been installed, attach the roll wires to the wire loops and to the center-section.

This is not prototypical, but it doesn't look bad and it does help support the center-section.

In the past I have mentioned how I make wire loops, and I suppose that a review is in order.

Making clean loops from piano wire is not easy—particularly if you want them all to look alike. Charlie Newman turned me onto the following method, and it works great.

Very carefully cut the hook ends off of some very small fishing hooks (the size depends on the size of your model). Do it inside a trash can; you don't want those sharp points going where you don't want them! Cut as many as you need at one time.

The remaining parts of the hooks need to be straightened, but you can't do that without annealing them first. The hooks are so hard, they snap when you try to straighten them.

I heat the hooks to a cherry red with one of the very small torches, then I let them cool. The hooks bend easily once they have cooled.

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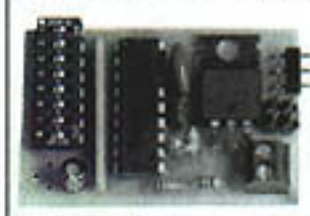
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What is neat is that the hooks have tiny barbs on the shaft that help keep them secure, and the loops are uniform in size.

Dropping a small amount of CyA (cyanoacrylate) on the shaft of the loop, then embedding it in balsa is all that is required to keep it secure.

For smaller models, wrap the loop part of fine copper wire onto a piece of piano wire. The size of the piano wire depends on how big you want the loop to be. Twist the copper wire onto itself, until you have a length of approximately ¼- to ⅜-inch. This, in turn, is CyAed into a small hole drilled in the structure.

I have used the finest piano wire in the past, but keeping the holes uniform is a real pain.

I hope these hints will make your next project a little easier to build.

I have read several discussions regarding which airfoils should be used on a particular Scale model.

Long ago, Walt Mooney came to a contest with a nifty scalelike sailplane to fly in towline. (Naturally, Walt was the only one there whose model looked Scale.)

I was admiring the model, with its long, tapered wing, then I asked Walt, "what airfoil did you use?"

His reply is one I will never forget: "Mooney's french curve!"

I have used his method successfully many times. I try to do everything as simply and as expeditiously as possible; I have many models to build!

Many years ago, I had a particularly bright student who wanted an idea for a science fair project.

I had heard the virtues of the RAF 34 airfoil (please do not confuse it with the RAF 32 airfoil, which was a favorite of modelers in the '30s and '40s), so I thought that would be a good time to test it.

I suggested that he build a low-wing Rubber model (I don't remember if it was Scale or not) with different wings—one with the venerable Clark Y, and the other with the RAF 34.

My student built the model, and the time came to test-fly. It was first flown with the Clark Y wing. The number of winds were recorded, so that it would be the same for the other flight. The model flew well.

The wing with the RAF 34 was flown, keeping everything the same as before. What a difference! The RAF 34 made the model more stable, with less tendency to stall.

The RAF 34 is similar in appearance to the M6 airfoil used on the Mr. Smoothie Thompson racer. Both have reflex trailing edges; that is, they curve upward.

One of my favorite airplanes is the British ABC Robin. It had the RAF airfoil. I built a model of the Robin using that airfoil; it was a dynamite flier.

I can give the ordinates if any of you are interested in this airfoil, and maybe do an article on how to plot it. Let me know.

I have a suggestion for those of you who want something special, to knock the socks off of your opponents.

Dave Reese and Don Srull are the two most-successful competitors in the FAC Nats. Both have had many Scale models published in model magazines. Dave has an extensive list of plans that he sells, most of which he has won with.

See what kind of airfoils are used on their models, what kind of propellers are used, the amount of rubber used, etc.

You might be surprised.

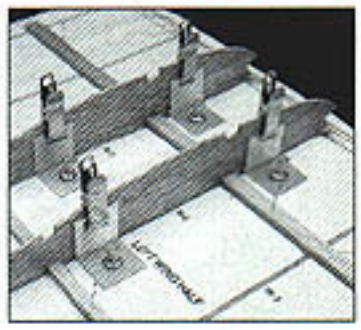
I tried a new engine cleaner called Demon-Clean™—a product of Dave Gierke Flying Models, Box 83, Bowmansville NY 14026.

This formulation has taken more than two years to develop, and the beauty is that it will not damage delicate metal surfaces—even if left on the parts for weeks or months. It has no ammonia odor.

One friend of mine even suggested using it to remove varnish from firearms that have been sitting around.

Demon-Clean™ costs $18.95 for an eight-ounce can, with applicator, including shipping. This product works really well, and it works easily. Give it a try. MA

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FREE FLIGHT *DURATION*

Louis Joyner, 4221 Old Leeds Rd., Birmingham AL 35213

GETTING A HANDLE, Part One: Lightweight fiberglass cloth is a popular material for reinforcing balsa parts such as sheeted wings, carved props, pylons, and fuselages.

The usual instructions state that you should place the dry cloth over the area to be covered and squeegee on thin epoxy resin, spreading it evenly.

Sounds easy. Well, it isn't.

Just getting .75-ounce glass cloth out of the package without wrinkles and snags is difficult for me, and just about everyone I've talked to. Here's a better way, based on some ideas from Rex Hinson:

Before you open a new package of lightweight glass cloth, get a large sheet of corrugated cardboard. Carefully spread the glass cloth out on the cardboard, making sure the threads are straight. Then spray with a light coat of nitrate dope. This will lock the threads together, stiffen the cloth slightly, and make it much easier to cut and handle.

Dope the part you are covering, again using nitrate. A couple of thin coats, sanding with 220 or 320 paper between coats, should do it. Lay the cloth over the part and brush on lacquer thinner. Even on compound curves, the glass cloth with mold to the shape with very little effort.

Dope around the edge with nitrate, allow to dry, and trim with fine sandpaper. Allow the dope to dry throughly for several days, then brush on a coat of epoxy laminating resin, such as West Systems. I use a fine-textured sponge that's made for applying makeup. Don't get too heavy-handed with the epoxy, or it can run. Sand smooth after the epoxy hardens.

Star Link: Noted California modeler Allen Brush and Russian Wakefield flier Andrey Burdov have teamed up in an international joint venture to bring high-quality rubber kits to the American market. Their collaboration, called Star Link, offers F1B Wakefield, F1G Coupe, and P-30 kits, parts, and finished models.

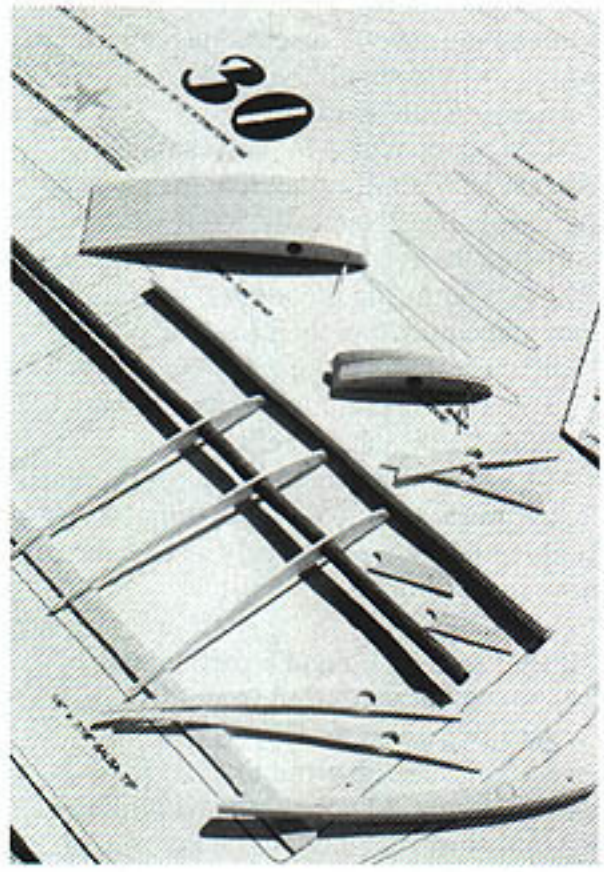
The Burdov name should be familiar to many in the Free Flight community; his popular Sweet G Coupe has been available for several years. Star Link will continue to offer the Sweet G, as well as several other Coupes:

The Candy G is a simple, entry level model with a carbon-tube wing structure and a Montreal front end. Costs for the kit is $99; a ready-to-fly version is $149. (Shipping is not included in all prices shown.)

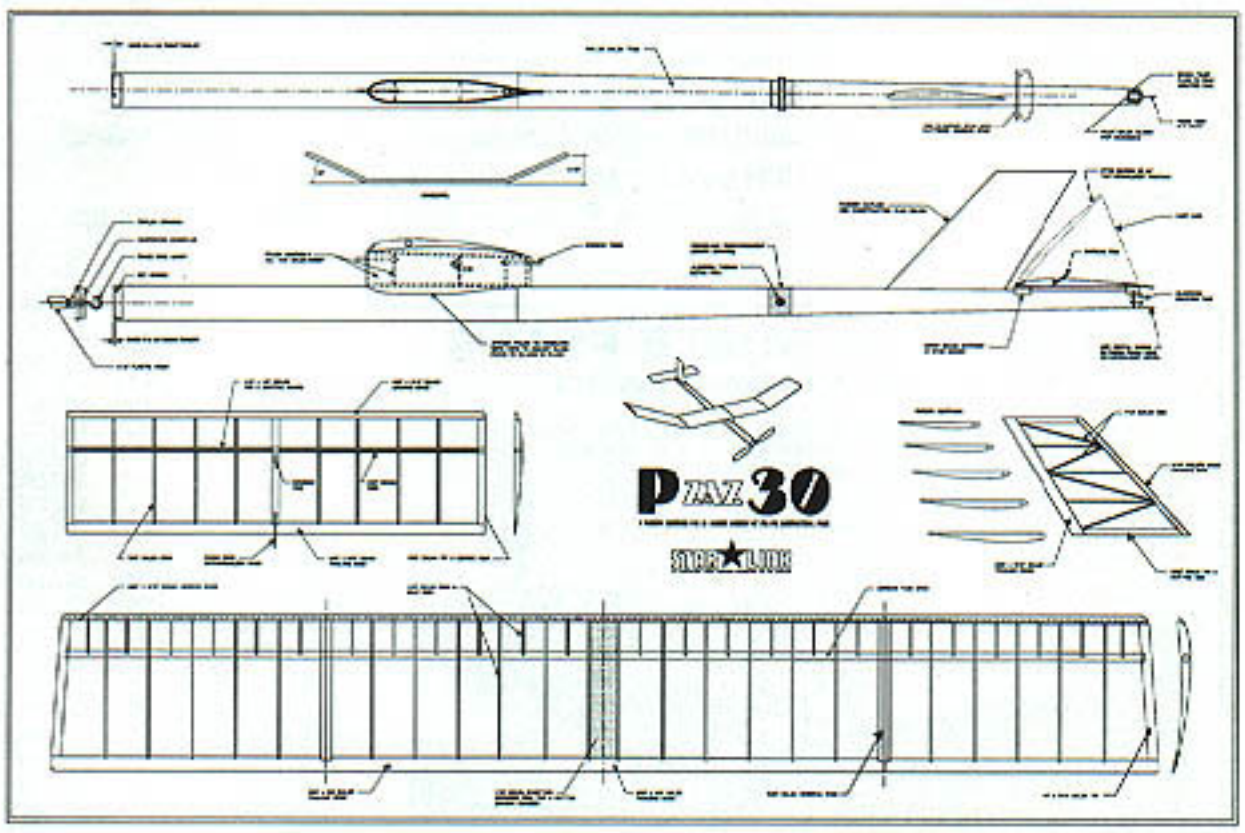
The Sweet G features VIT (Variable Incidence Tailplane) and auto rudder. It lists for $399 ready-to-fly or $333 for a kit with the flying surfaces built. It is also available as kit requiring wing assembly for $299.

The even-more-advanced Honey G and Sugar G also use a timer-operated wing wiggler to control the power pattern. (The wing wiggler holds the left wing at a couple of degrees negative angle relative to the right wing, to introduce a slight left roll to reduce the familiar tendency of a rubber model to drop its right wing at the end of the power burst.)

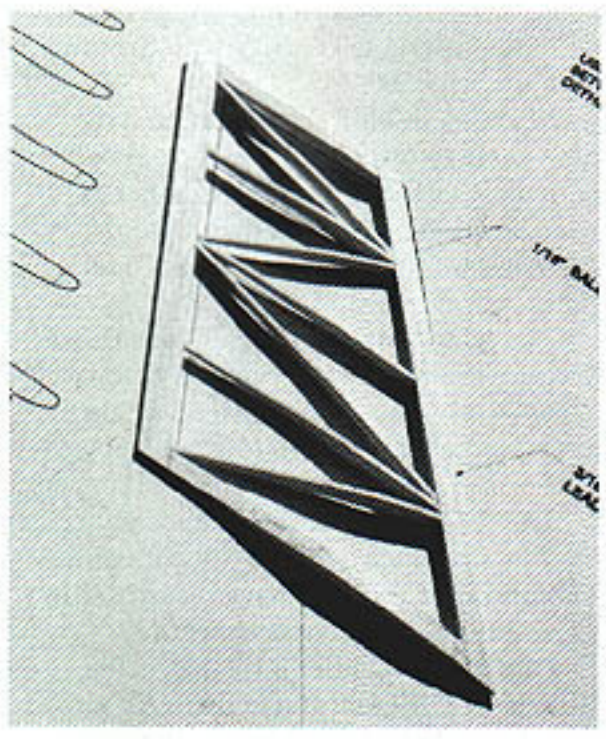
The Honey G uses a carbon-fiber tube wing structure; the Sugar G uses a carbon-fiber D-box wing. Both are available with optional DPR (Delayed Prop Release) front



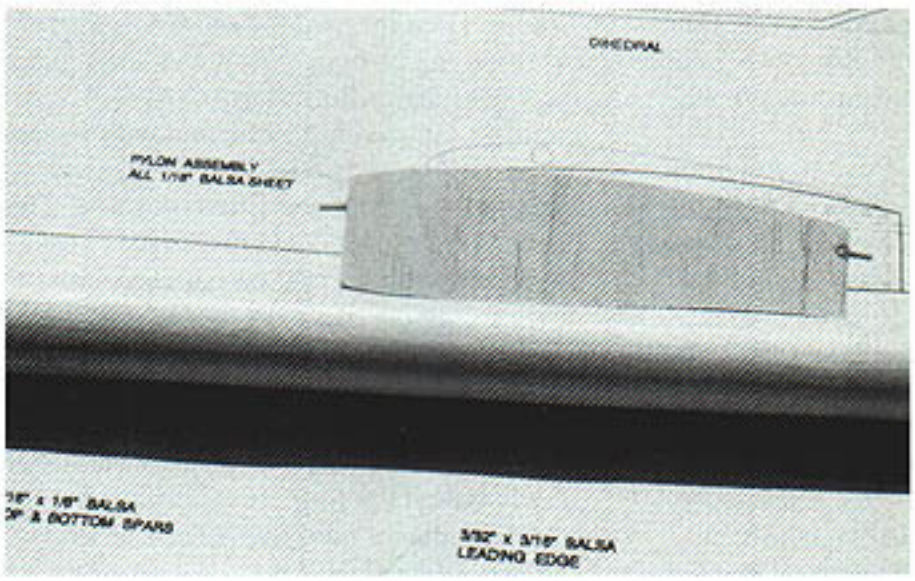
Wing ribs are precut, with holes drilled for the carbon tube. False ribs are made in twos, and cut apart for use.



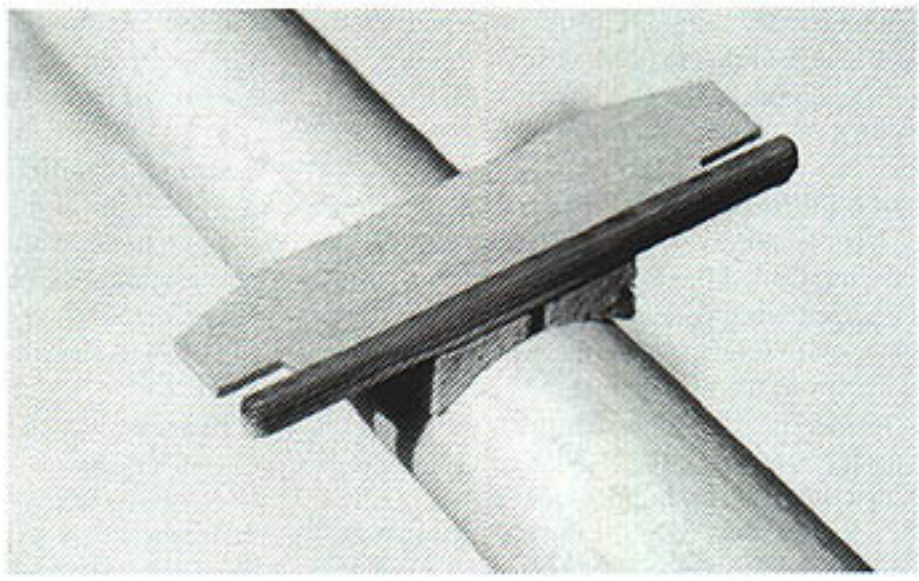
The new P-30 kit available from Star Link features a rolled balsa fuselage and carbon-fiber tube spar. The P-ZAZ-30 kit sells for $66.



The kit's rudder comes ready-made, with a lifting section to give left turn.



The pylon and rolled-balsa fuselage are also almost ready to use. Note the bamboo pegs for wing hold-down bands.



The stab mount features a thin plywood platform with bamboo stop. Balsa blocks on bottom are preshaped to fit fuselage.

end in place of the standard Montreal-type front end.

The Honey G sells for $477 ready to fly with Montreal front end ($499 with DPR front end). A kit is in the works.

The Sugar G kit, with Montreal front end, sells for $399. The ready-to-fly version is $499.

Star Link also stocks an extensive line of Coupe parts and components, ranging from a set of carbon-fiber D-box wings, ready to cover ($93) to a special case for your models ($110).

Two F1B Wakefield models are also offered: the entry level STARter and the advanced WIN STAR. The STARter uses a carbon tube wing spar, a Montreal-stop front end, and a two-position rudder. The ready-to-fly version of the STARter is $222. The WIN STAR is a full-house Wakefield with wing wiggler, three-position rudder, DPR, and carbon-fiber D-box wing.

Alan has been flying these models for several years to great effect, including winning the America's Cup. All of the components for the WIN STAR are available separately. I can speak from experience about the high quality of the DPR front end and Andrey's excellent prop blades.

P-ZAZ-30: Of particular interest to AMA rubber fliers will be the P-ZAZ-30 kit. This is a very well-thought-out kit to fit our popular P-30 event.

This event is not flown in Russia, so it is interesting to see how Andrey has designed and detailed this model. What he has come up with is a small, all-weather P-30. (Small relates only to the wing chord; P-30 rules restrict overall length and span to 30 inches maximum.)

The P-ZAZ-30 has a wing chord slightly less than 4.5 inches, giving an area of approximately 130 square inches. The motor base is roughly 19 inches; that's shorter than many P-30s.

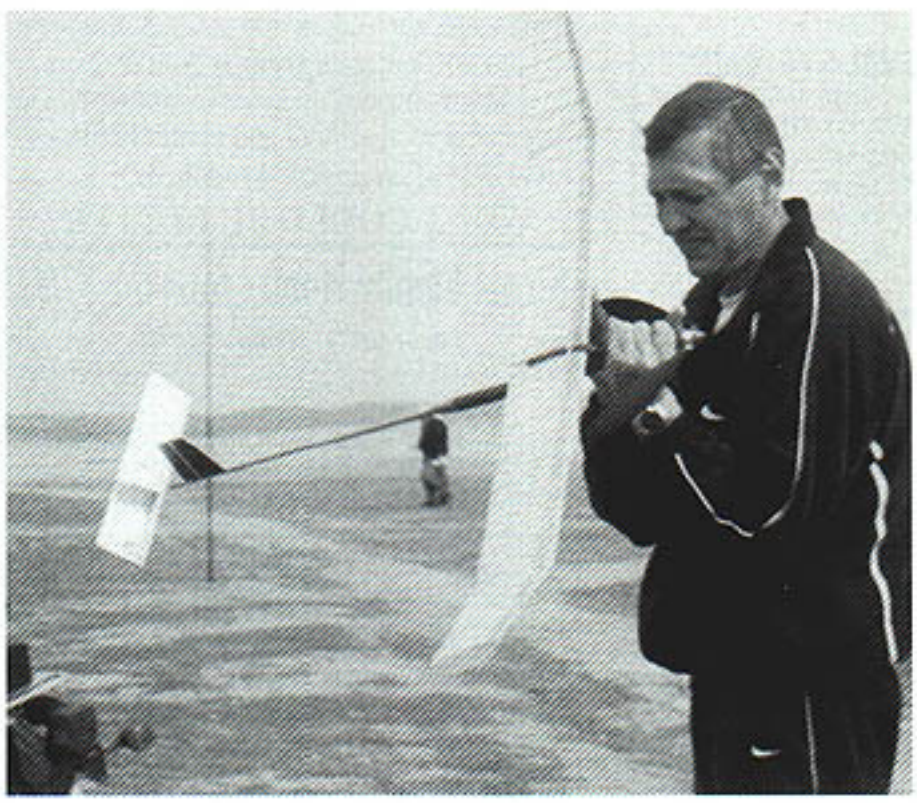
The kit, which lists for $66, is very complete, with extensive prefabrication.

The fuselage is a rolled balsa tube, covered inside and out with white tissue. An aluminum nose ring is already in place, with the correct amount of right thrust and downthrust sanded in. The rear peg location is reinforced with fiberglass tape and the holes neatly predrilled. Interestingly, the fuselage taper starts well in front of the rear peg. The pylon is also already assembled and sanded to fit over the round fuselage.

The wing uses a carbon-fiber tube spar, with precut ribs threading over the spar. Rib spacing is 1¼ inches, with false ribs to help preserve airfoil shape. These false ribs were made double-size; each is cut apart at the center of the hole to yield two false ribs that fit between the leading edge and spar. The leading edge and trailing edge are balsa. The trailing edge strips are notched to receive the ribs, including the special thick ribs for the dihedral breaks.

The stab construction is conventional, with top and bottom balsa spars. The rudder is preassembled, sanded to airfoil shape. Even the stab mount is ready-made. It consists of a thin plywood platform, a bamboo stop at the front, and two balsa blocks on the bottom, preshaped to fit the round fuselage.

The model is designed to use a conventional pop-up-stab DT (dethermalizer),



Star Link also has a wide range of F1G Coupe models designed by Andrey Burdov. He's holding the Sugar G version here.



Delayed-Prop-Release Sugar G is launched one-handed with a hard, vertical throw, then the prop blades start turning.

but a pop-off-wing DT could be rigged. (Pop-off wings are often used on small, lightly-loaded models like P-30s to help get them down from strong thermals.)

In addition to the P-30 kit, Star Link also offers an almost-ready-to-fly version for fun flying. Called the P-ZAZ, this version offers finished wing panels and stabilizer. All that is required to complete the wing is attaching the tips to the main panel, and covering. (Evidently Alan feels that the level of prefabrication on the P-ZAZ is too high to meet the AMA's builder-of-the-model rule.)

Even if it is only for fun flying and not contest work, the P-ZAZ would be a good way to introduce someone to Free Flight Rubber. Price for the kit is $88.

Andrey and Al should be congratulated for this very ambitious effort to make high-quality rubber kits and models available for very reasonable prices. The quality of the product and the packaging is very high.

For more information, write Star Link, 25500 Aquila Ct., Sun City CA 92586. Enclose $2 for an illustrated catalog. You can also reach Al at (909) 301-9975 (phone and fax) or E-mail at abrush@inland.net.

Getting a Handle, Part Two: If you think that the lightweight fiberglass cloth is tough to manipulate, wait until you try the Russian unidirectional carbon! This is a thin non-woven carbon that comes in rolls.

As the name implies, all the fibers run in one direction, although there are cross-grain threads every ¼ inch or so. But trying to cut this stuff is almost impossible. No matter whether you use scissors or a sharp razor blade, the fibers will take off in all directions once you start making the cut.

British modeler Mike Woodhouse came up with an excellent solution to the problem: attach the unidirectional carbon to a sheet of adhesive-backed plastic before cutting. I gave the idea a try recently and it worked perfectly, with only one minor hitch.

Here's what I did:

I unrolled the unidirectional carbon on a clean surface (I use butcher paper). Then I placed a sheet of adhesive-backed clear plastic over it and gently pressed it down. The material I used came from an office-supply store, where it is sold for covering and protecting book covers or documents. Usually it is in the section with binders and report covers.

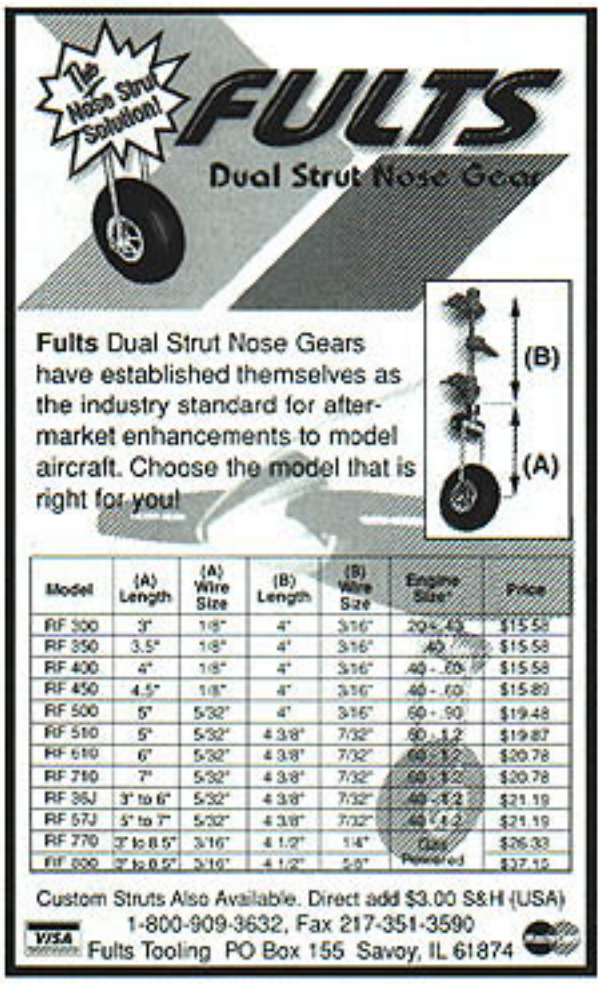
I cut the carbon/plastic sandwich to the desired shape, leaving a ¼ inch extra all around. Then I turned the sandwich over, exposing the carbon, and spread laminating resin over the carbon. (I use a plastic laminate sample chip.) I blotted with paper towel until no resin showed on the towel. Then the sandwich was lifted off the butcher paper (wear gloves), and placed over the balsa part, with the wetted-out carbon in contact with the balsa. Then it was vacuum-bagged until the epoxy hardened.

Getting the plastic film and the adhesive off was the only hard part. I used a single-edge razor blade to get a corner started, then slowly pulled the film off. This left a very sticky residue of adhesive. I tried several solvents and had the best luck with MEK (Methyl Ethyl Ketone). Be sure to do this outside, and follow safety instructions on the container. It still took a good bit of scrubbing.

Another solvent that might be worth a try is lighter fluid.

Mike Woodhouse had originally suggested this technique for molded carbon and Rohacell foam propeller blades for rubber models. I used it to make some carbon-capped rib blocks, which were then sliced off, salami-style, to make stab ribs.

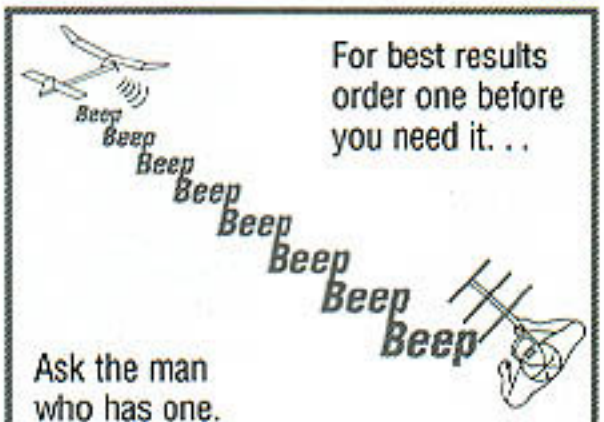
The same idea could also be used to make carbon-capped spars. Simply epoxy unidirectional carbon top and bottom on a sheet of thick balsa, then slice off spars of the desired width. You could even sand the balsa to a taper first for tapered tip spars. MA



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RF 500	5"	5/32"	4"	3/16"	.60 - .90	$19.48
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RF 610	6"	5/32"	4 3/8"	7/32"	.60 - 1.2	$20.78
RF 710	7"	5/32"	4 3/8"	7/32"	.60 - 1.2	$20.78
RF 36J	3" to 6"	5/32"	4 3/8"	7/32"	.40 - 1.2	$21.19
RF 57J	5" to 7"	5/32"	4 3/8"	7/32"	.40 - 1.2	$21.19
RF 770	3" to 8.5"	3/16"	4 1/2"	1/4"	Gas Powered	$26.33
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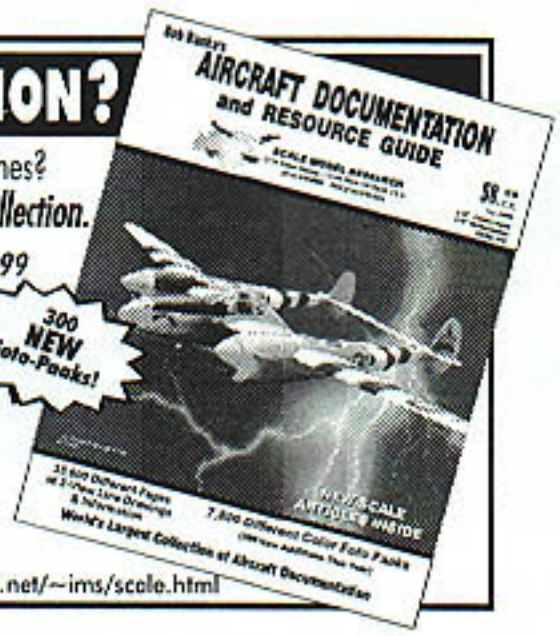


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THREE-VIEW Requirements: Record applications require a three-view of the model. The three-view must include enough detail to allow a reviewer to verify the model's legality. Prop diameter, pitch, and blade outline are required. A plan view of the model should have all major dimensions, including dihedral. There should be enough information for others to duplicate the model or compare their model to yours.

Note: although the Contest Director must process the model, it is the contestant's responsibility to furnish an adequate three-view.

Indoor List: For approximately three years, I have maintained an E-mail list of persons interested in Indoor flying. At present, there are 117 fliers who receive news of Indoor happenings as soon as I get the word.

Some time back, there were more than 140 names on the list, but the list was compromised by a crashed server. If you were originally on the list and no longer receive mailings, or if you would like to join the list, send an E-mail request to rten@metronet.com and I'll add your name to the distribution list.

Is Your Club Lucky? If your club has a newsletter, you are ahead of clubs that don't! I honor the editors of all the club newsletters I get; they work long hours and don't get nearly enough article contributions to make their job easier. They also don't get many models built!

This is a salute to all those club newsletter editors, no matter how small or large an issue they put out. When the next issue of your club newsletter arrives, think about how *you* can help the editor with future issues.

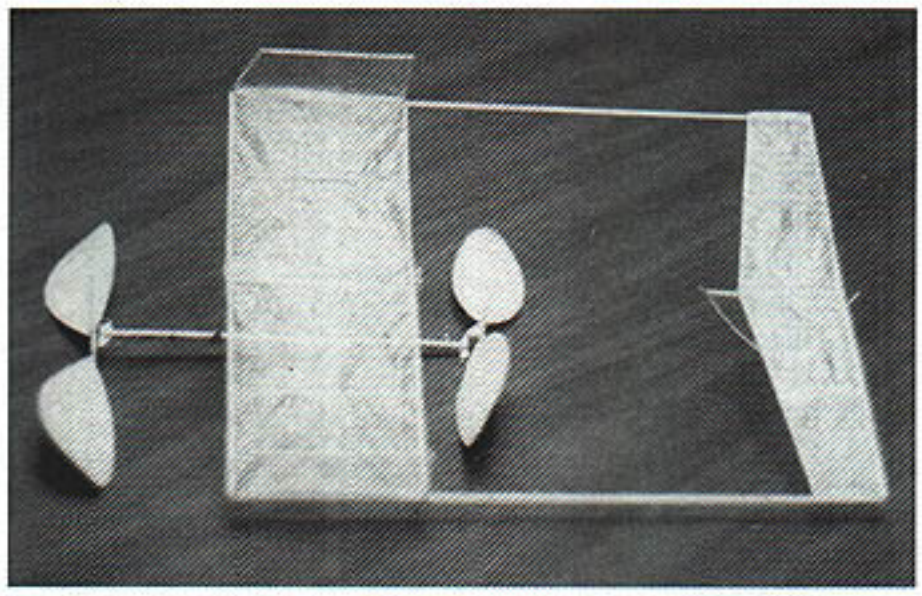
A previous column presented a method of laminating balsa, but I had lost track of which newsletter published the article. Dan O'Grady, editor of *SAM 86 Speaks*, sent word that the piece on laminating wingtips by Jim Anderson was published in that newsletter.

Dan does an exceptional job with *SAM 86 Speaks*, presenting a good mix of news, humor, and how-to pieces. Thanks, Dan!

Tiplets: At the 1999 USIC, Steve Gardner won Limited Pennyplane with 16:34—a site record for the class. I asked Steve for some comments about the tiplets featured on the model:

"As to the Bent Penny and its wingtips, I have found that the tiplets allow the wing to use much less dihedral without any stability problems. It is sort of like a flat wing of max legal area with the stability coming from area not counted in the max area/span rule. I am sure that there are some small benefits from the reduction of the wingtip vortices as well, and your idea of area below the wing surface might bring additional benefits.

"The tips on the Bent Penny were sized by the needed area to give the proper dihedral effect. At the speeds these models fly, I expect that the tips could be smaller and still reduce drag."

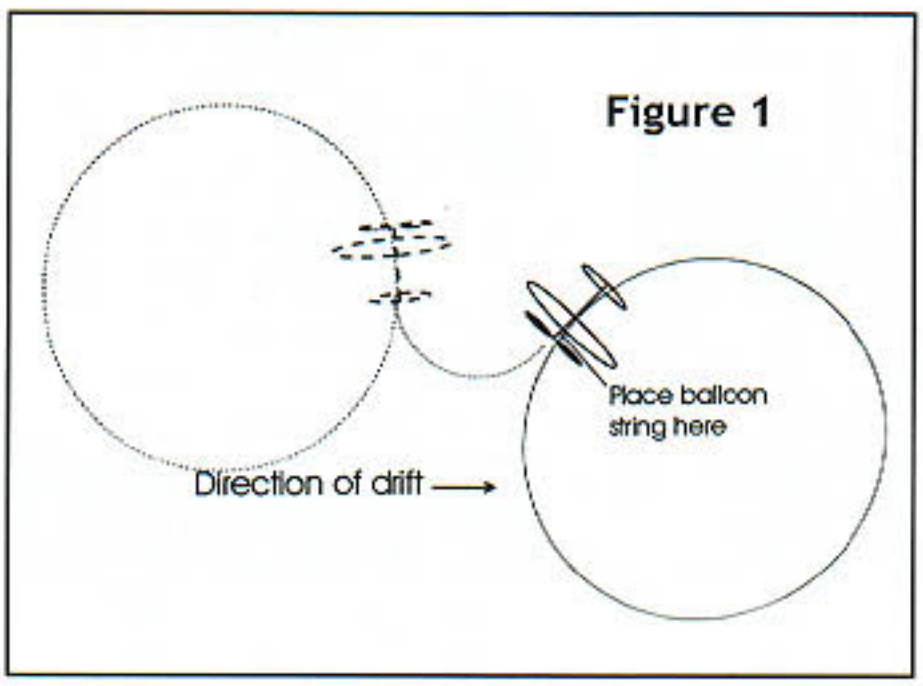


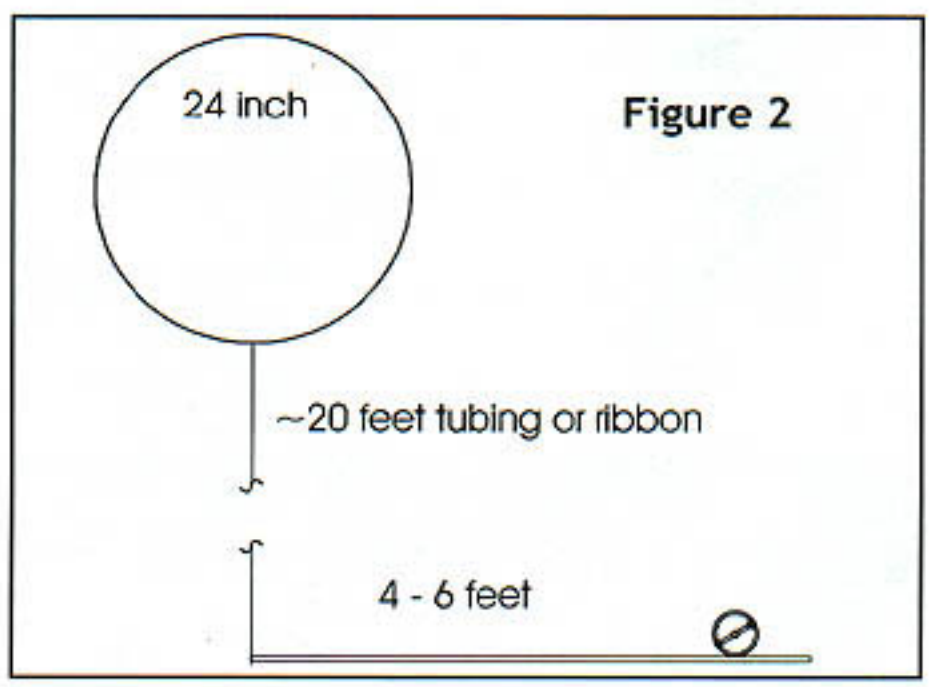
One more MiniStick experiment by Jim Clem: the Bob Lockhart Special. (See text) Clem photo.

Rubber Motor Storage: Several years ago we had a big flap over rubber motors suffering heavy deterioration between seasons, or even between flying sessions. The problem was solved by changing the type of envelope used for storing motors.

Tony Italiano reported the following in an issue of *Free Flight*, credited to Flightmasters. This came by way of correspondence from Boyd Felstead of Australia.

"There has been concern by rubber modelers, especially Indoor ones, of rubber deteriorating when stored in plastic or paper envelopes. The Australians have found that the culprit is polyvinyl chloride (PVC) which is outgassing vinyl chloride (VC) from the





plastic bag. VC is bad for rubber, as well as being a carcinogenic element (which may be disputed).

"Some plastic bags are made from PVC and polyethylene. Manufacturers of bags may call their bags, say, polyethylene or polythene or polyester, but the formula has dozens of variations in the recipe. Bags made from polyester, however, are chemically inert and will not harm rubber. Polyester bags are called "oven" bags which melt at approximately 280C or 536F. It is advised that rubber be stored in polyester bags, but *do not* overwrap with polythene bag, as the molecules of VC gas will penetrate through the polyester bag and "chew" up your selected rubber!

"A simple test is that polyethylene (polyester) smells like a burnt candle when ignited, whereas PVC has an acid smell when burnt.

"There is an alternative, translucent paper envelopes (called cassine or glassine) used by stamp collectors. They are available from stamp shops and the postal service. So, store your rubber in oven bags or glassine, whichever you prefer."

Steering techniques: Steering an Indoor model is either a necessary strategy or an emergency action, depending on the circumstances. Steering is often undertaken with trepidation, usually too little and too late.

Any serious Indoor flier, regardless of which events are involved, needs to know a lot about steering.

Before steering poles were permitted, steering was done only with balloons.

The process of steering is simple in concept, but practice is required to make it work. Figure 1 shows the most basic steering action. The solid circle represents the current orbit, and the dashed-line circle shows the desired new orbit.

With the balloon higher than the model, move the balloon so the string goes behind the prop and ahead of the wing leading edge. When the string contacts the motorstick, let the model fly forward against the string while you move the balloon to the side. The model can then be guided into the new orbit and released.

The location of the new orbit is set by where you intercept the model in the previous orbit, and by how far you move the model before releasing it.

Cat. I steering is much different from high-ceiling steering because the models get very close to the ceiling. Any balloon small enough to be useful for steering a model near the ceiling has so little lift that it has no maneuverability; if the balloon has enough lift to be useful, it will be too large to allow the model to contact the string.

The only viable tactic is to let the prop or a wingtip hit the balloon. If the model doesn't stall and lose too much altitude, you can snag the model with the string and move it to a new orbit.

Dedicated Cat. I fliers own steering poles. The original rules limited steering pole length to two meters minimum and eight meters maximum. (A later ruling removed the limits; Richard Doig suggests that a toothpick is now legal for steering!)

For many years, fliers have used collapsible telescoping poles made from fiberglass. These poles are called crappie poles and are available from bait-and-tackle shops. Most such poles extend to at least 20 feet, and require considerable skill and practice for best results.

Part of the problem is that the two smallest-diameter sections are limber enough to start whipping around if you don't move very carefully. Modern technology (Kevlar®) is now being used to build smaller-diameter, lighter poles that are much stiffer than the fiberglass poles.

Poles have another down side: in flat ceilings when the model is close to the ceiling, it is very easy to jam the pole tip into the ceiling. This disrupts your aim, timing, and sometimes the model!

Balloons need to be sized according to the site, and your choice of pole can enhance your steering prowess. It is possible to modify poles to improve their effectiveness:

1) Aluminum tubing inserted into the bottom section extends the pole length by (for example) four feet, to extend your reach.

2) Precision aluminum tubing can replace the most flexible upper extension. Any balloon used for steering must have enough lift to readily follow your movements as you try to catch the model. This is especially important when steering in high-ceiling sites.

Typically, a high-altitude balloon is large enough to lift a large fishing reel mounted on a short pole (four to six feet) plus some additional weight. This much lift is needed to make the balloon track your movements quickly: if you move the bottom end four feet, the balloon must not take longer than approximately five seconds to catch up.

Figure 2 shows a typical high-altitude setup. A soft (low-lift) balloon can be used to intercept a drifting model or to snag the model to bring it down so it won't foul another flight. It will *not* be useful to safely move the model's orbit to prevent drifting into obstacles if the model is higher than about 50 feet.

I experimented with party balloons and found that a party balloon advertised as 11-inch diameter retains adequate lift for steering in Cat. I for at least four hours, when using very lightweight string. At the Bedford TX site (which has a Quonset™-type curved ceiling), I was able to catch a model in the center of the building, below the peak, and move the orbit as needed.

Lockhart Special: Aeromodeling pioneer Bob Lockhart inspired Jim Clem to built yet another MiniStick, shown a photo. Counter-rotating props cancel torque so well that the model resists turning, despite lots of rudder offset! MA

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CONTROL LINE *SCALE*

Bill Boss, 77-06 269th St., New Hyde Park NY 11040

AN EASY and not-too-expensive way to get started in Control Line (CL) Scale is by building, modifying, and flying a Hobby Hangar kit, according to Chuck Snyder of Cincinnati OH.

Chuck said that he always thought the Typhoon was a good-looking airplane, and when he saw the Hobby Hangar kit at the Toledo Show in April 1999, he just had to have one.

The Typhoon is a laser-cut kit intended for Radio Control (RC) Combat, but it converts easily to CL with the addition of a bellcrank platform and a three-line bellcrank used for controlling the throttle of a Fox .25.

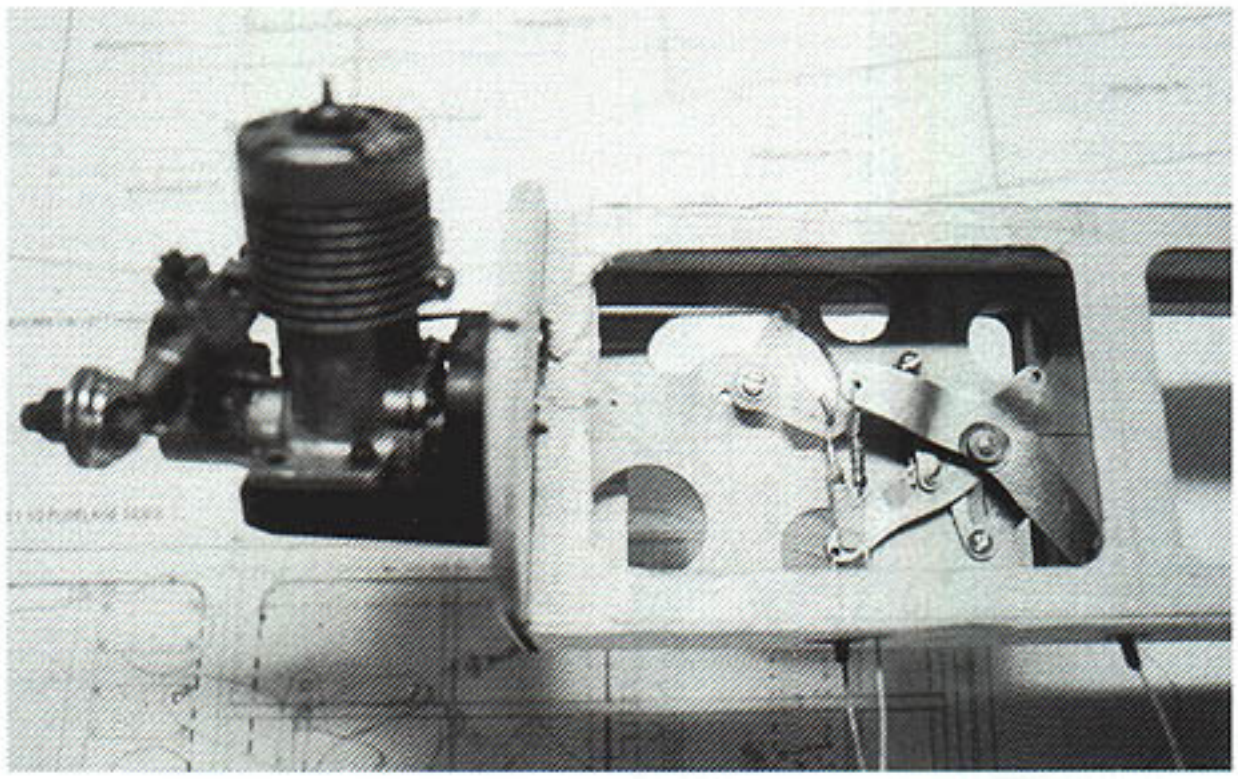
The positioning of the bellcrank allowed room for the fuel tank to be placed above and forward of the bellcrank.

One of this month's photos shows the installation of a standard three-line bellcrank, and the use of a secondary nylon bellcrank, which is required to attain the proper throw for operation of the engine-throttle linkage.

Note that there are lightening holes in the bellcrank platform, in an effort to keep the model's weight down.

Chuck also pointed out that the engine weight, the position of the bellcrank, and the position of the fuel tank produced a well-balanced model, and required no additional nose weight.

Chuck said that the Typhoon flies well for a small model, and that there are many RC Combat kits on the market—some of them look very good. The kits almost eliminate the excuse of Scale being too expensive or too complex to build.



Three-line bellcrank system in Chuck Snyder's Typhoon. Intermediate bellcrank used for obtaining proper linkage throw for operation of engine throttle.

Club members Jim Moore and Larry Tenoever are building their own models, after seeing Chuck's Typhoon fly. Jim is building the Hobby Hangar P-47, while Larry has the Seafury under construction.

In addition to the Typhoon and P-47, Hobby Hangar has a fine-looking Gee Bee Model Z with a 57-inch wingspan, a 50-inch S.E.5a, and a 51-inch Fokker D.VII that can easily be converted, and get you started in CL Scale.

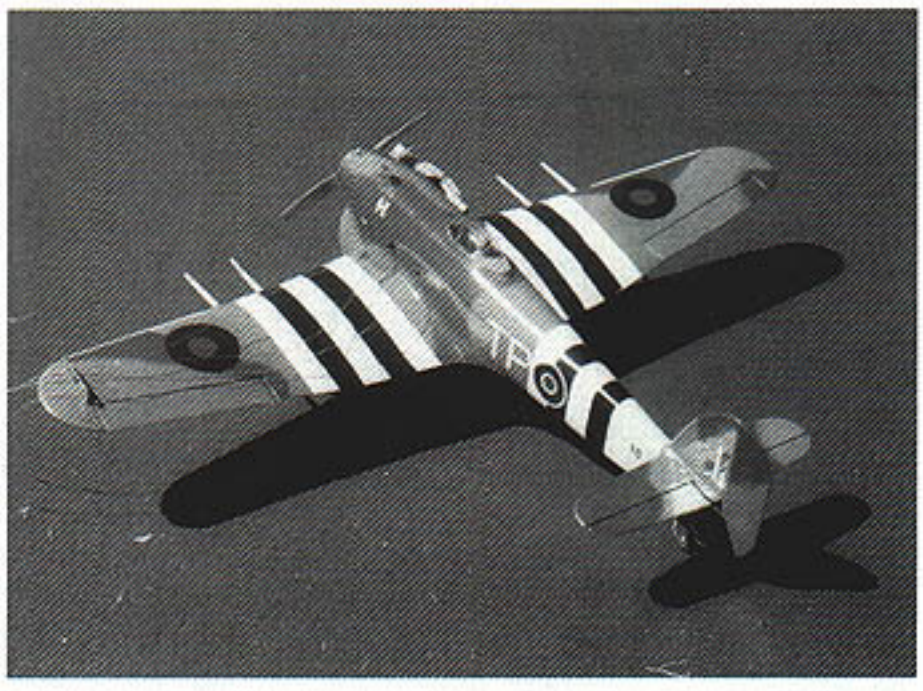
Chuck plans to enter his model in local meets that feature Fun Scale. He has also pledged a six-pack of soda to club members who have a model flying by Memorial Day; he hopes to pay off big.

You can get more information about Hobby Hangar products by writing to them at 7715 Industrial St., West Melbourne FL 32904, or by logging on to their Web site at www.hobbyhangar.com.

Something From the Past: Jack Stolly (Dallas TX), a retired lieutenant colonel



P-38 Lightning by Jack Stolly (Dallas TX). YIPPEE color scheme of 5,000th P-38; now in Frontiers of Flight Museum, Love Field.



Chuck Snyder's Hawker Typhoon Fighter-Bomber (Cincinnati OH). Hobby Hangar RC kit. Fox .25, 3½ pounds, 41-inch wingspan.

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of the United States Air Force (USAF), sent some photos and information on his P-38 Lightning.

Many of you might remember Jack from the 1986 Nationals, where he placed first in Sport Scale, and was awarded the National Association of Scale Aeromodelers (NASA) Flight Achievement Award.

At that time, Jack's P-38 was painted in an olive-drab color scheme, taken from the P-38 on display at the United States Air Force Museum at Wright-Patterson Air Force Base (Dayton OH).

The model has taken on a new look—that of the 5,000th P-38 off the Lockheed assembly line, in the famous YIPPEE color scheme.

The model featured landing gear and Fowler flaps that were electrically operated, and functioned in scale time. The Fowler-flap operating mechanism was outstanding in this model, and was completely hidden within the wing structure; no linkage or hinges could be seen to spoil the Scale appearance of the model.

Jack said that "the Fowler flaps were most-effective in bringing this rather heavy model floating in like a butterfly on landings."

The throttle and wheel-brake features were controlled by a standard three-line control system.

Extensive picture coverage of this model's construction, as well as plans and a construction article, were published in the February 1988 *Model Aviation*.

Jack tells me that his P-38 Lightning YIPPEE resides in retirement at the Frontiers of Flight Museum in the Love Field passenger terminal (Dallas TX).

Shop safety during model-building is not only essential for your own well-being, but is also important for the protection of others who may be in same household

The following suggestions by Mike O'Donnell originated in *The Beacon* (Joe Bachman, editor) and were in a recent issue of the Indy Sportliners newsletter. The suggestions relate to shop safety, whether it be at home or otherwise.

• *Chemicals and Solvents:* The storage of chemicals in the shop can be dangerous. If possible, store chemicals away from the house, in an outside shed.

Pay close attention to the types of chemicals and solvents you store together. If chemicals are not properly stored, there is a chance that they might explode, or start a fire.

• *Eye Protection:* Always use proper eye protection when grinding, spraying, chipping, or sanding. A pair of safety glasses is a necessity in the shop.

• *Lung Protection:* Use a respirator when sanding, spraying, or mixing chemicals, working with solvents, or cleaning up a dusty shop. There are all kinds of respirators, so make sure you're using one for the job you're doing.

• *Open Flames or Hot Tools:* Keep a fire extinguisher handy at all times. When using open flame, such as a butane torch, watch the direction the flame is pointing, and keep clear of flammable items.

When using a soldering iron or covering iron, keep the area clear and use a bench rest for the iron when possible.

Always turn tools off and unplug them when they are not in use.

• *Hand and Power Tools:* Use the tool for its designed task. Keep tools in top condition. Make sure they are oiled regularly, adjusted, and stored properly.

• Things to do in the Shop: Keep it clean. Keep the floor free of tripping hazards. Keep flammable items away from the hot-water heater and furnace.

• *Things not to do in the Shop:* Do not overload electrical outlets. Do not store solvent rags in open cans. Do not leave paint brushes in open cans of solvent overnight.

• *Checklist of Things to Keep in the Shop:* Fire extinguisher, first-aid kit, eye washout kit, glue debonder, good lighting, smoke detector, eye protection, ear protection, and hand protection.

Safety for yourself and for your family is most important, and it's the only way to enjoy this great hobby, at home and on the field.

Workshop Hint: Bob Furr, a member of the Orbiting Eagles of Omaha, says that he was taught the following many years ago by a school shop-class instructor:

If you use a belt sander in your workshop, you know that the belt gets clogged with bits of glue and wood.

To make the belt last longer, use a chunk of soft rubber like a giant eraser to clean the belt. You can buy rubber belt-cleaning sticks from woodworking suppliers for approximately $7, but the bottom of an old crepe-soled shoe works just as well.

Please send ideas, notice of upcoming CL Scale events, contest reports, and photos of CL Scale activity to me at the address at the top of this column. MA

CONTROL LINE *AEROBATICS*

Frank McMillan, 12106 Gunter Grv., San Antonio TX 78231

ONE OF THE wonderful things in Precision Aerobatics during the past 10-15 years has been the sharing of information. Sure, there's been an explosion of technology, but it's the people who have offered themselves and their knowledge for the advancement of the event.

Many years ago, the famous Garden State Circle Burners club started an annual symposium, which it held each winter. From building techniques to flying, the club covered a spectrum of topics.

Last year, the Dallas Model Airplane Association started an equivalent Southwest Regional, and had an excellent turnout.

Again this year, the Dallas club hosted its annual Stunt forum.

Tom Niebuhr was the organizer, serving as he did for the Garden State Circle Burners. With the help of all participants, Tom put on a varied forum that covered a spectrum of interesting subjects.

Before getting to the technical side of the presentation, we had the usual club, regional, and national activities.

AMA District VIII Vice President Sandy Frank reminded us of the Southwest Aeromodeling Conference on May 19-20. PAMPA (Precision Aerobatics Model Pilots Association) and the Dallas Model Airplane Association will host a booth.

Contact Sandy at 105 N. Brazos St., Weatherford TX 76086-3207; Tel.: (817) 599-7131; E-mail: sfrank69@airmail.net.

Bill Lee, several times a member of US international teams, kicked off the technical presentations with a discussion of propellers and Stunt—or as he titled it, "Of Bumble Bees and Precision Aerobatics."

Bill brought to this discussion a strong background on propellers; he has made his own for the FAI (Federation Aeronautique Internationale) team races, and has made several carbon/epoxy propellers suited to the larger piped engines. The latter are excellent—extremely light and worth trying.

Bill talked about using the Prather pitch gauge, the available standard, and its practical use. He also supported his paper with empirical observations for the Abbott and Von Doenhoff's book, *The Theory of Wing Sections.*

One of Bill's conclusions was that the propellers we use now seem more efficient in terms of advancing the model, versus the theoretical pitch.

In all, it was a very interesting presentation.

The next presentation was by Bob Gieseke and Mike Scott, on the plastic tanks they use and how to set them up for Stunt.

There are advantages to using converted Radio Control tanks, such as consistency and ease of setup. These tanks can be made to run well, as Bob and others—including Bob Hunt and Bill Werwage—have demonstrated throughout the years. Of course, the model must be set up to accept the much-deeper shape of the Sullivan 6- to 8-ounce tanks.

Mike and Bob discussed how to set up the internal tank venting and the fixed aircraft side vents. The ease of setup and the good results show that plastic tanks are a viable alternative to the standard metal tanks.

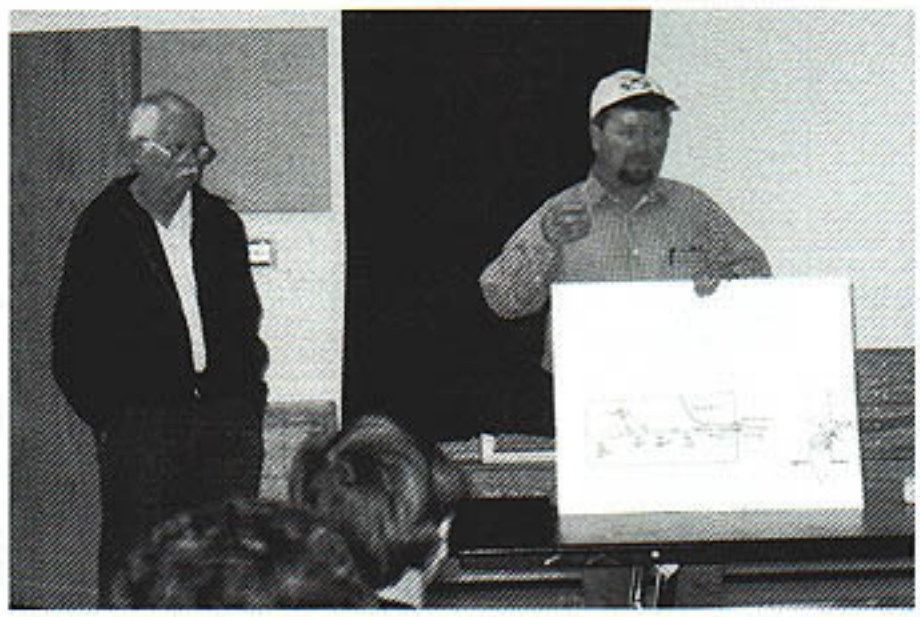
Bob Gieseke followed up with how he covers his superlight models with Japanese tissue.

His approach to finishing is to cover the entire model with .2-ounce carbon veil, then cut out the open bays of the wing. These are covered with the Japanese tissue, and the entire airplane is finished normally.

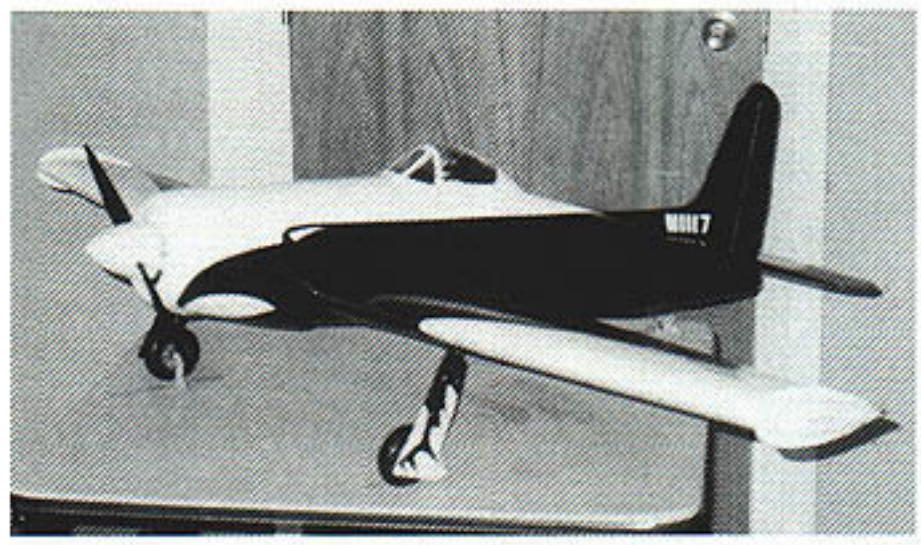
Bob is very specific about the type of tissue he uses—even to the yellow color working the best. He discussed the procedures in



At the Dallas Stunt forum, Rick Ashford (L) learns the tricks of molding balsa shells from the master—Al Rabe (R).



Mike Scott (R) explains how he and Bob Gieseke easily set up their successful plastic tanks for Control Line Stunt.



The latest status of Al Rabe's Bearcat II, with the spectacular Bird of Prey color scheme. It should be ready to fly soon.

detail, such as how he controls the amount of paint by spraying techniques.

(Several light, dry coats are sprayed to seal the surface, then the succeeding coats will remain on the surface, rather than penetrating to make a thicker, heavier surface. That philosophy is applicable to all our finishing.)

Bill Wilson's painting presentation also garnered a great deal of attention. He is a professional auto-painter, and he is reading up on the newest materials and techniques.

Bill had many examples of how he uses airbrushed shading and other materials. He gave a lengthy survey of the new multipart "Poly" paints and how they are used. In particular, he talked about how quickly he could apply a utility finish.

As with any multipart paint, you have to be very cautious in its use. Follow the safety precautions.

From the latest to the sublime, Don Hutchinson showed his Yates Dragon with an original Orwick .29 on ignition. He surveyed the latest in ignition systems, and how to operate the Old Timers. Call it the "Romance of the Early Days"; it's fun and available to all.

There was some interesting news on the new-products side.

John Lowry announced that he is entering the supplier business; he is buying out the Bob Beardon line of Bear products, and he is going to produce his own line of glow plugs. John is also looking at producing several kits, such as the well-known Tom Farmer profile Forerunner and the Bob Gieseke Bear.

Good luck to John; we look forward to seeing his new products.

Host Tom Niebuhr followed with an excellent look at the now-famous lost-foam method of construction. This method features accuracy in developing the ribs, the molded leading edge, and the panel layout.

Tom has used the lost-foam method to build several different types of wings, and he has been very pleased.

The purpose of the presentation was to show the practical side of how these wings are constructed, and the procedures that ensure accurate, light wings.

It's been a long time since we have been treated to some Al Rabe "fire."

Throughout the morning, Al demonstrated molded shell developments, and he molded a set of Bearcat shells. Al showed how he wraps the shells, and how he sands them on the molds.

Part of the discussion focused on the development of the molds, and the techniques involved in ensuring the accuracy and references. Al also discussed how the fuselage is constructed once the shells are completed.

The shells are halves in the Bearcat. The interior structure is added to one half, then the other half is fitted.

Al casually pointed out that you have to be careful about alignment with the semiscales, and that they are a challenge. Bill Werwage calls them "3½ airplanes," because it takes that much effort.

It's good to see Al back and involved.

The Dallas Stunt forum continues to grow in technical presentations and in participants. Thanks to Tom Niebuhr and the Dallas Model Airplane Association for this informative day. Hopefully they will keep the forum going.

I've mentioned the Aero Tiger .36 in this column. I'd seen John Simpson fly his in a Cavalier, and I was impressed. I'd also seen Bill Werwage use one in preference to his best ST .46. I was eager to try one, but I was held up working on my new Venus.

Now I've flown the Venus—a Mario Rondinelli design from 1960. At 620 sq. in. and 40 ounces, I thought this would be a good test.

I've got 16 flights so far, and I am more than impressed. The Aero Tiger runs like a Precision Aero .60—smooth and really powerful. Right now I'm running an 11 x 3.8 Bolly at 11,200, which breaks into a four-cycle in the air. I've flown the Venus in 15+ mph wind, with no problems.

The Aero Tiger .36 is an exceptional engine—well-suited to the .40-size models!

Contact Randy Smith at Aero Products, 1880 Scenic Hwy., Snellville GA 30078; Tel.: (770) 979-2035.

New Products: Accurate measurements are dependent upon your tools.

I saw an ad in *Home Shop Machinist* (a neat magazine) for Inca Rules—a series of innovative precision rulers. They are made from thin steel, and they have laser-cut slots and holes.

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ANOTHER EINDECKER

Like Dick Sarpolus' CL Eindecker in this issue? Next month's *MA* features another Sarpolus Eindecker—this one for RC. It's a 91-inch-span sport version for Quadra 42 power.

AMA Programs for Members

PROMOTING THE HOBBY

Flying Site Help: A comprehensive package of support materials is available free of charge. An excellent video is also available and may be borrowed by chartered clubs. In addition, qualified AMA staffers may visit clubs and local government agencies for meetings regarding site acquisition. Write to the Marketing Department at AMA Headquarters.

Intro-Pilot Program: An intro-pilot program is available to all chartered clubs. Qualified pilots from chartered clubs (limited to three per club) may participate. Instructors can train non-AMA members to fly airplanes during a time period of 30 consecutive days, and students are covered by the liability provisions of the AMA insurance policy. Full details are available from the Membership Department at AMA Headquarters.

Adopt-A-School: The Academy encourages clubs to adopt schools in their localities. Instructional material will be provided by AMA. Many suppliers also provide elementary kits at discounted prices. Commemorative pins and patches are available, upon request, for club members who participate in the program. For further information contact the Marketing Department.

Mall Shows: The AMA Headquarters staff will ship free handout materials to chartered clubs and award a commemorative pin to participants. Clubs need to notify AMA Headquarters 30 days prior to their planned show to allow time for shipping. For further information contact the Marketing Department.

Air Show Team (AST) Program: AMA encourages highly skilled fliers who enjoy performing before audiences to inquire about the AST program. The Academy assists clubs with support and liaison with manufacturers and other suppliers. Teams must meet certain performance standards and annual reporting stipulations. Guidelines for forming a team are available upon request from the Marketing Department.

SUPPORTING EDUCATION

Scholarships: Several scholarships are awarded annually to young AMA members entering a college or university. Annual awards total approximately $20,000. Interested applicants may obtain details by writing to AMA Headquarters.

Educator Support: A classroom package is available to educators who write to AMA Headquarters on school letterhead. This package contains suggestions for classroom activities, lists sources of materials, and identifies other companies and associations which provide documentation and guidance. The use of model aviation techniques by teachers can enhance learning opportunities for students in mathematics and various sciences.

Frank V. Ehling National Model Aviation Museum and Renaud Research Library: Located at AMA Headquarters, the museum and library promote interest and understanding in model aviation through the imaginative use of the museum and its beautiful exhibits, extensive library, and ever-expanding collection. The museum store provides opportunities for visitors to take home souvenirs of their visit, model aviation literature and video, and educational items for young and old alike. Admission is free for AMA members. For non-members the prices are $2 for adults and $1 for ages 6-17. Open daily from 10 a.m. to 5 p.m. EST. Call (765) 289-4236.

RECOGNIZING INDIVIDUALS

Leader Member: A program designed to recognize leaders in the modeling community. Three classifications exist: Administrative, Industry, and Scientific. Members recognized in this program help to administer Academy activities as well as maintain and vote on the AMA bylaws. Information and applications are available from the Membership Department at AMA Headquarters.

Leader Club Program: In an effort to recognize the leadership of the finest and most dedicated AMA Chartered Clubs, the Academy offers the Leader Club Awards. These awards can be earned by any AMA Chartered Club that demonstrates the highest standards of community service, involvement and modeling activity. For further information on qualification, please contact the Membership Department.

Contest Director: Contest Directors are responsible for organizing and running flying events through the AMA sanctioning program. Information and applications are available from the Competitions/Technical Department at AMA Headquarters. Call (765) 287-1256.

Appreciation Awards: Clubs may purchase appreciation awards for flying site providers and others who assist chartered clubs in their endeavors. The AMA certificate is nicely designed and arranged for signature by a club officer. A walnut-mounted plaque, with up to 30 words inscribed by calligraphy and decorated with a gold seal and red, white, and blue ribbon, is only $25 postpaid. For further information contact the Marketing Department.

PARTICIPATING IN WORLD-CLASS AEROMODELING COMPETITION

World Championships: Any AMA member has the opportunity to represent the U.S.A. and AMA in an international aeromodeling competition event. Trials for selecting members of world championship teams are held annually. Details are published in *Model Aviation* magazine. They are also obtainable through the Competitions/Technical Department at AMA Headquarters. All international events are authorized by the Fédération Aéronautique Internationale.

ADDITIONAL BENEFIT PLANS FOR MEMBERS

Overview: The Academy of Model Aeronautics has entered into working arrangements with private companies that have agreed to provide various types of insurance plans to AMA members. These plans are based on the ability to offer advantageous pricing schedules to the large "pool" of membership contacts.

AVAILABLE BENEFITS

Group Term Life Insurance: The insurance company has policies with death benefits of up to $200,000 (in $10,000 increments) available to AMA Members and their spouses, and up to $2,500 for each of their children. Call 1(800) 323-2106 for more information.

Vision Care Plan: AMA is pleased to announce a new vision care benefit program through OUTLOOK Vision Services. A nationwide network of over 3700 eye care professionals can save you and your family hundreds of dollars on all their eyewear needs. OUTLOOK Vision Services offers up to 50% savings on frames, designer frames, lenses of all kinds, options of all kinds, and contact lenses. AMA members may purchase the OUTLOOK program for $6.95 (annual membership) for the entire family, a 60% savings off the regular annual price of $18.00. The plan is simple to use; present your membership card and pay the discounted price at time of purchase - no forms or papers to file. To receive your membership card, forward check or money order for $6.95 to: Outlook Vision Services, 40 N. Center St., Suite 104, Mesa, AZ 85201, 1-800-342-7188.

2000 Membership Application

Academy of Model Aeronautics 5151 E. Memorial Dr. Muncie, IN 47302 1-800-435-9262

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❑ Extra Family Membership - $30.00 This category applies to any one adult who currently resides at the same address as a current Open Member, magazine not included.

_____
Current Open member's name and AMA number

NEW REDUCED PRICE

For those under 19 as of July 1, 2000

❑ Youth Membership - $13.00 - *Model Aviation* included.

❑ Youth Membership - $1.00 - magazine not included.

For those 65 or over as of July 1, 2000

❑ Senior Citizen Membership - $38.00 (Must submit proof of age at time of original application). *Model Aviation* included.

FOR HQ USE ONLY

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Primary Interests: (check one)

Area of participation: (check one)

❑ Control Line
❑ Aerobatic ❑ Racing
❑ Combat ❑ Scale
❑ Speed ❑ Carrier
❑ Sport

❑ Free Flight
❑ Indoor
❑ Outdoor
❑ Scale

❑ Radio Control
❑ Electric ❑ Pylon
❑ Helicopter ❑ Soaring
❑ Pattern ❑ Scale
❑ Sport

❑ Rocketry

Everyone *MUST* read and sign below - Applications without signatures will be returned.
Note: this waiver means that if I am involved in any claim or suit I will not sue the AMA, Inc. I understand that this waiver does not affect my liability insurance coverage.

Safety Code compliance and waiver and release of liability statement.

"**I agree to comply** with the AMA Safety Code for all applicable model operations. I understand that my failure to comply with the Safety Code will result in failure of liability coverage for any damages or claims so caused. I further understand that written notice must be provided within sixty days of the occurrence of any incident.
I am aware that modeling may present hazards to participants and spectators, I exempt, waive, and relieve the Academy of Model Aeronautics, Incorporated (AMA) from all current or future liability for personal injury, property damage, or wrongful death caused by negligence."
This waiver shall be in force at all times I am a member of AMA, and the waiver does not require my re-signature when I renew my membership.

_____
Signature of applicant

_____
Parent or Guardian of applicant under age 18 must also sign form

Membership Benefits

Insurance coverage is effective on the date of receipt at AMA Headquarters of a properly completed application and correct dues payment. Membership ends each year on December 31, regardless of the date a membership application is received. If a magazine is included with the membership, it begins with the first issue available for the year after a correct current application and payment are received; it expires with the issue printed in December (which is dated February of the following year). Membership rates and insurance limits are those in effect at time of printing. Actual cost of dues and amount of insurance coverage is subject to change. Any such changes will be noted at the time of membership processing so that they may be accepted or not.

1999 OFFICIAL AMA NATIONAL MODEL AIRCRAFT SAFETY CODE
Effective January 1, 2000

Model Flying MUST be in accordance with this Code in order for AMA Liability Protection to apply.

GENERAL

1) I will not fly my model aircraft in sanctioned events, air shows, or model flying demonstrations until it has been proven to be airworthy by having been previously, successfully flight tested.
2) I will not fly my model higher than approximately 400 feet within 3 miles of an airport without notifying the airport operator. I will give right-of-way and avoid flying in the proximity of full-scale aircraft. Where necessary, an observer shall be utilized to supervise flying to avoid having models fly in the proximity of full-scale aircraft.
3) Where established, I will abide by the safety rules for the flying site I use, and I will not willfully and deliberately fly my models in a careless, reckless and/or dangerous manner.
4) At all flying sites a straight or curved line(s) must be established in front of which all flying takes place with the other side for spectators. Only personnel involved with flying the aircraft are allowed in front of the flight line. Flying over the spectator side of the line is prohibited, unless beyond the control of the pilot(s). In any case, the maximum permissible takeoff weight of the models is 55 pounds.
5) At air shows or model flying demonstrations a single straight line must be established, one side of which is for flying, with the other side for spectators. Only those persons accredited by the contest director or other appropriate official as necessary for flight operations or as having duties or functions relating to the conduct of the show or demonstration are to be permitted on the flying side of the line. The only exceptions which may be permitted to the single straight line requirements, under special circumstances involving consideration of site conditions and model size, weight, speed, and power, must be jointly approved by the AMA President and the Executive Director.
6) Under all circumstances, if my model weighs over 20 pounds, I will fly it in accordance with paragraph 5 of this section of the AMA Safety Code.
7) I will not fly my model unless it is identified with my name and address or AMA number, on or in the model. Note: This does not apply to models flown indoors.
8) I will not operate models with metal-bladed propellers or with gaseous boosts, in which gases other than air enter their internal combustion engine(s); nor will I operate models with extremely hazardous fuels such as those containing tetranitromethane or hydrazine.
9) I will not operate models with pyrotechnics (any device that explodes, burns, or propels a projectile of any kind) including, but not limited to, rockets, explosive bombs dropped from models, smoke bombs, all explosive gases (such as hydrogen-filled balloons), ground mounted devices launching a projectile. The only exceptions permitted are rockets flown in accordance with the National Model Rocketry Safety Code or those permanently attached (as per JATO use); also these items authorized for Air Show Team use as defined by AST Advisory Committee (document available from AMA HQ). In any case, models using rocket motors as a primary means of propulsion are limited to a maximum weight of 3.3 pounds and a G series motor. Note: A model aircraft is defined as an aircraft with or without engine, not able to carry a human being.
10) I will not operate any turbo jet engine (axial or centrifugal flow) unless I have obtained a special waiver for such specific operations from the AMA President and Executive Director and I will abide by any restriction(s) imposed for such operation by them. (Note: This does not apply to ducted fan models using piston engines or electric motors.)
11) I will not consume alcoholic beverages prior to, nor during, participation in any model operations.

RADIO CONTROL

1) I will have completed a successful radio equipment ground range check before the first flight of a new or repaired model.
2) I will not fly my model aircraft in the presence of spectators until I become a qualified flier, unless assisted by an experienced helper.
3) I will perform my initial turn after takeoff away from the pit or spectator areas, and I will not thereafter fly over pit or spectator areas, unless beyond my control.
4) I will operate my model using only radio control frequencies currently allowed by the Federal Communications Commission. (Only properly licensed Amateurs are authorized to operate equipment on Amateur Band frequencies.)
5) I will not knowingly operate an R/C system within 3 miles of a pre-existing model club flying site without a frequency sharing agreement with that club.

ORGANIZED RC RACING EVENT

6) An RC racing event, whether or not an AMA Rule Book event, is one in which model aircraft compete in flight over a prescribed course with the objective of finishing the course faster to determine the winner.
   A. In every organized racing event in which contestants, callers, and officials are on the course:
      1. All officials, callers, and contestants must properly wear helmets which are OSHA, DOT, ANSI, SNELL, or NOCSAE approved or comparable standard while on the race course;
      2. All officials occupying safety cages must wear protective eyewear;
      3. All course judge officials located on the course must be properly located and positioned inside barrier cages that meet AMA approved RC Racing Barrier Cage requirements set forth in EC actions of October 24, 1998;
      4. "On the course" is defined to mean any area beyond the pilot/staging area where actual flying takes place.
   B. I will not fly my model aircraft in any organized racing event which does not comply with above (paragraph A.) or which allows models over 20 pounds unless that competition event is AMA sanctioned.

FREE FLIGHT

1) I will not launch my model aircraft unless at least 100 feet downwind of spectators and automobile parking.
2) I will not fly my model unless the launch area is clear of all persons except my mechanic and officials.
3) I will employ the use of an adequate device in flight to extinguish any fuses on the model after it has completed its function.

CONTROL LINE

1) I will subject my complete control system (including safety thong, where applicable) to an inspection and pull test prior to flying.
2) I will assure that my flying area is safely clear of all utility wires or poles.
3) I will assure that my flying area is safely clear of all non-essential participants and spectators before permitting my engine to be started.

Separate Code(s) available from AMA Headquarters for boats, cars, and rockets.
ACADEMY OF MODEL AERONAUTICS, 5151 EAST MEMORIAL DRIVE, MUNCIE, INDIANA 47302-9252

Wanted: How-Tos

Model Aviation is soliciting how-to-do-it articles from its readers and contributors.

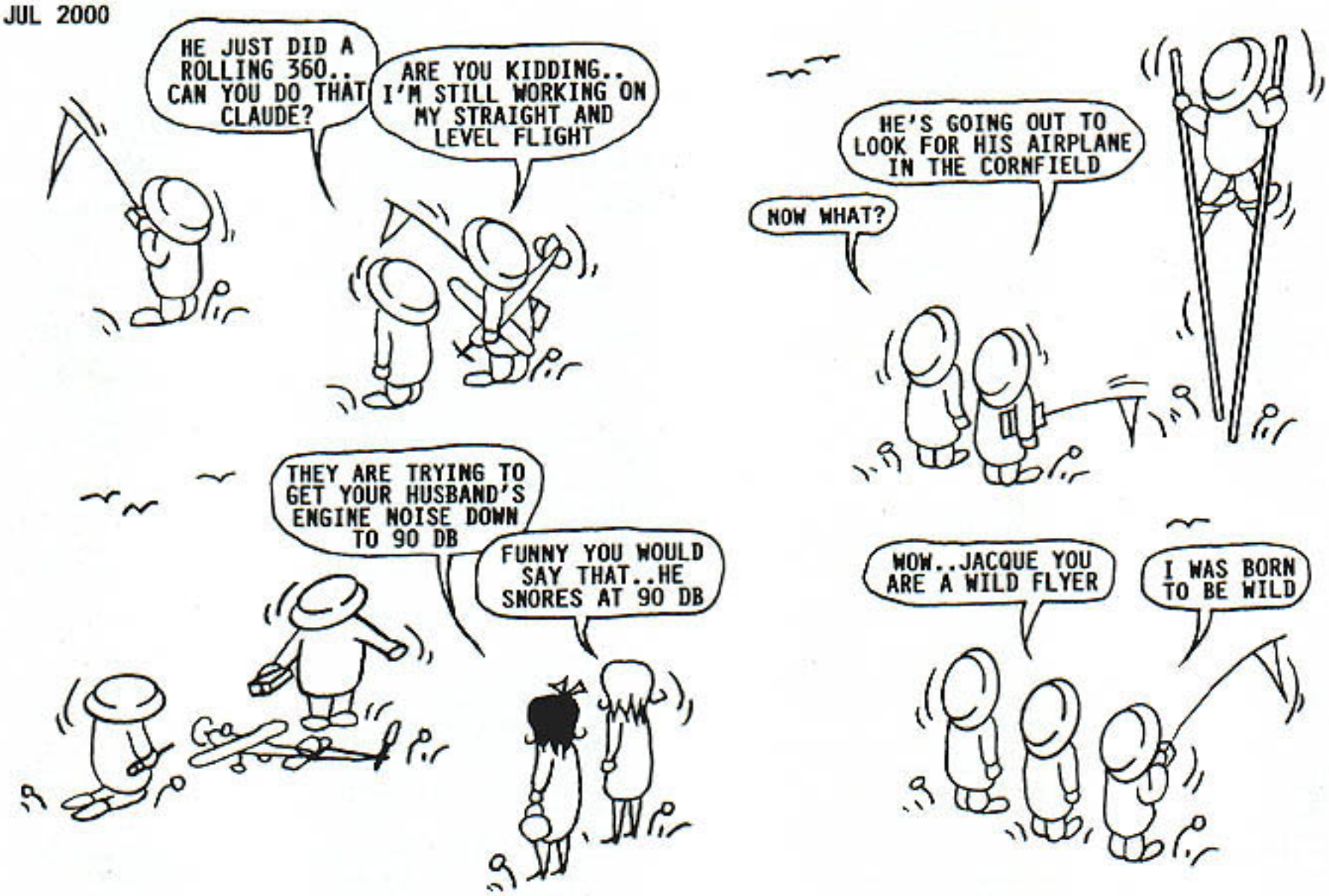
Do you have a special modeling skill, or a unique way to solve a particular problem? Can you explain what makes your method work? Can you handle a camera (or know someone who can)? Consider writing a how-to article. Chances are good that many others can benefit from your tips and techniques.

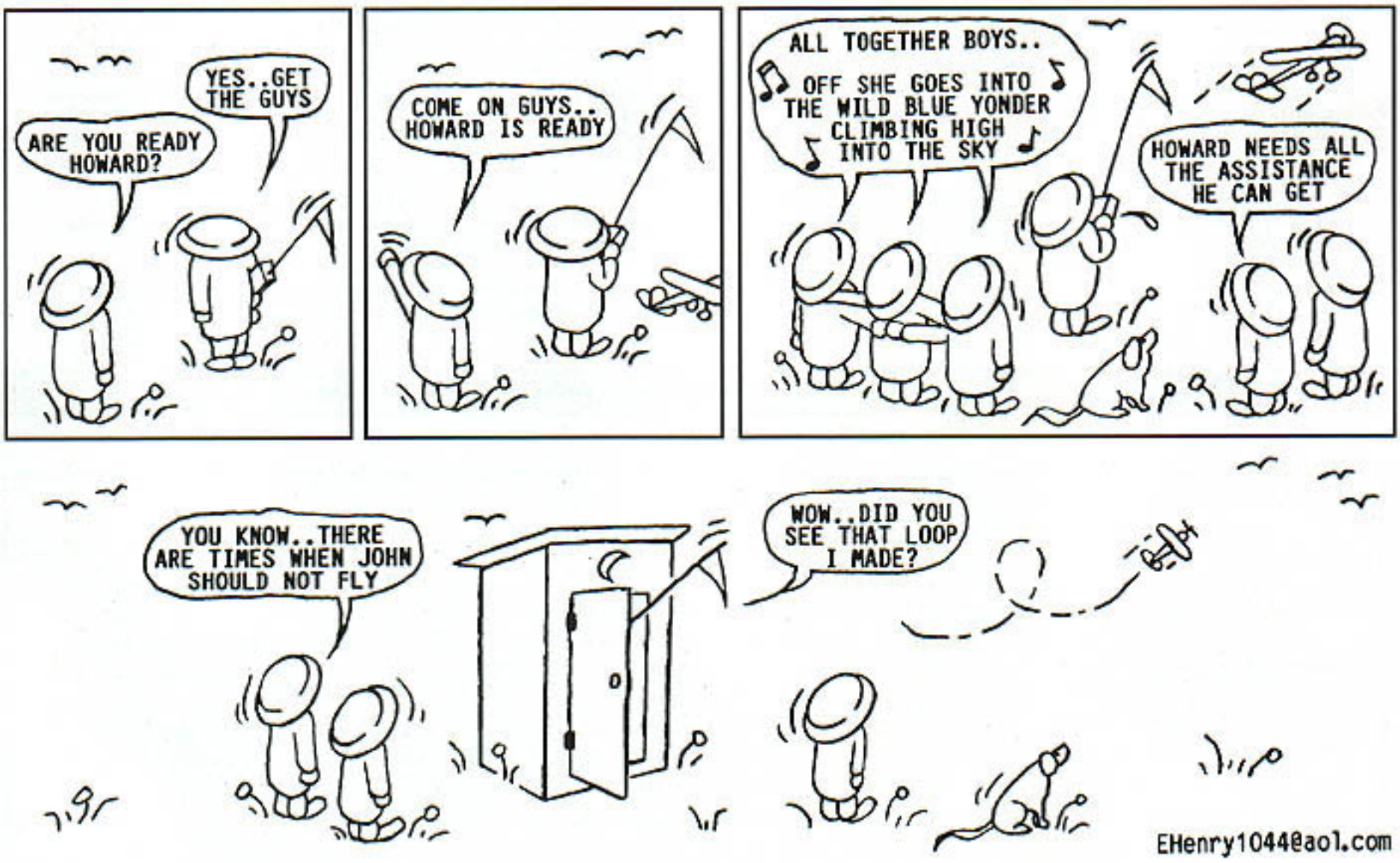
Send a cover letter about your topic to the attention of the Executive Editor, 5151 East Memorial Dr., Muncie IN 47302. Please indicate the approximate length required to cover the subject; your capabilities with photography and/or artwork as required; and what form the manuscript would take (hard copy, computer disk, fax/modem, etc.).

Payment is based on timeliness of subject, length of article, and amount of work required to prepare it for publication.

The Microhenrys by Ed Henry

JUL 2000





EHenry1044@aol.com

Modeler's Mall

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***Model Flyer* magazine from Wise Owl Worldwide Publications, 1926 S. Pacific Coast Highway, Suite 204, Redondo Beach CA 90277; Tel.: (310) 944-5033; Fax: (310) 944-9963; E-mail: wiseowl@sprintmail.com.**

Model Flyer is a new British magazine, edited by David Boddington. It includes the latest news and product reviews; interviews and technical input from the top fliers and designers; information direct from manufacturers; information on meeting events and club locations; and questions directed to the editorial team.

A one-year subscription (12 issues) costs $62 by surface mail, and can be ordered through Wise Owl at the above address. Subscriptions can be ordered with a check (made payable to Wise Owl Worldwide Publications), Visa®, MasterCard™, or Discover™.

Wise Owl Worldwide Publications has moved to the address shown above.



Brian Taylor Me 109E from Bob Holman Plans, Box 741, San Bernardino CA 92402; Tel.: (909) 885-3959; Fax: (909) 889 9307; E-mail: bhplans@aol.com; Web site: www.angelfire.com/ct/bhplans.

Laser-cut parts are available for the Brian Taylor Me 109E.

Brian is one of England's most-experienced Scale designers, with wins at four UK Nationals. He has also done well many times at the World Championships Scale meets, flying for the British teams.

Photos of Brian's models are very hard to distinguish from photos of the full-scale aircraft; many pictures in the magazines of models built from kits *look* like photos of model aircraft.

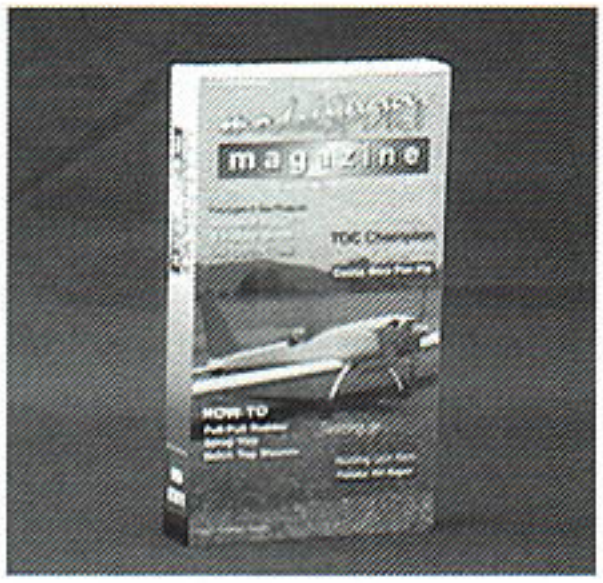
Brian never sells a plan until the model has been built and test-flown; you will never unknowingly build the prototype.

The Me 109E has a 68-inch wingspan, and the plan shows scale flaps and retracts. Power is .60 two-stroke or a 75-90 four-stroke.

Accessories are available, including a detailed fiberglass cowl, canopy, and scale spun-aluminum spinner, which might cost $50 or more, if you could find one the right shape.

Laser-cut parts include most of the parts that need to be cut to shape.

Plans are $40 + $5 S&H, rolled. An accessory package is $85. Laser cut parts are $95. Please add $10 shipping for complete package.



***modelSPORT magazine* from Box 12557, Jacksonville NC 28546; Tel.: (910) 938-3371; Fax: (910) 989-1912; E-mail: jbeech@modelsport.com; Web site: www.modelsport.com.**

modelSPORT magazine enters its third year of production by releasing MS0301 (volume 3, number 1).

modelSPORT magazine is a video-magazine-format television program about the hobby of Radio Control (RC).

Released every other month on VHS videotape, the feature-length issues (two hours long!) are composed of segments covering a wide variety of subjects.

Each issue features a unique assortment of general and technical information about RC modeling. Feature and "how-to" segments cover a diverse range of subjects, including modeling techniques, RC engines, radio programming, tips and tricks, flying and trade events, tools, construction, and new products.

Since childhood, show-and-tell has been the most-enduring tool in the transfer of knowledge and experience; *modelSPORT magazine* updates the paradigm!

A six-issue subscription is $39.99, plus a one-time $5.95 S&H charge. Complete your collection, or build your personal library for $6.99 per issue (plus $2.95 S&H, $.50 each additional tape). Nine issues are available. Savvy modelers will save the S&H if they get theirs from one of more than 200 local hobby shops! Visit the Web page for the dealer nearest you.



Crickit from Mud Duck Aviation, Flying Frog Farm, 5380 Providence Ln., Sumerduck VA 22742 (for info-pack); Tel.: (888) 790-8577.

The Crickit is the newest airplane from Mud Duck Aviation. Unlike the giant 108-inch Mud Duck, the Crickit has a delightfully tiny 34-inch span, for a .15 to .25 glow engine.

With wing and fuselage sides of FomeCor® board, as on the giant Mud Duck, the Crickit assembles quickly and accurately. Laser-cut balsa-and-plywood parts assure accurate assembly.

A complete graphics package showing Spinner (Tom Chipley's cartoon character) at the controls is included. The unique landing-gear design includes two huge wheels and fiberglass axle for straight-line takeoff and landings.

No covering required (just a can of spray-paint) means less time building, and more time flying. This three-channel schoolyard flier is docile and/or aerobatic—depending on your desire and how you wiggle the sticks.

Modeler's Mall

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40 and 80cc gas engines from RC Showcase, 734 Kent Oaks Way, Gaithersburg MD 20878; Tel.: (888) 313-7316 toll-free in US, or (301) 926-6746 outside US; E-mail: sales@rcshowcase.com; Web page: www.rcshowcase.com.

Two new lightweight engines have been added to RC Model Showcase's ZDZ ModelMotor family.

The single-cylinder ZDZ 40 RV-L delivers 4.8 horsepower, and weighs in at 2.9 pounds.

The ZDZ 80 B2 RV-L horizontal twin-cylinder engine puts out 7.8 horsepower, and weighs 4.1 pounds.

The new ZDZ engines achieve this excellent power-to-weight ratio with lightweight Nikasil cylinder technology. Throttle handling is excellent throughout the rpm range, which is owed to the advanced rotary-valve induction system.

These engines are designed and built for Giant Scale.

They are supplied with a microprocessor-controlled auto-advancing ignition system, which operates from 4.8-6.0 volts, allowing direct connection to a lightweight Duralite battery without the need for a regulator.

The ZDZ 40 RV-L costs $450, and the ZDZ 80 B2 RV-L costs $950.

A range of suitable laminated propellers and spinners are available.



DAS System *Primary Flight Training* manual from 1st U.S. R/C Flight School, Box 212, Shawano WI 54166; Tel.: (715) 823-2151.

The 1st U.S. R/C (Radio Control) Flight School has been in existence since 1987. More than 800 people have attended and successfully learned to fly in a *week*.

Throughout this experience, a system of RC flight instruction has been developed along the lines that the best solutions are often the simple ones.

Good habits are the same whether learning to fly, or flying advanced aircraft; good pilots fly with the same repetitive techniques, and proficient fliers fly with ease because of where they place their priorities!

Those priorities have been assembled into a 112-page manual—the DAS system of *Primary Flight Training*.

The DAS System brings to the forefront the central solo techniques that good fliers use.

The 1st U.S. R/C Flight School runs its concentrated hands-on flight-training courses May-October, with each three-student class held Monday-Friday.

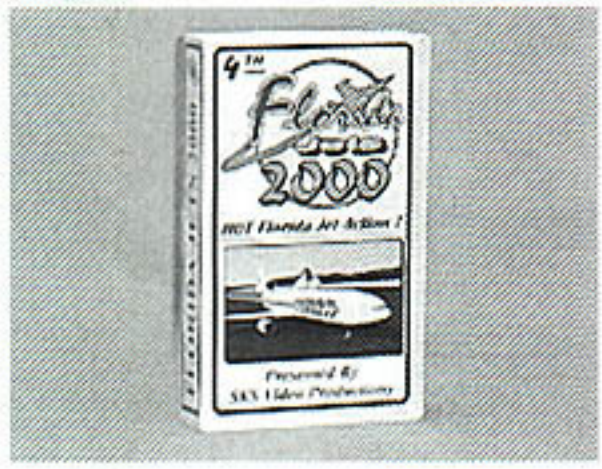
Buddy-system instruction and all equipment needed throughout the week is provided for a $549 tuition.

Primary flight training through solo is common, but Aerobatic training is becoming more-popular as a growing number of students return for further instruction.

Lessons are structured and presented each day, based on what has proven to work best when learning to fly—not on theory—meeting the goals of each person attending. These goals include good habits, avoidance of mishaps, long-term time and money savings, and solo independence!

The manual sells for $29.95 postage-paid in the US. MasterCard™ and Visa® are accepted.

Call for more information, or send $3 for a complete information package.



***Florida Jets 2000* @ $24.95 + $3.25 S&H from SKS Video Productions, R.D.#1 Box 264 Pine Rd., Abbottstown PA 17301; Tel.: (800) 988-6400 in US or (717) 259-7193; Fax: (717) 259-6379; E-mail: scott@sksvideo; Web site: www.sksvideo.com.**

This year's Florida Jets attracted some of the most-unusual aircraft, such as Gustavo Campana's X-29, Norm Redenshek's T2J Buckeye, Erich Himmler's Venom, Pat DeFilippi's F-104, Bill Steffes' Panther, and Dean Wichmann's Eagle Bandit.

Get a firsthand look at some of the latest products, such as the new Hammer P120 turbine, Mini Hobbies' new autospeed, and the new Aviation Design's F-16, and ride along in Captain Eddie's twin-turbine-powered DC-10 with our onboard camera.

Run time is 90 minutes.

Dave's Custom Models (10205 Spring Cir., Austin TX 78736; Tel.: [512] 288-2055) has decided to cease manufacture of all its products, and has sold all its molds, fixtures, and related parts to a firm in California called Air Magic.

Dave's Custom Models has enjoyed the past 12 years of manufacturing high-quality kits, and was the first to introduce the ⅕-scale Epoxy/fiberglass fuselage and foam cores of the Hawker Sea Fury and the Hawker Typhoon—excellent-flying warbirds.

Air Magic produces high-quality jet aircraft kits, and Dave's Custom Models hopes it enjoys the same popularity with its new adventure into big-propeller warbirds.

Air Magic Models can be contacted at 3325 Reginal Parkway #3, Santa Rosa CA 95403; Tel.: (707) 542-5721.

Modeler's Mall

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Epoxy/fiberglass fuselage and laser-cut wing and tail ribs for Brian Taylor P-51D from Bob Holman Plans, Box 741, San Bernardino CA 92402; Tel.: (909) 885-3959; Fax: (909) 889-9307; E-mail: bhplans@aol.com; Web site: www.angelfire.com/ct/bhplans.

The fuselage and wing and tail ribs are now available for the Brian Taylor P-51D plan.

The Brian Taylor P-51D is one of the most Scale P-51s available. Like all Taylor plans, these show all-built-up construction, with no foam. Fiberglass cowls have surface detail—plastic cowls are never used. Scale-size aluminum spinners are also available.

The Epoxy/fiberglass fuselage saves the time of building the fuselage up. This fuselage is made from a high-quality metal surface mold.

The P-51D semi-kit includes Taylor plans, fiberglass cowl, fiberglass belly scoop, canopy, drop tanks, spinner, and laser-cut wing and tail ribs. The wingspan is 69 inches, and power is .90-1.08.

The semi-kit is priced at $220 + $25 UPS shipping. This model is for the experienced builder; no construction details are shown for the glass fuselage.



1937 Kellett YG-1B autogiro kit from Autogyro Company of Arizona, Tel.: (888) 783-0101 (toll-free orders); (623) 582-9428 (free brochure, information, and tech support); Web site: www.autogyro-rc.com.

The smooth lines and nostalgic look of this new ⅕-scale Sport Scale 1930s-era Kellett autogiro kit are certain to attract Scale and autogiro enthusiasts, taking us back in time to the "golden age" of the autogiro.

This is the fourth autogiro kit to be released by the Autogyro Company of Arizona, and it is by far the *largest model autogiro kit ever produced!*

The rotor disk spans 74 inches, spawning an enormous 4,300 square inches of disk area and producing a very light disk loading of less than 4.5 oz./sq. ft.!

Designed for .61 two-stroke or 91 four-stroke engines and simple four-channel operation, this *laser-cut* kit is remarkably simple to construct; no machining is required, and no fancy mixing or computer radios are needed. All simple rotor head parts are included; blades are airfoil-shaped and laser-cut.

Standard and Deluxe kits are offered.

Characteristic short-field operations and no-ground-run landings are the norm with only a few mph of headwind. Cruise flight is remarkably slow and scalelike; the huge blades chomping great bites out of the air as this Kellett whirls overhead generates a wonderfully exciting, unique swooshing sound produced only by big autogiro models!

For Scale builders looking for a novice subject, this kit is easily finished, replicating any of the many Kellett KD-1A, KD-1B, and YG-1B (military) models from 1935 to 1939 (documentation available).

For Sunday fliers, this kit will be a large and attractive model, with lots of "presence" in the air at your local flying site.



Plans for Sikorsky S-38 Carnauba and S-39 from Classic Aero, 1782 Laverne Ct., Oxford MI 48371; E-mail: Mrock@mich.com.

Allen Mrock, owner of Classic Aero, has released the plans for both airplanes, which won first place in their events at the WRAM (Westchester Radio Aero Modelers) show in February 2000.

The plans are offered in three scales, and the models are based on full-scale replicas. Both sets of plans are highly detailed, showing rivets, rib stitching, cockpit, and cabin interior.

The ⅛-scale S-38 has been converted from two Saito engines to the 3-W24 gasoline engines, and it weighs 42 pounds. The engines fit nicely in the engine nacelle.

The new ⅛-scale S-39 uses an OS 160 twin or a Saito 150 mounted sideways, and weighs 17 pounds.

Full color and photo-pack documentation is available from Classic Aero.

Accessories are available for the ⅛- and 1/12-scale S-38 and the ⅛-scale S-39 only at this time. Write or E-mail for more information.



Documentation Picture Packs from Rhinebeck Aerodrome Museum, Box 229, Rhinebeck NY 12572; Tel.: (914) 752-3200; Fax: (914) 758-6481; Web site: www.oldrhinebeck.org.

The Sopwith Camel is the first subject in a series of aircraft "Picture Packs" from Rhinebeck's internationally-known collection.

Each Picture Pack includes 20-24 4 x 6 color photographs of the subject, including front, side, rear, and all quarter views.

A variety of close-up pictures, including strut and cable fittings, landing gear, details, hinging, tail surfaces, cockpit details, and more are included to meet the needs of most modelers and early aviation enthusiasts.

The prints are provided in a compact photo album.

When available, paint descriptions and sources of additional documentation (including three-views and written information) are provided.

Coming soon will be Photo Packs for the Fokker Dr.I, Fokker, D.VIII, Nieuport XI, Albatros D.Va; many others will follow.

Price per Picture Pack is $20 + $4 S&H. Please include applicable sales tax. All shipping rates are for deliveries in the continental US. Contact Rhinebeck Aerodrome Museum for rates to other areas. Visa®, MasterCard™, and Discover® are accepted.

For further information on the Picture Packs, other gift-shop items, and Museum memberships, contact the Rhinebeck Aerodrome Museum.

Modeler's Mall

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Plans for Piper J4-E Cub Coupe from Reid's Quality Model Products, 30 Clifton St., Phelps NY 14532; Tel.: (315) 548-3779; Web site: www.REIDSMODELS.com.

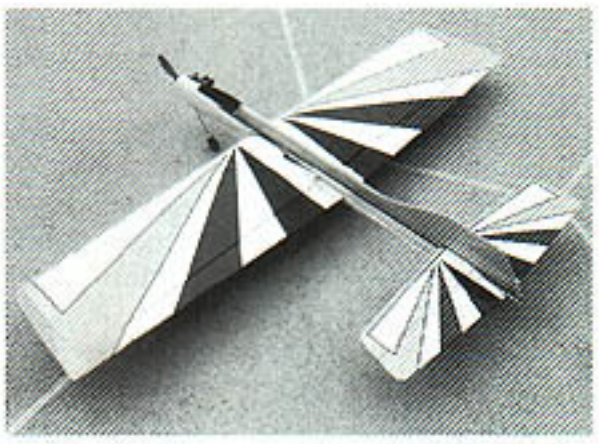
The ⅓-scale 1941 J4-E has accurate Scale outlines. Designed by Giant Scale pioneer Jim Messer, the Cub Coupe features a three-piece wing with scale airfoil.

As with most Piper aircraft, the J4-E is a stable-flying airplane capable of mild aerobatics.

The Cub Coupe features full-length aluminum tube spars for strength and ease of construction. The airplane is mostly wood construction, with an available fiberglass cowl and wheel pants. Bob Shattlerow has made the metal landing gear available.

This 144-inch beauty has almost 3,000 square inches of wing area, it flies very well on 4.5-6 horsepower, and has a flying weight of 28-32 pounds.

Reid's Quality Model Products will offer a semikit in the near future; write for prices. Plans are shipped rolled. There are 99 square feet of drawings for $40 plus $6.75 S&H. Items may be ordered directly from Reid's.



½A Pathfinder from Brodak Manufacturing and Distributing Company Inc., 100 Park Ave., Carmichaels PA 15320.

The ½A Pathfinder competition Stunt design features durable construction, detailed engineering, and top-quality materials.

What sets the ½A Pathfinder apart from other airplanes is its design. This model is made to use shorter leadout cables and is engineered for tighter turns, making it much more maneuverable.

Because the Pathfinder flies with a tighter circumference and responds so quickly, you can fly it in a smaller area, turn faster, and do tighter stunts.

The ½A Pathfinder features a wingspan of 35 inches, a wing area of 236 square inches, and an overall length of 27 inches. It can be flown with engine sizes .049-.070, depending on personal flying preference.

The ½A Pathfinder includes detailed full-size plans, and complete, fully-illustrated instructions that include building tips.

Featured in the kit are a one-piece preshaped fuselage, die-cut plywood parts, and die-cut ribs and tail surfaces. Like all Brodak kits, the ½A Pathfinder features select AAA balsa.

Included in the kit are a formed-wire landing gear, a Brodak heavy-duty bellcrank, leadout cable and guides, a full hardware kit containing a nylon control horn, leadout cables, and an adjustable weight box

The kit contains a complete set of fuelproof decals, a pushrod split-sleeve coupler, 4-40 x 1 mounting bolts, and more!

Also included are Control Line flying instructions for enthusiasts who are just getting started.

The ½A Pathfinder is available through hobby shops.



Expanded Scale Voltmeter MKII @ $19.99 from Great Planes Model Distributors, 2904 Research Rd., Champaign IL 61826-9021; Tel.: (217) 398-6300; Fax: (217) 398-0008.

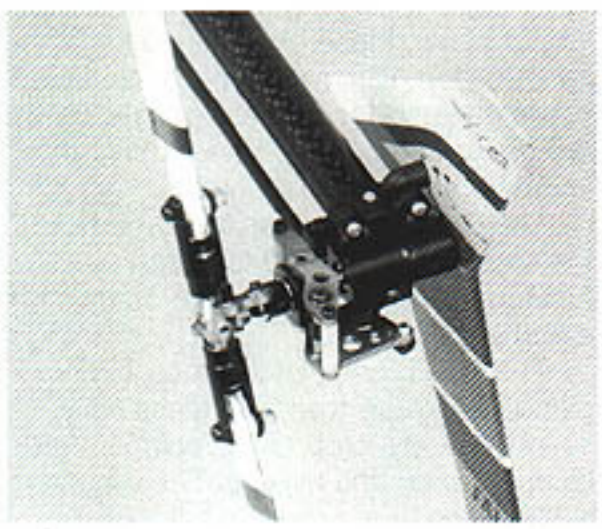
Hobbico®'s new Expanded Scale Voltmeter MKII is 25% smaller than industry-standard ESVs, and it weighs less, so it's easy to carry and comfortable to use.

The Voltmeter offers greater versatility, measuring 4.8V and 6.0V receiver batteries, and 9.6V transmitter packs.

The Expanded Scale Voltmeter MKII measures a compact 2⅞ x 3¾ x 1¼ inches, to fit easily into any flier's pocket or field box.

Its improved meter includes a mirrored area that ensures a proper viewing angle, as well as red and green zones to indicate safe and unsafe voltage levels. The meter shows four-, five-, and eight-cell scales, with dual descriptors for each. For maximum accuracy, the unit simulates a very realistic 225-275mAh load when testing batteries.

Hobbico® backs the Expanded Scale Voltmeter MKII with warranty protection for one year.



Aluminum Tail-Blade Grips and CNC Aluminum Tail Rotor Gearbox from Miniature Aircraft USA, 3743 Silver Star Rd., Orlando FL 32808; Tel.: (407) 292-4267; Fax: (407) 292-4296; Web site: www.x-cellhelicopters.com.

CNC (computer numeric code) Aluminum Tail-Blade Grips, #0860, are a direct replacement for #0873 or #0453 plastic grips. Weight is 20% less than #0873. Fits all X-Cell helicopters. Special hardened long-shank pivot bolts are included. The grips are sold in pairs.

CNC Aluminum Tail Rotor Gearbox, #0861, is a direct replacement for "99" Spec. 1004 SE, 1006 Pro II, or any X-Cell equipped with #0859 Pro-pitch slider kit. Net weight gain of 1.7 grams over original parts (Total net weight of #0860 and #0861 is *equal* to original parts replaced).

Unique design affords easy setup and service. Kit includes all hardware required to adapt #0859, and an improved output shaft. (Order #0861-1 if you do not already have #0859 and want the entire assembly.)

Executive Council Meeting Highlights

Motions made at the April 1, 2000 Executive Council Meeting in Muncie IN

The motions below are part of the unofficial minutes of the meeting. Minutes from a given meeting are not official until they are approved at the next quarterly Council meeting. Questions or comments on the motions should be addressed to your District Vice President.

Minutes of the January 17, 2000 Executive Council meeting were approved.



MOTION I: Moved by S. Frank (VIII), seconded by B. Oberdieck (VII), To make the membership survey findings available to the membership.
The MOTION passed unanimously.



MOTION II: Moved by J. McNeill (V), seconded by W. DeCou (II), To accept the Safety Committee report on SAFETY REGULATIONS FOR MODEL AIRCRAFT GAS TURBINE ENGINES. (see the AMA web site for complete report www.modelaircraft.org)
The MOTION passed. 12 yes; 1 no (IX).



MOTION III: Moved by R. Miller (IX), seconded by J. McNeill (V), To accept the committee's recommendation of Gooden & Ellis as architects for the museum exterior renovations.
The MOTION passed. 12 yes; 1 no (I).



MOTION IV: Moved by C. Bauer (VI), seconded by C. Foreman (IV), To accept the recommendations of the committee for the changes to the rule book, items number 1-3 of January 6, 2000 report as presented, with changes.
The MOTION passed. 12 yes; 1 no (V). (That Contest Directors will be renamed to Event Directors. Remove the language used to describe the number and type of awards required for "A" rated events.)



MOTION V: Moved by C. Foreman (IV), seconded by R. Miller (IX), The chairman of the nominating committee will verify that all nomination letters, candidate acceptance statements and candidate resumes have been received and verified by AMA Headquarters prior to convening of the nominations committee meeting.

If any of the candidate nominations letters, candidate acceptance statements or candidate resumes are missing the committee chairman will contact the candidate and give notice as to what documents are missing and required for the election process.

It will be the responsibility of the candidate notified to provide the committee with any documents that are missing and requested prior to the published date of the nominations committee meeting.

This notification will be done at least 15 (fifteen) days prior to the convening of the nominations committee meeting.
The MOTION passed unanimously.

Grand Event 2000 and AMA Homecoming

The Academy of Model Aeronautics will host the fourth-annual Grand Event June 10-11, at the International Aeromodeling Center in Muncie IN. The event will run simultaneously with AMA Homecoming, as it has for the past three years.

Grand Event/Homecoming hours of operation will be 9 a.m. to 5 p.m. Saturday, and 10 a.m. to 3 p.m. on Sunday.

Developed to introduce people of all ages to the excitement, benefits, and value of hobby modeling, the Grand Event is free and open to the public.

Saturday's events will include make/fly/take model airplanes, kites, and rockets, and Radio Control car activity. On Sunday, organized demonstrations, seminars, and related activities will be offered.

Many representatives and exhibits from the model-hobby industry will be in attendance, and a food court will be located close to most major activities.

AMA members are welcome to participate in Homecoming *and* Grand Event festivities.

An AMA membership meeting will be held Saturday afternoon, to be followed by a member-appreciation dinner. Grand Event sponsors, exhibitors, and volunteers are also invited.

For more information, contact Mary Lou Vojslavek at (765) 287-1256, ext. 201, or via E-mail: mvojslav@modelaircraft.org.



Focus on Education

Gordon Schimmel
AMA Education
Committee Member

"ISN'T IT astonishing that all these secrets have been preserved for so many years just so that we could discover them?"

Orville Wright

American folklore is rich with Horatio Alger stories of success, usually featuring a young hero or heroine struggling against overwhelming odds to achieve success.

The story of Wilbur and Orville Wright is no exception. Many people tend to regard them simply as clever bicycle mechanics who, through hard work and a little luck, unlocked the secret of flight.

However, the story is far more complex; it's a rich chronicle of how two men, endowed with creativity, self-discipline, and great determination, overcame enormous odds to invent a machine capable of controlled, powered, heavier-than-air flight.

From the days of Leonardo da Vinci, experimental work on flying machines made uneven progress. Much has been made of da Vinci's interest in flight, and his writings and illustrations are testimony to his extraordinary curiosity and his creative mechanical genius.

However, his work on flight focused largely on various flapping machines (ornithopters), powered by human pilots who had neither the strength nor methods of control to sustain human flight. Centuries would pass before an interest in soaring—as opposed to flapping wings—would emerge.

After reading a great number of works on the subject, the Wrights were first to understand that successful human flight depended on several factors: control, sufficient lift, enough power to overcome drag, and the development of lightweight but strong materials. They understood that flapping wings were impractical, so they focused their efforts on creating wings that could glide efficiently.

After all, if birds could soar and glide, why would it not be possible for humans to do the same thing?

To help educate young people about the work of the Wright brothers, the Academy of Model Aeronautics has joined with Inventing Flight, a Dayton, Ohio-based event, to celebrate the centennial of flight in 2003.

The project began last summer when a team of middle- and high-school science teachers met to create a guide featuring "hands-on" activities in science, math, language arts, and history. The guide is designed to be useful to classroom teachers, but it will also be a useful tool for community leaders (for Scouts, church, and 4-H groups), as well as science and flight museum educators who want to provide engaging activities for visitors.

Of course, the hands-on activities featured in the guide are based on model aircraft! Several rubber-powered Free Flight models are represented and, as part of a curriculum slated for national distribution, it is possible that new interest in modeling will result from the exposure the celebration will be receiving in 2003.

Few realize the importance of models in the Wrights' development of the first powered, controllable, human-carrying flying machine.

The Wrights were excellent craftsmen, capable of fabricating almost anything. The boys' father brought home a helicopter toy that they rescaled and built several times to learn more about how it flew. Both boys were known for their kite-building abilities—a skill that would later be useful in testing their early ideas to control an aircraft.

The Wrights' craftsmanship and skill with modeling played an important role in their development of the airplane. Their first flying machine was a model, a kite that we would know today as a "quad," flown on four lines attached to handles, not unlike those used by Control Line pilots.

The kite was a biplane, trussed in a way that permitted twisting the airfoils in opposite directions, testing their ideas for warping wings to control the rolling axis of their aircraft. Their discovery was unique, and it was the first of many they made to resolve problems of control and stability that had plagued experimenters for centuries.

The Wrights' skill in the workshop was to serve them in other ways as their development of flyable gliders continued. Their work as bicycle builders, mechanics, and designers led to their ability to create lightweight but strong gliders.

When they discovered that the most-commonly-accepted tables of lift were incorrect, they built their own wind tunnel to test more than two hundred airfoils, determining the most-efficient shape and camber to carry their weight with the power available to them. These scale model wings were made of steel and tested on an intricate device of their own design.

The work was useful later when they tackled the problems of efficient propeller design, yet another breakthrough over previous work by others. They were the first to understand that a propeller was actually a rotating wing; prior to their work, most experimenters equipped their machines with little more than giant rotating paddles.

In typical fashion, the Wrights carefully derived accurate tables of thrust, based on their wind-tunnel work with wings, and produced a long, sleek design that was far more efficient than anything previously used by others.

Although the Wright brothers were not formally-trained scientists, hard work, careful research, and a vision of what was possible made it viable for them to create a successful aircraft where so many others before had failed.

Their story is a classic in the tradition of Horatio Alger—one that students of all ages can enjoy and celebrate as a triumph of human achievement.

The Academy, in collaboration with the Inventing Flight/2003 Committee is happy to be part of helping bring this story to tens of thousands of young people who, like the Wrights, will learn much about aeronautics and a little about themselves in the process.

As Orville once wrote, "I can remember when Wilbur and I could hardly wait for morning to come to get at something that interested us. That's happiness!"

Modelers of all ages can appreciate that kind of excitement and we hope the project with Inventing Flight will enable us to share it with a new generation of builders and fliers.

Mission Statement

The Academy of Model Aeronautics is a world-class association of modelers organized for the purpose of promotion, development, education, and advancement of modeling activities.

The Academy provides leadership, organization, competition, communication, protection, representation, recognition, education, and scientific/technical development to its members.

Vision Statement

We, the members of the Academy of Model Aeronautics, are the pathway to the future of aeromodeling and are committed to making modeling the foremost sport/hobby in the world.

This vision is accomplished through
- Partnerships with its valued associates, the modeling industry, and governments;
- A process of continuous improvement;
- A commitment to leadership, quality, education, and scientific/technical development; and
- A safe, enjoyable modeling environment.

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Finding—Preserving—Maintaining

IT CAN be done! Perseverence is the name of the game. I call your attention to page 50, outlining how a partnership between the SLO Flyers, Inc. and Cal Poly State University in San Luis Obispo CA succeeded in constructing what may well be one of the best model flight facilities in California.

Food for Thought: The following E-mail came to me from Roland Woodworth, president of the Kennebec Valley Model Aviators in Sidney ME:

"In reading your latest article in *Model Aviation,* I had to send this about our search for a flying site.

"It is true that landfill sites often make the best flying sites around the country. Heaven knows how many articles I have read about AMA clubs having their field on one of these sites!

"However, this is not always the case. Last year we came across a particular site but many phone calls went unanswered, so we decided as a club not to go after this site. A year later, the new landowner called us and said he was very interested in having us there!

"As you can imagine, we were very excited about this. Arrangements were made and the landowner, a few of our members, and the club officers met. The landowner then gave us a tour of his land and the potential site(s).

"After much discussion, among ourselves and with the landowner, we decided on the piece of land that happened to be a landfill. Without any money exchanging hands, but with the landowner's permission, we mowed a section of the landfill. We even rented a self-contained roller and rolled the field. We set up a date so that the entire club could come to try out this site.

"During this time, the local paper broke a story about seven cases of brain cancer diagnosed a few miles away from the landfill. This made some of our members very uneasy and they decided that they would not come to this site at all. I respected their views and left it at that.

"There were at least three articles in the paper about this site, saying that part of it was legal and part of it was illegal. It was also discovered that many very dangerous items had been dumped in the site.

"The state came in and took soil samples and needless to say, what they found wasn't very good. The club decided to abandon this site until we know what the state plans to do.

"One last item makes this even sadder. The neighbor beside us was very disappointed that we were not going to stay there. He said that he was very interested in RC airplanes and that he would have liked to learned how to fly.

"What I am trying to say is, be sure what is in the landfill before you try to secure the use of it!

"Thank you for your time."

This letter was received from George Lewis, Flying Site Assistance Volunteer of China Township MI:

"Walt Engelbrecht, a longtime member of the Cloudbusters Model Club was home on disability leave when he decided to do some exploring regarding obtaining a flying field.

"The club had been flying out of a park when somebody put a .60-powered radio ship *into* the side of a house! That was 15 years ago and we really hadn't had a place to call our own since.

"The Cloudbusters are principally an Outdoor Free Flight club with a little U-Control and a little Indoor flying done whenever possible. A great deal of Outdoor activity has been Flying Aces Club flying and that was done in a park in Flint MI, about 85 miles away.

"Walt found out that the Detroit Radio Control Club had abandoned a field about two years ago and moved about 500 yards to the north. A stand of woods separates the two fields. The abandoned field is about 165 acres with *no* trees, just tall grass and weeds.

The first thing Walt did was determine who owned the field and/or who had rights to it. Nobody knew! The RC guys sort of gave him the impression that they had some proprietary rights but couldn't really be definite about this.

"Walt finally found out that it was state land so he began making calls to the state Capitol offices in Lansing MI. His many calls went from office to office because nobody really knew *who* had responsibility or jurisdiction over the land.

"During this time, Walt received a call from the president of the Detroit RC Club and was told that the land came under the jurisdiction of the State Park and Recreation Activity that had their field office in Harrison Township, just a few miles away from Walt's house. Walt made a phone call, set up a meeting time, and found himself sitting across the desk from the Parks and Recreation officer who said "yes" he had the authority and jurisdiction.

"Walt told the officer he wanted to fly rubber-powered Free Flight, no engines, gliders and electric, no Radio Control. It turns out that the land lies within an undeveloped state park and there are no plans for it at the present so the club was issued a permit with no time period attached to it.

"A club sign is planned along with some mowing. We have met with the RC fliers and they have been most gracious and welcoming, even to the point of saying we were welcome to use their *two* U-Control circles anytime since they only have three members who fly U-Control. We have joined a Park Group that meets regularly regarding proper use of the park and maintenance. The RC club belongs to this group also.

"Walt has recovered from his disability and gone back to work, but what a job he did for the Cloudbusters! By the way, Walt was nominated to receive one of our three perpetual awards, The Bill Adams Trophy, which is for the member who has made the greatest contribution to the club during the year. The voting was unanimous!"



Photo of Walt Engelbrecht.

The Aeromodelismo Costa Rica Model Club flying site is located in the suburbs of San Jose. The photo below shows the paved 360-foot x 33-foot runway. A most impressive facility.



Above is Julio P. Pastora who spearheaded his 18th Tropical Fly-In on March 20, 2000. Nine-year-old Julio Jr. stands with Dad flying his .40-powered model.

I had the opportunity to visit and fly there with Central- and South-American modelers. They are a great group to not only fly with, but also to socialize with.

I encourage you to attend the 19th Annual Fly-In, scheduled in March 2001. E-mail Julio at pastora@hotmail.com or call him at (506) 232-3148.

Executive VP's Report

Doug Holland
AMA Executive VP

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FOR THOSE of you who enjoy reading the audit report, you will enjoy this column. For those who do not like the numbers, skip to the last paragraph.

As you can see from the schedule of our National Championships presented below, there was a substantial increase in revenue over the prior year, indicating more people entered. There was a reduction in total expenses, indicating a real benefit in using the Muncie site.

As things become more organized, we are able to reduce the expenses of the event, which means better efficiency in operations. The site rental is primarily for the Indoor fliers. You are probably aware that we rent the facility in Tennessee where that element of the Nationals takes place.

If, after reading this, you have any questions, I will be happy to discuss them with you.

THE ACADEMY OF MODEL AERONAUTICS, INC.

SCHEDULES OF NATIONAL CHAMPIONSHIP CONTEST REVENUE AND EXPENSES

YEARS ENDED DECEMBER 31, 1999 AND 1998

	1999		1998	
	Amount	Percent	Amount	Percent
REVENUE				
Entry fees	$ 44,399	86.1	$ 20,388	72.1
Trophy sponsorships	-	-	1,400	5.0
Souvenir sales - net	7,163	13.9	6,484	22.9
	51,562	100.0	28,272	100.0
EXPENSES				
Planning meeting	221	.4	2,371	8.4
Officials - fees, travel, lodging and uniforms	6,463	12.5	2,617	9.3
Staff expenses	71	.1	1,105	3.9
Trophies	11,183	21.7	11,358	40.2
Cars, trucks and trailers	918	1.8	380	1.3
Equipment rental and other	1,965	3.8	1,360	4.8
Contestant supplies	-	-	182	.6
Site rental	7,669	14.9	6,118	21.6
Telephone	-	-	54	.1
Miscellaneous	3,462	6.7	6,847	24.4
	31,952	61.9	32,392	114.6
EXCESS (DEFICIENCY) OF REVENUE OVER EXPENSES	$ 19,610	38.1	$ (4,120)	(14.6)

A Sunday school teacher was taking her little sixth grade girls' class from the Sunday school department into "big church."

Wanting to emphasize the fact that the children should remain as quiet as possible, she turned to the group and said, "Do any of you know why we are supposed to be quiet in 'big church?'"

One bright girl raised her hand and said, "Yes, teacher, I know. It is because there are people sleeping in there."

Until later...

District I Report

Connecticut / Maine /
Massachusetts /
New Hampshire /
Rhode Island / Vermont



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LEADER CLUBS: As of March 3, 2000, only one club in District I has the distinction of being a Gold Leader Club. That club is the 107 R/C Flyers, located north of Boston. Nice job fellows.

IMAA Fly-In at Westover: This event was held last September and Joan Liska sent the following pictures and article. They are appreciated. My apologies for not showing them sooner, however, they will serve as a preview for this year.

I have heard that Westover is no longer available to the modelers, so a new location will probably have to be found. Here is Joan's article:

"IMAA event sponsored by Central Connecticut Giant Squadron (Chapter 392) at Westover Air Force Base, Chicopee MA on Labor Day weekend was well-attended. This fly-in is the largest such event in New England with 63 fliers and more than 100 airplanes from New England, New York, and New Jersey. The District I mini-fest lucked out with a brilliant sunny weekend and a mild breeze for most of the weekend.

"The flightline was busy all day Saturday. Thanks to a terrific crew at the impound and a seasoned flightline boss, Larry Gagnon, assisted by co-event director Dick Wilkins, the waiting line was short. Sunday there was no waiting for a place on the flightline, though the breeze was a bit stronger that day.

"A noon show Saturday treated the crowd to a demonstration flight by a turbine-powered F-16 and an impressive aerobatic performance by Steve Swahn with his Carden G-202 (42% scale) sporting Desert Aircraft's new twin 150cc engine. The airplanes ranged from sport planes to warbirds to Scale aerobatic planes. There were twin engines and turbine engines, gas and glow engines. There was a variety for everyone who is a Giant Bird enthusiast.

"The consensus again was that the event was a rousing success because everyone enjoyed themselves at this noncompetitive gathering of Big Bird fliers.

"That is what is so great about an IMAA meet. The whole purpose is to gather and admire each other's handiwork in building a remarkable Giant Scale airplane, to compare notes with other skilled builders and fliers, and be awed and entertained by the sight of some fine-looking birds taking to the skies."

Joan is the president of Chapter 392. I believe the turbine demonstration was flown by Ray Davis of the Otis Model Airplane Club.



Larry Gagnon, Wethersfield CT was the Event Director. The DC-3 is from Ziroli plans, American Kit Cutters, plus scratch-built wings. Powered by two G-38s with Mejzlik 16 x 11, three-blade props, McDaniels lighting system, and Robart Retracts. It all adds up to 40 pounds.



Allen Willette, Sufield CT, with his Ultrasport 1000. A Great Planes kit with a SuperTigre 2500 with tuned pipe and header, it has 136 stars and 27 stripes, an Airtronics radio, and weighs 13.5 pounds.



Mitch Epstein, Leominster MA, and his Stearman 1/3-scale Balsa USA kit.



Jim Russell, Oxford MA, and his Spitfire from Yellow Aircraft. It has an 88-inch wingspan with an O.S.-3500, Dynathrust 18 x 10 prop, and weighs 25 pounds.



Dan Fish, from Hopedale MA, and his Staudacher (Aerocraft) with a 90-inch wingspan with a Brison 4.8 and TME smoke system.



Mike LaPierre, Wallingford CT, with his Laser 200, Quadra 750, Mejzlik 24 x 10 prop, and JR 8103 radio, weighs 23 pounds.

District II Report

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I COVERED the WRAM Show last month, but space constraints didn't allow me to include this information, provided to me by Hank Nielsen, the club's public relations person, concerning a great model aviation exhibit at the Westchester County airport. Hank writes:

"White Plains NY—One of the leading airports in the New York Metropolitan area, Westchester County Airport, with its more than a million passengers annually, now features a display of the educational and recreational aspects of model aviation.

"Located next to the observation deck of the busy airport, the display features a large ceiling-suspended model of a radio-controlled trainer airplane.

"Included is a wall case showing the range of model airplanes from hand-launched gliders to the most advanced aerobatic aircraft, piloted by enthusiasts from a three-year-old girl to seniors.

"A section is devoted to the Wright Brothers, Wilbur and Orville, modelers who were encouraged in their early years by their nontechnical churchman father with a gift of a toy propeller on a stick.

"The display, with color photographs, diagrams, and a model of the Wrights' toy, was mounted by the Hat in the Ring Youth Aviation Program, a program developed in White Plains by the Westchester Radio Aero Modelers, Inc., a not-for-profit organization.

"The display recounts the educational and other benefits of the model hobby and flying sport for people of all ages and describes a Web site, www.wram.org, where more information is available.

"The now international program, begun in 1966, has attracted the support of such eminent people as Brigadier General Chuck Yeager, USAF Ret., the first man to break the sound barrier. Included on the Web site are free plans for a basic airplane model that can be built in 12 configurations and power types.

"The plans have reached model builders around the world, including China, and have been translated to German by a European source requesting permission from the program.

"The youth program is aimed primarily at encouraging adults to offer the means and opportunity for boys and girls to enter the hobby and sport of aviation and other modeling. It derives its name from and was authorized by the 'Hat in the Ring' squadron first made famous by Eddie Rickenbacker, the leading American ace of WW I, and others.

"The squadron remains active today as the 94th Fighter Squadron, flying Mach-busting F-15 Eagles instead of 100 mph SPAD and Nieuport biplanes.

"The display was established with the support of County Executive Andrew J. Spano, and officials of the county's Transportation Department, and Westchester County Airport. The Hat in the Ring program is encouraging modelers and other city airports nationally to follow its lead in promoting the educational and recreational virtues of the hobby for people of every age."

Thanks, Hank!

Academy of Model Aeronautics
National Model Aviation Museum

Museum Donations

The National Model Aviation Museum and Lee Renaud Memorial Library are constantly striving to improve their collections in order to further document and display the history and evolution of aeromodeling. We encourage and actively solicit the donation of archival materials, books, magazines, and artifacts that depict the history and ongoing development of aeromodeling.

If you wish to make a donation, please contact the Museum or Library Staff prior to delivering or mailing the items. Items such as aircraft and prepared displays must be reviewed for acceptance by the Museum Acquisition Committee. The committee requires the following material:

1) Photograph(s) (may be snapshots) of the item.
2) Written statistics: dimensions, material, age, builder, or any other relevant data.
3) Written statement explaining the item's historical significance and how it meets the purpose and mission of the National Model Aviation Museum: to collect, preserve, and exhibit the historic, scientific, technical, and artistic legacy of model aviation.

Donated items are accepted unconditionally and become the sole property of the National Model Aviation Museum. Acceptance does not necessarily imply that the items will be permanently displayed.

District III Report

Ohio / Pennsylvania / West Virginia



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IF YOU have been reading this column for the past months, you know that we are emphasizing the AMA Leader Club program. Why? The success and longevity of your club might focus on the efforts generated within the program.

This month, several additional clubs have met the Leader Club criteria. They are:

Gold Leader Clubs
The Johnstown R/C Club, Johnstown PA
Keystone R/C Club, Inc.,
Perkiomenville PA
S.P.A.R.K.S., Pittsburgh PA
Tuscarora R/C Club, Tamaqua PA

Silver Leader Club
Western Ohio Radio Kontrol Society, Huber Heights OH

Congratulations to these fine clubs. If your club is not on the list, get to work!

Late last year, we asked for pictures that might be included in the new District Display Board. Will Hubin, editor of the North Coast Controliners newsletter, provided some great photos highlighting Control Line activities.

The Cleveland-based club has a glorious history that dates from the early 1930s. Today the club has 36 members. Several of those members actively compete in Navy Carrier, Speed, Foxberg Racing, and Precision Aerobatics. The club currently flies at the Cuyahoga Community College and the Berea Fairgrounds.

If your interests are Control Line, why not contact Will Hubin at 719 Cuyahoga Street, Kent, Ohio 44240.

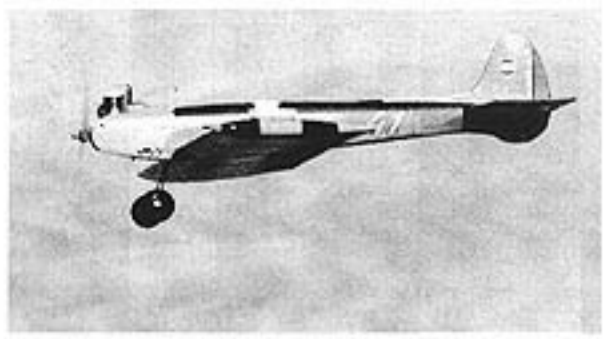
Here are some of Will's great photos.



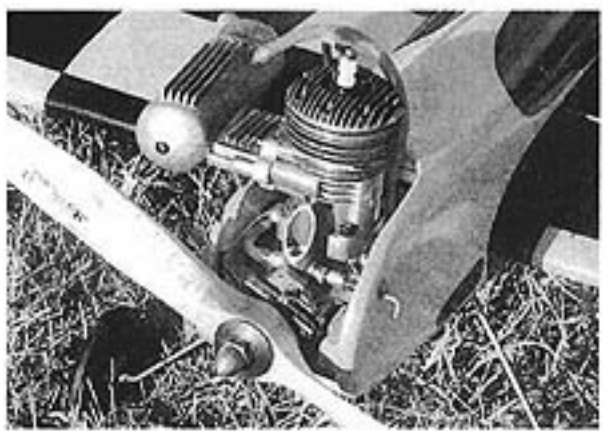
North Coast Controliner Mike Alimov and his Tucker Special.



Master builder/OTS flier Les Nering and his Jamison Special.

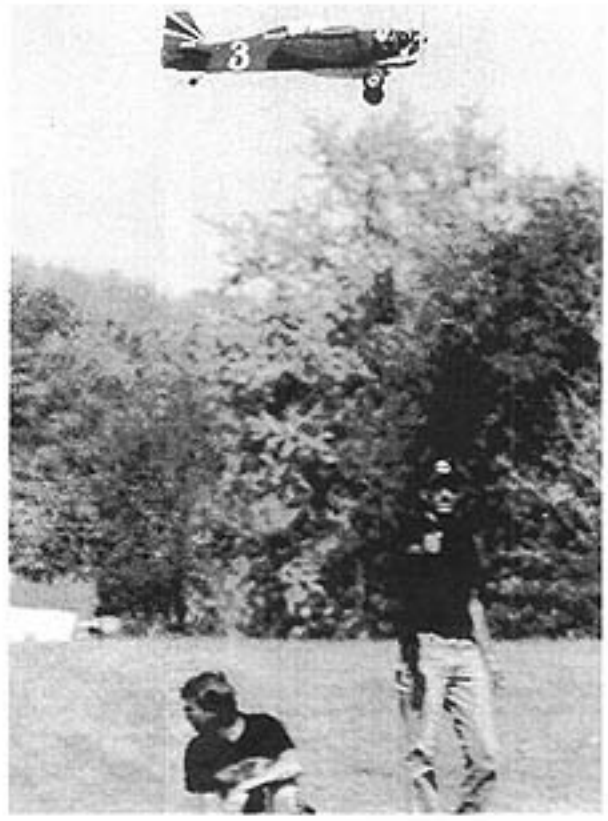


NCCL Les Nering's Taurus in flight. The aircraft is powered by an Anderson Spitfire ignition engine (below).





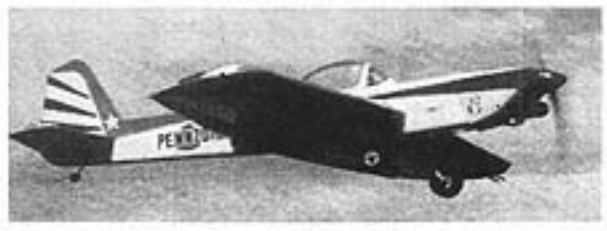
NCCL Foxberg racers at Brodak '99: Dean Mitchell, Paul and Ron Lutz.



Bill Capinjola (kneeling) and Paul Lutz in a Foxberg race.



NCCL Walt Elbrecht helps his son and friend learn to fly Control Line.



NCCL Dave Heinzman flies his Chipmunk on his way to a first place in an intermediate Precision Aerobatics contest.

District IV Report

Delaware / District of Columbia / Maryland /North Carolina / Virginia



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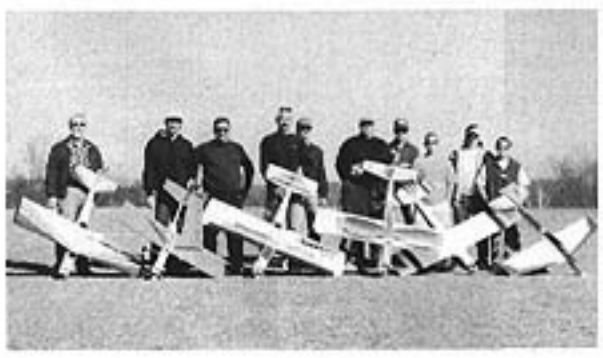
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ENGINEER OF THE YEAR: William H. "Bill" Reed of Hampton, Virginia was named the 2000 Engineer of the Year by the Peninsula Engineers Council.

The Engineers Club of the Virginia Peninsula nominated Bill, and he was selected for his lifelong achievements in the field of aeronautical engineering and his strong commitment to fostering engineering with students on the peninsula. Bill is a member of the Brainbusters Free Flight Club.

Winston Salem Radio Control Club: I have just received a copy of the Winston Salem R/C Club's Field Manual and Flight Training Guide. This manual is one of the best presentations I have seen in a long time. I'm sure much time and effort went into this club project.



This photo shows Winston Salem R/C students and instructors.

If your club is thinking about starting a flight training program, I suggest you contact Allen Eklund, 8415 Maeve Court, Clemmons NC 27012 for a copy of this manual.



On the left is student pilot Jace Allen, and Intro Pilot Allen Eklund is on the right.



On the left, Mike Hitchcock (student), and on the right, Terry Darr (instructor).

Bob Babura, AVP from Maryland, sent in the following photos taken of students in the Indian Creek School Model Airplane Program.



This is Zack, hurrying the glue-drying process.



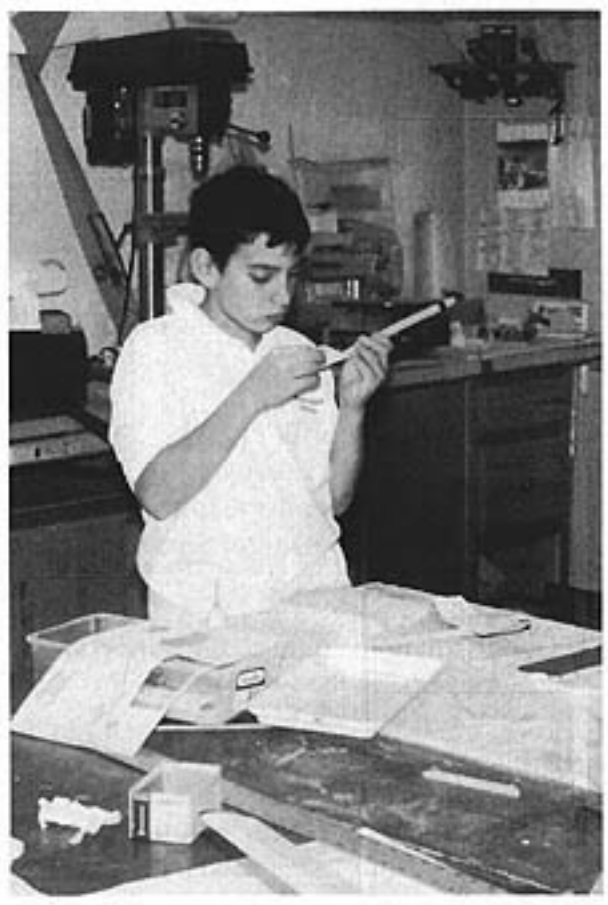
Here is a group enjoying the hobby.



Billy is taking measurements.



AriaAnna and Zack are shown covering with plastic film.



Frank is working on a glider.

Out of space for this month, but don't forget to take a kid flying!

District V Report

Alabama / Florida / Georgia / Mississippi / Puerto Rico / South Carolina / Tennessee

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Joseph Micalizzi, Fajardo PR (787) 863-9163

READ WHAT club president Jim Porzig says about a model airplane club that fails.

"There are several causes for an RC club to fail. Here's one each member can control as an individual.

"The attitude that *I* do not have to do anything but pay dues and fly my airplane is where it all starts. This creates a small group that is soon doing all of the work. When the group gets tired of carrying the load and stops, the club goes into decline.

"Who causes the decline? The small, overworked group or the nonparticipating members?

"Each year our JCRC (Johnson County Radio Control) has a few work days, two or three public events, a monthly club meeting, mowing at our flying site, presentations at schools and public libraries, and this year a 'Keep Clean' project for Lancaster Road.

"Be a total member. Get involved. Give something back to our JCRC. You'll get more out of it that way."

Jim's club is the Johnson City RC in Tennessee. The club officers include Jeff Hamilton, vice president; Ed Fennell, secretary; editor Dick Plum; and Vic Koenig, fiduciary.

The JCRC is a very large, and healthy club and they have just published their year 2000 mowing schedule. Thanks for the nice newsletter, Jim ... or maybe it was editor Dick who sent it to me.

Club president Joseph Micalizzi in Puerto Rico reports two factions trying to fudge in on the club flying field, an "off-road" car group and model RC cars.

The field is an abandoned drag strip 3/4-mile long and 50-feet wide.

Joseph worked out a share deal with all three groups. The RC cars use the strip on the third Sunday of the month; the off-road cars use it on the last Sunday of each month. All the rest of the time the model aircraft club uses it. Joseph says half a loaf of bread is better than none.

Associate vice president Fred Mulholland sent me a nice report on the "Pappy DeBolt" commemorative S.A.M. contest in Bradenton FL.

S.A.M. Chapters 39 and 40 held this contest at the Manatee County RC field.



Above is CD Paul Schmitz presenting a plaque to "Pappy."



Fred wants you to see this snap of the contestants. (L-R) Paul Smitz CD; Harry Edmonds assistant CD; Bob King; Walt Geary, Ted Patrolia; Chuck Hutton; Barbara Krueger; Buddy Tanner; Lloyd Underwood; Herbie Walters; John Hutch; and Mel Glucksman. Fred said everybody had a good time.

Jim Tait in Florida mailed me a note on Elmer Wasman. Elmer is now 91 and in a nursing home. He flew a Radio Control model in the '37 Nats. His assistant was the famous Roy Marquardt.

Jim, Roy has dropped out of modeling. I don't know if he's still alive or not.



Pictured above is Earl Shuholm with his Pattern model. Earl flew it at the Kingdom of the Sun Pattern Meet for 401, 402, 403, 404, and 406. This affair took place at the Ocala FL field. Charles Gordon was the event's CD. Earl was a top competitor.

Joseph Micalizzi with the Demajagua RC flying club in Puerto Rico recently escorted some students in a modeling program to a U.S. Navy base and helped them fly their planes.



This snap above includes David Hodges, Jim Stark Jr., Anthony Martin, Dwane Duckworth, Joel Laureano. Second from left, Jim Stark Jr., is the base commander's son. Everybody had a good time.

Larry Olson, with the Sun Dancers Club in Port St. Lucie, Florida, says his club started 12 years ago with 26 members. Now they have 240 and growing.

They cater to oldies, retired persons. They give free flying lessons but the trainee must have an AMA Membership, a Sun Dancers' club membership, and a model airplane. If the person does not have a plane, the club will rent him one at $5 for 15 minutes.

The plan works well. The club also caters to young persons in two areas. They teach the kids how to build Delta Darts and demonstrate an RC model.



Here above, George Zegaib is showing a group of Cub Scouts the fundamentals of RC flying models.



Here is Tony McIlvane showing the Cub Scouts how to build Delta Darts.

District VI Report

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DOES YOUR club have a success story? Did your club successfully secure a new flying field? How was this done? How long did it take?

Let's help other clubs learn from your experience. Write what you did, send it to me, and I'll publish it in this column.

The following is from Major Ed Bennett. Ed, a longtime AMA member, is also an Aerospace Science Instructor for Air Force Junior ROTC. Clubs interested in promoting aircraft modeling among young kids might try this activity.

Ed arranged for five of his teenage cadets to work a Delta Dart "Make and Take" project at a model aircraft show in Fort Wayne IN. The cadets involved in this effort were Torey Heintzelman, Lionel Pedraza, James Roth, Dustin Brown, and Garrett Maller. Torey had the added responsibility of being the cadet in charge. The Delta Dart, as it is most often referred to is really the AMA Cub.

The cadets first had to learn to construct, trim, and fly the Delta Darts themselves. They then resolved the many problems associated with constructing the Delta Darts relatively quickly, in a group situation, and to suit the circumstances of a "Make and Take" project. They also had to acquire funds to purchase construction supplies, building boards, etc.

Their major expense, the Delta Dart kits, was eliminated. With the help of our VP, the kits were donated by the AMA.

The cadets worked through the problems, and by all accounts, their program was a tremendous success.

Children ranging from about five years to 14 years of age constructed 83 kits in seven hours. Parents were encouraged to get involved to help the younger children.

The cadets had sixteen building stations and that just wasn't quite enough. They gave twenty-five Delta Dart kits to children whose parents could not wait for a building station.

The cadets obviously enjoyed themselves, along with the many parent/child teams, especially when their project flew very well due to the guidance provided by the cadets.

Any group could certainly accomplish what these teenagers did. Kits can be purchased from AMA Headquarters.

Anyone wishing to get more information on this project can contact Ed at (219) 425-7630, ext. 132.





Are you interested in the future of our hobby? What Ed did is one way that we will have new members in the future.

Kansas City MO: Club # 1160, the Radio Control Sport Flyers of Kansas City, held their BBQ and fun fly.

The day was a bit windy, so time was spent doing a little flying and a lot of eating.

Walt Calkins submitted the information and pictures.



The first picture shows the pit area with quite a variety of models.



The wind didn't stop everyone from flying. Here is Mike Krogh walking back from a successful flight.



Club vice president Cliff Miller taxis out for takeoff. Cliff got in three successful flights and one OOPS, but the plane has been repaired and is flying again.



This is the BBQ master, club president and AMA Leader Member, Bernie Drummond. Eat some of his BBQ and you'll understand why Kansas City is considered the BBQ capital of the world.



Not all club members restrict their skills to airplanes. This is Francis Harmon with a true work of art. The steam shovel is made completely of wood, and everything works!

District VII Report

Iowa / Michigan /
Minnesota / Wisconsin



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AS I WRITE this, it is April already. Where does all the time go? It seems as though I just started writing this column.

I want to take this time to thank all of you who have sent congratulatory notes to me. They are appreciated.

I also want to thank all the club secretaries for the newsletters. Rest assured, I do read them all and have found some interesting "how to" articles I may use in future articles.

I would also like to thank Mike Cuba for his unselfishness in getting the volunteers for the Smithsonian's On Miniature Wings program at the Detroit Historical Museum. Mike has jumped in and really done a superb job. Without his assistance and the volunteers he recruited it would have been tough.

I may have to adopt "On the Road Again" as my theme song. Since becoming District VII VP, I have had a very busy few months.

In March, I had the distinct pleasure of presenting Les Hard the AMA Hall of Fame award at the C.A.R.D.S. club meeting.

Les has been one of the cornerstones of the aeromodeling community. Through the years he has received many awards for his contributions to the hobby. Les also was the first editor of the Nats newsletter and the editor of *High Flight,* the IMAA magazine for eight years.

On March 31, I attended the groundbreaking ceremonies for the new headquarters building in Muncie. This was my first visit to the site and I was impressed with the size: 1,011 acres dedicated to aeromodeling. You owe it to yourself to visit the site to appreciate what has been accomplished and what the future has in store for the area.

It is only a four-hour ride from Detroit. A club could get its members together for an outing of flying, get there by noon, fly for a couple of hours, and still be home by nightfall.

While there, you must see the museum. It is a veritable storehouse of memorabilia dating back to the earliest days of aeromodeling. Airplanes, engines, transmitters, and receivers. You name it and I'm sure it is there.

For you folks new to the hobby, I'm sure it would be an eye-opener to see what some of us started with and how much has been improved. I highly recommend it to anyone interested in aeromodeling. If a club should elect to make the trip, it is advisable to call first to see that the site is not being used for a contest. There is no charge.

Next stop on the tour was the Mecca of modeldom, the Weak Signals' Toledo Show. It was a chance to see all the latest equipment, radios, kits, engines, and gadgets that one must have—or at least we think so. Row after row of anything and everything for the hobbyist.

I'm sure *Model Aviation* will have a pictorial that will give much better coverage than I. Impressive? Yes, especially the 200-pound turbine-powered Concorde that was on display. It is scheduled to fly later this fall.

The AMA had a booth attended by the usual competent staff members, offering items of apparel for the modeler such as shirts, caps, and pins, all at modest prices.

The highlight for me was the presentation of the Hall of Fame awards Friday night. AMA president Dave Brown, District III VP Bob Brown, and I presented Ron Morgan and Wayne Yeager the AMA Hall of Fame award for their unselfish contributions to the modeling community.

These are the types of people, along with many more, who have given of themselves to make our hobby what it is today, without the attitude, *what's in it for me.*

To Les Hard, Ron Morgan, and Wayne Yeager: thanks guys, and congratulations.

'Till next time, C.A.V.U.



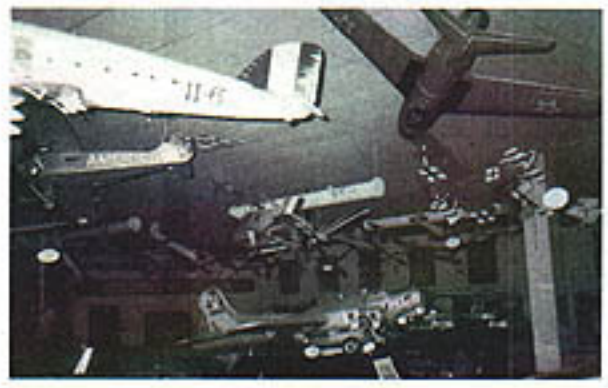
Les Hard and his Hall of Fame award.



Dignitaries at the new AMA Headquarters groundbreaking ceremony included (L-R) AMA president Dave Brown, Executive Director Joyce Hager, District IV VP Chuck Foreman, Delaware County Commissioner Ed Conatser, an architect with Gooden and Ellis, Joe Dowdle, president and founder of Brandt Construction, David Brandt, and AMA employee representative Cliff McKee.



Entrance to AMA Headquarters in Muncie.



The National Model Aviation Museum at AMA Headquarters.



Michele Watson, Erin Reeder, and Ilona Maine staffing the AMA booth at the Toledo Show.



(L-R) District III VP Bob Brown, Hall of Fame inductee Ron Morgan, District VII VP Bill Oberdieck, Hall of Fame inductee Wayne Yeager, and AMA president Dave Brown.

DISTRICT VIII REPORT

Arkansas / Louisiana / New Mexico / Oklahoma / Texas



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AS I draft this column, the Southwestern Aeromodeling Conference is still seven weeks away, and much of the last-minute work and coordination has yet to be accomplished. I expect a real "happening event" to have occurred in its inaugural year!

By the time you read this column, the SWAC will be history, so in advance I want to express my sincere appreciation to all the volunteer district level workers, the commercial exhibit participants, the guest speakers, as well as all of those members of the AMA who attended this conference.

Countless hours and much effort were donated to this cause so that it would be a success and be continued for years to come! Only time will tell, and I'm sure that a decision relative to continuation of this event will be undertaken soon.

Again, to those who attended, participated, or volunteered as workers, I want to express my most sincere thank you for making this event what it was!

Sandy Frank

AMA, the glue that bonds model aircraft enthusiasts—of all types and varieties—together!

Several have asked me about the procedure for submitting information and photographs that could be included in this monthly column. If you would like to see something placed in this AMA District VIII column, please consider that unique and special programs, special-interest events, and things which stand out and are exemplary will be given first priority.

Please allow minimally two to three months for something to appear. Priority is given to necessary organizational concerns and activities. If you, your club, your special-interest group, and/or your community are doing something worthy of sharing with others, both regionally and nationally, please observe the following guidelines:

- Please write your information in full; an introduction, further description, and conclusion or summary.
- Please limit your word count to between 200 and 300 words.
- Please include one or two photographs. The magazine publisher requires real photographs. Do not include digital photographs or electronically scanned photography.
- Please ensure that these photos have an association with the body of your text. They need to show what is happening!
- Please send to me the original photographs by physical mail.
- Please send a cover letter explaining what you have to showcase. Include a printed hard copy of your text, as well as your text on an IBM-formatted floppy disk with the text in a .txt file! (No executable, Word, or other kind of file that may accidentally include a virus. Text files only, please.)

For additional information concerning your showcasing of something special in the District VIII monthly *Model Aviation* column, contact me directly and personally at the address included in this column header.

Throughout the month, using the latest information technology, I attempt to keep up with information available via the Internet concerning model aircraft activities, happenings, and available resources. The following is a list of several of the latest things available on the Internet to assist you further enjoy your model aircraft endeavors:

- AMA's primary Web location: http://www.modelaircraft.org/
- AMA District VIII home page for the most extensive and up-to-date regional (TX, NM, OK, AR, and LA) information available: http://www.ama-dist-8.org/
- A free R/C computer-based flight simulator is offered for downloading at: http://www.pivot.net/~acarr/ron/ron.htm
- Extensive information concerning rechargeable batteries is available at: http://gnv.fdt.net/~redscho/
- A vast warehouse of clip art for modeling purposes is available at: http://www.xtalwind.net/rc/clipart/rcclipart.htm http://www.startext.net/homes/cramskill/inkclay.htm
- A club with great information for the beginner: http://www.palosrc.com/index.html

If you have your personal "best locations" for modeling information on the Internet, send them to me via E-mail and I will include them in a follow-up listing such as above.

March 31, 2000 was a momentous occasion for our organization!



Above is the groundbreaking ceremony for the new administrative office complex that will house the Headquarters of the AMA. Fiscal responsibility and the sale of our Reston VA property allows this 25,000-square-foot building to be built with *no* foreseeable dues increases!



Representing *you* in AMA District VIII, and in the name of all modelers I stated, "God grant us the wisdom to act in the best interest of the membership, the organization, the employees, the environment, the community, and for all of aeromodeling and bless the construction of this new building!"



Above is an artist's vision of the new AMA Headquarters building.

At the above ceremony I recalled previous AMA members, volunteer workers, and staff who have proceeded us and created what the AMA is now.

Someone stated that if the AMA (as it is now) didn't exist, it would be our task to create it anew for the good of all modeling. May this new structure and the AMA thrive and prosper even beyond our time.

Flying, Fun, and Fellowship.

Sandy Frank

District IX Report

Colorado / Kansas / Nebraska / North Dakota / South Dakota / Wyoming



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NEWS FROM North Dakota: The 2000 AMA Event Schedule.

June

June 3-4, Williston Fun Fly, Don Bitz, (701) 572-3081

July

July 8-9, Big Valley Dogs IMAA, Jeff Stremick, (701) 298–8304
July 29-30, Bottineau Fun Fly, Loren Moen, (701) 228-3825
July 29-30, Fargo Control Line, Paul Kegel, (701) 237-3901

August

August 5-6, Fargo Fun Fly, Jeff Stremick, (701) 298–8304
August 12, Casselton Fun Fly, Paul Kegel, (701) 237-3901
August 19-20, Bismarck Fun Fly, Rod Matzke, (701) 255-3893
August 26-27, ND State Fun Fly in Minot, Ron Boen, (701) 838-5216

September

September 9, Jamestown Fun Fly, Mark Pearson, (701) 252-4030 (tentative)

From the Valley RC Flyers: Landing 2000, the Upper Midwest Aviation Symposium, was held in Fargo ND at the Ramada Inn on March 5-8, 2000. The Symposium covered many facets of aviation and drew people from across the Midwest.

Commercial booths and seminars brought products and information to all those attending. The Symposium was also open to the general public.

The Valley RC Flyers were asked to present a series of educational seminars for the several hundred fifth-graders who were bussed to the Symposium from schools in Fargo, Moorhead, and surrounding areas. Aviation is an integral part of the educational program presented by many schools here in the upper Midwest.

Members of the Valley RC Flyers making the presentations included Richard Vos, Don Birmingham, and Dan Loegering, with support by John Altendorf. Dan and I are also pilots of full-size aircraft.

The presentations consisted of a brief explanation of how RC airplanes are built, operate, and flown, with comparisons made to full-size aircraft and emphasis on safety. There were many interesting questions by the youngsters attending and we were able to answer them all satisfactorily.

The RC aircraft on display consisted of a Midwest T-6, Dynaflite PT-19, Midwest Aerostar, House of Balsa Fw 190, RCM plan-built Fly Baby, *RCM* plan-built CAP 21, Kyosho Helicopter, and a 20-foot-long blimp on loan from the Fargo Dome.

We find that being a part of an educational program for young people is a very enjoyable and rewarding experience. We not only teach them about aviation but also introduce them to this exciting and fun sport of RC aircraft.

We strongly encourage other clubs to become involved in educating young people about aviation.

Richard M. Vos
Member, Valley RC Flyers



Don Birmingham, holding the radio, is explaining to one of the many groups of fifth-graders how an RC airplane works. He is being assisted by Dan Logering holding the CAP 21.

News from Wyoming: From *Flightline,* a publication of the Casper Airmodelers in Evansville WY.

What Makes A Club Successful?

One example is from an old tale, just retold by our Pastor.

Seems a homestead family were around the table and the father ad warned them, "Now we got a new mule, her name is Betsy, and stay clear of her—she is vicious. Even get near her and she'll kick you somethin' terrible!"

That afternoon his son was out doing his chores when he looked down into a gully where his Dad was using the mule team to pull stumps. Wide-eyed, he saw his Pa standing right behind Betsy, slapping her on the rump, and urging her on with "mule-skinners-talk."

At supper the boy said, "Pa, you lied to me. You said Betsy was a vicious kicker, yet I saw you right behind her, whaling the tar out of her, and she didn't kick you!"

After a pause, the wise Father replied, "Son, a mule *can't* kick when it's a *pullin'!*"

We can always use *pullers*! Thanks.
by Fred Hildebrand

News from South Dakota: From the Beresford Area Radio Flyers' newsletter, *The BARF RAG,* comes the following article:

Mall Show Winners Announced

The Centre Mall Show sponsored by BARF (Beresford Area Radio Flyers) and the merchants of the Centre Mall in Sioux Center is history for another year.

Our thanks to Don Van Voorst for doing all the legwork to make this show a reality. Thanks, also, to the members and fellow modelers from other clubs who attended and had their aircraft on display.

Reports indicate that the numbers may have been down a bit but the quality of the models was much improved. Seventeen pilots registered 30 models for the show.

The judging was close but the participants chose the following winners:

Best Novice-Steve Hennings, Hudson SD and his Paypod.
Best Paint-Don Van Voorst, Sioux Center IA with his 30% Scale Glasair.
Best Covering-Dale Jorgensen, Jefferson SD and his P-51 built from the Top Flite kit.
Best Slow Flier-Mark Glammeier, Sioux Falls SD and his Buzzard Bombshell Old-Timer.
Best Sport-Craig Miller, Remsen IA and his pattern ship, the Boxer 90
Best Scale-John Merchant (sorry, but I can't find an address) with a P-51 Mustang built from the Top Flite kit.
Best of Show-Sheldon Evjen, South Sioux City NE and his Giant Scale B-26 Marauder.

Congratulations to all the winners, and thanks again to all who participated and made the show a success.

DISTRICT X REPORT

Arizona / California / Hawaii / Guam / Nevada / Utah



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Frequency Coordinators

Eloy Marez Santa Ana CA
(714) 540-4935

(See last month's column for additional AVPs and Coordinators)



At the 1996 Celebration of Eagles Beverly Jeanne (Bev) Wisniewski was honored for her tremendous contribution to model aviation and more than 20 years service as part of the management team for the AMA National Championships. Bev was then only the fifth woman in AMA history to receive AMA's highest achievement award, the AMA Fellow Award. Since retiring from the Nats, Bev continued to serve her fellow modelers as the District X representative to the Control Line Contest Board.

ON MARCH 11, 2000, we lost this dear friend, and on March 25, a memorial service was held in Lake Havasu City AZ to honor Bev's memory. Bev's husband Bill, her family, and friends gathered to support one another and to share the joy and loving memory of Bev's life.

Bev's memorial coincided with the 12th Annual Vintage Stunt Championships in Tucson AZ where modelers from around the world gathered to enjoy the hobby that Beverly loved.

Thoughts of Bev were shared throughout the day and a moment of silence was observed at the Saturday night banquet to honor her memory.

Everyone seemed to have a special recollection of Bev; however, Lou Crane of the Cholla Choppers may have said it best. Lou commented, "If you never had an argument with Bev, then you never tried to help Control Line modeling, but if you never lost an argument to Bev, then you never truly helped Control Line modeling."

We love you Bev, and we will miss you dearly.



On Sunday, March 26, members of the California United Free Flight Model Airplane Club (CUFFMAC) filled the banquet room of the Castaways Resort in Burbank CA to hear guest speaker Bud Romak recount his extraordinary experiences in FAI competition and in more than 60 years of aeromodeling.



At this year's CUFFMAC banquet, Carl Hatrak shared his extraordinary collection of patches and pins collected during his years of involvement in model and full-scale aviation. His most extraordinary artifact may well be his patch from the 1936 Nats.



CUFFMAC President Ron Booth presents flowers of appreciation to Margie Moffett for her contributions to the organization.



At the 2000 Annual CUFFMAC banquet, it was my proud honor to present Clarence (Clarey) Ames with AMA's Distinguished Service award for his years of service in the promotion of model aviation and the aeromodeling education of our youth. Thanks Clarey for your many years of service to the hobby and District X.



The winches ran flawlessly at the 12th Annual Southwest Soaring Classic held February 5-6, in Queen Creek AZ.

The Central Arizona Soaring League (CASL) sponsors the Annual Southwest Soaring Classic held each February at Schnepf Farms located 30 miles southeast of Phoenix in the Valley of the Sun.

This year's event was blessed with two gorgeous days of flying, light breezes, and temperatures in the mid-70s. There were 177 competitors signed up for the contest, and to say that everyone had a great time would be an understatement.

Everyone I spoke with raved about the fantastic job performed by the CD, Dave Wenzlick, and the members of the CASL club.

The Southwest Soaring Classic is the first leg of the annual Soaring Triad points challenge. The second leg is held in Pasadena in the spring with the final leg flown at the Visalia Fall Soaring Festival where the points totals are tabulated and the winners are announced.



The top 10 finishers in the Open Class, Southwest Soaring Classic in award order were 1. Joe Wurts, 2. Skip Miller, 3. Daryl Perkins, 4. Paul Anderson, 5. John Rodgers, 6. Gordon Jennings, 7. Jerry Robertson, 8. Michael Smith, 9. Dusty Miller, and 10. Tom Kallevang.

Till next time ... Keep 'em safe and Keep 'em fly'n.

District XI Report

Alaska / Idaho / Montana / Oregon / Washington



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IT IS WITH great regret that I report the passing of Bev Wisnieswski. Bev is well-known for her many years of volunteer work at many AMA Nationals, not to mention her help at various other events.

Bev always had a warm smile and a hug for her many friends and will be missed by many.

The Canadian Nationals will be held in Vancouver B.C., July 29 through August 6, 2000. RC Soaring events will be held on July 29 and 30 in Mission B.C. at Anderson's Turf Farm, the same site as the 1999 NWSS. Tournament.

Information on all events and application forms can be found at http://members.home.net/nats2000.

For all you float fliers, the Rogue Eagles RC Club at Medford is holding two Float Flys at Lake Agate. The spring event is May 13-14 and the fall event will be held on October 7-8.

For more information, contact Bill Grove at grovtec@cdsnet.net.

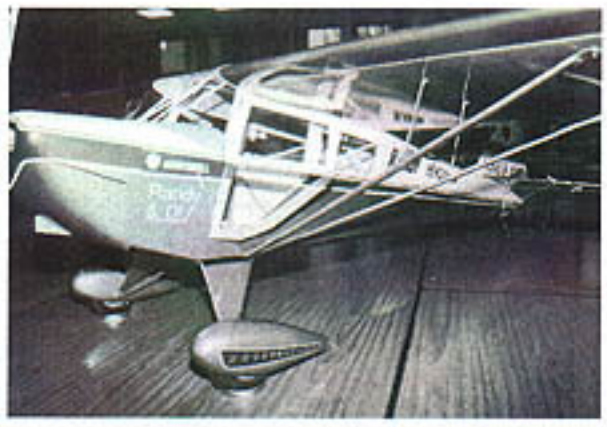
I received an E-mail from Dave Lawler, the secretary of the Bend Aero Modelers, Bend OR. Dave reports that in the last few years their club had dwindled to just a few members, but recently they have gown to 40 active members.

In addition to the new members, their flying field also has a new paved runway. The club also put on a show at the River Bend Mall on March 26 and 27. It's good to see a club that has had some difficulties bounce back.

Al Franklin of the Cascade Big Birds club reports that they were about to lose their field in Monroe WA, but found a way to save it. They broke open their piggy banks and bought the field. I guess that's one way to beat being evicted!

Al Franklin is the builder of the beautiful 1/4-scale Grumman Super Widgeon that appeared in this column recently.

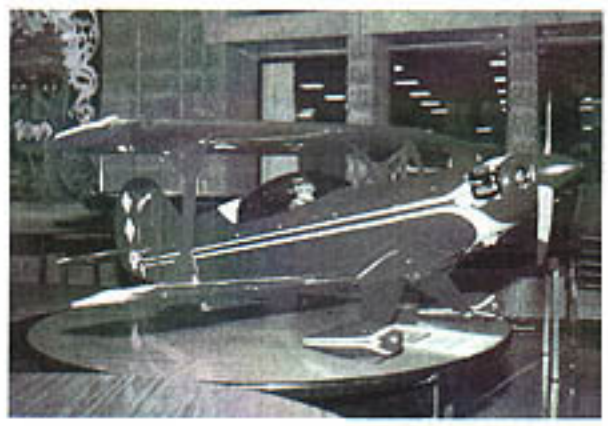
The Barons Model Club of Spokane recently held their annual Show and Swap Meet. Here are three photos of some of the airplanes that were on display.



Ray Care's 1/3-scale clipped-wing Taylorcraft, a model of Randy Henderson's "Texas T-Cart."



Paul Harding's scratch-built de Havilland Mosquito. Give Paul a block of aluminum and a file and he will make you a Scale set of retracts.



Don Pittman's Pitts S-2B has a Saito 150 for power.

All three of these gentlemen are part of the Barons' Over-the-Hill Escadrille.

As you read this, work will have begun on the new Headquarters building in Muncie. Since 1993, AMA's staff has been working out of a warehouse-type building designed to house the National Model Aviation Museum and the Lee Renaud Memorial Library.

The present office space has been "temporary" for seven years. At this time there are no permanent offices, just work areas. This is not a good work environment and not conducive to attracting new employees.

Once the new office space is available, the museum and library can be finished. Many aircraft and books have to be kept in storage, as there is not room to display them now.

The new 25,000-square-foot Headquarters facility will resemble an airport concourse, complete with a tower. Observation decks will allow visitors to view various flying activities around the site.

The building will be built south of the pond that collects runoff water from the building and parking lots, and will serve as a heat sink for the climate control system.

Water-source heat pumps will use the energy stored in the pond for heating and air-conditioning, reducing the building's reliance on fossil fuel-derived energy. This will reduce operating costs and the building's environmental impact.

It's good to hear positive stories in the wake of news about flying fields being lost. We are fortunate here in the Northwest. Unlike many areas, we do not have the building rush being experienced in more populated regions of the country.

Nevertheless, we need to continue to protect what we have, and one of the best ways to do that is to be a "good neighbor" in your community.

As a club, get involved in civic projects, work with local schools, and do anything else that shows your community that you care about them. It will pay off in the end.

Keep flying and smiling.

EC Meeting Minutes Available

A complete copy of the approved minutes of any quarterly Executive Council meeting is available to any AMA member on request.

A copy of the most-recently approved minutes will be provided at no charge. *Council meets quarterly, and minutes from a given meeting are approved at the following meeting.* Additional copies, or minutes from other meetings, are $5 each (shipping and handling charge).

Requests may be submitted to AMA Administration by telephone, via fax, or in writing.

For telephone requests, dial (765) 287-1256, extension 201; fax requests use (765) 741-0057. There is a $10 minimum for credit card orders.

Steve Kaluf's Technical Director's column will resume next month.

National Records Update

MARCH 2000

CONTROL LINE

Navy Carrier I

Op. William Bischoff 471.6

02-20-00

Navy Carrier II

Op. William Bischoff 493.3

02-20-00

Profile Navy Carrier

Sr. Andy Westerheim 341.1

02-20-00

RC PYLON

Q-500 (Long Course)

Op. Gordon Hyde 1:03.98

01-15-00

COMPETITION DIRECTORY

CONTEST COORDINATORS

I: Robert Wilkis, 19 Everett St., Rockland, MA 02370
II: **CL & FF:** Richard Sobrino, 87-26 88th St., Woodhaven ,NY 11421
RC: Robert Kircher, 9 Sheffield Way, Clark, NJ 07066
III: **CL, FF, & RC:** Nelson Gould, 1944 S. Idaho Street, Allentown, PA 18103 (East)
CL, FF, & RC: M. Weisenbach, 4568 W. 146th, Cleveland, OH 44135 (West)
IV: **CL & FF:** Jim Coffin, 4604 Hillbrook Dr., Annandale, VA 22003
RC: Alice Munday, 18 W. Lewis Rd., Hampton, VA 23666
E-mail: amurday@widowmaker.com
V: **RC:** Lamar Blair, 407 Glennwood Rd. SW, Decatur, AL 35601
FF: Bob Jurk, 984 Williams Ditch Rd., Cantonment, FL 32533
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VI: **RC (except Soaring):** Randy Cameron, 2134 S. Hillcrest Ave., Springfield, MO 65807
RC Soaring: Dale Folkening, 1544 Darien Lake Dr., Darien,IL 60559
FF: Charles Markos, 655 Carlisle Ave., Deerfield, IL 60015
CL: William (Bud) Bodtioch, Jr., 1800 Trail Ridge St., Arlington Heights, IL 60004
VII: **FF AMA Headquarters, Competition Department**
CL: Marc Warwashana, 11577 N. Shore Dr., Whitmore Lake, MI 48189-9124
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RC (Michigan only): Wayne Yeager, 15387 Forrister Rd., Clayton, MI 49235
VIII: **CL & FF:** Bill Lee, 601 Van Zandt, CR 4815, Chandler, TX 75758
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XI: Dick Salter, 7217 So. 133rd St., Seattle, WA 98178
RC: W.T. (Bill) Smith, 10825 44th Ave. S.W., Seattle, WA 98146

CONTEST BOARD

Boldface Below Indicates Chairman of Contest Board

INDOOR CONTEST BOARD
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II: Doug Barber, 25 S. Church Rd. Unit 146, Maple Shade, NJ 08052
III: Walt VanGorder, 5669 Victory View Ln., Cincinnati, OH 45233
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VI: Larry Coslick, 4202 Valley Crest Hill, St. Louis, MO 63128
VII: Richard Doig, 2139 Sommerville Dr., Oxford, MI 48371
VIII: **Ralph (Bud) Tenny, PO Box 830545, Richardson, TX 75080**
IX: H. Stan Chilton, 3010 Grail, Wichita, KS 67211
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XI: John Thompson, 2456 Quince St., Eugene, OR 97404

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VIII: George Parks, 2102 Oxford Ave., Austin, TX 78704
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XI: Bernard Cawley, 29838 48th Ave. S., Auburn, WA 98001

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VII: David von Linsowe, 7093 E. Dodge Rd., Mt. Morris, MI 48458
VIII: Williams Thomas, 5442 Bow Dr., Bartlesville, OK 74006
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XI: Rick Allison, 26405 SE 160th St., Issaquah, WA 98027

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VI:
VII: Roy Dietz, 12450 Lansdowne, Detroit, MI 48224
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VI: Dan Kane Jr., 5237 N. Canfield, Chicago, IL 60656
VII: Steve Metzger, 7160 Willobee, Coloma, MI 49038
VIII: Mike Heisel, 7 Stillmeadow, Round Rock, TX 78664
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X: James Allen, 4235 E. Ellis Circle, Mesa, AZ 85205
XI: Tom Strom, 1420 SW 160th, Seattle, WA 98116

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II: Roman Paryz, 59 Steinfeldt Rd., Lancaster, NY 14086
III: **Gene Shelkey, 217 Euclid Ave., Scottdale, PA 15683**
IV: Douglas Barry, 5300 Olde Hillbrooke Dr., Glen Allen VA 23060
V: Charles Anderson, P.O. Box 305, Tullahoma, TN 37388
VI: Rick Burnoski, 158 Canyon Dr., Bolingbrook, IL 60440
VII: Al Scidmore, 5013 Dorsett Dr., Madison, WI 53711
VIII: Barry Kennedy, 1935 Highvalley Tr., Grand Prairie, TX 75052
IX: Byron Blakeslee, 1448 W. Briarwood Dr., Littleton, CO 80120
X: Randy Spencer, 2617 Fisk Ln., Redondo Beach, CA 90278
XI: Dave Johnson, 16500 SE 1st St. #114, Vancouver, WA 98684

SPECIAL EVENTS CONTEST BOARD

Chairpersons from each of the other Contest Boards and the Contest Board Coordinator. See individual listings above or below for addresses.

Ralph (Bud) Tenny	Woody Blanchard	Duane Gall	Thomas Hampshire	John Fuqua
Gene Shelkey	Bonny Jenkins	Horace Hagen	Cliff Telford	David Platt

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INDOOR
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Gil Morris, 2810 Brackley Rd., Columbus, OH 43220
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Bill Lee, 601 Van Zandt, CR 4815, Chandler, TX 75758
CL COMBAT
Gary Frost, 13 Castlewood Ct., St. Peters, MO 63376
CL AEROBATICS
Wynn Paul, 3332 Carriage Ln., Lexington, KY 40517
RC SOARING
Buzz Averill, 166 Sedillo Hill Rd., Tijeras, NM 87059
RC AEROBATICS
Chris Lakin, 2132 S. Stewart, Springfield, MO 65804
RC PYLON
Wayne Yeager, 15387 Forrister Rd., Clayton, MI 49235
RC ELECTRIC
Keith Finkenbiner, 7050 El Fuerte Street, Carlsbad, CA 92009
RC HELICOPTER
Horace Hagen, 15 Parkway Pl., Red Bank, NJ 07701
SPACEMODELING
Howard Kuhn, 7206 Beechwood Road, Alexandria, VA 22307

F A I W o r l d R e c o r d s

As of April, 2000

F1A (Glider)

Type of Record	Performance	Held By	Country	Date
No17: Duration	4hr 56mn 10s	Momcilo Miuticovic	Yugoslavia	05-15-60
No18: Distance in Straight Line	310.33km	Zdenek Taus	Czechoslovakia	03-31-62
No19: Height	2364m	Georges Benedek	Germany	05-23-48

F1B (Aeroplane, Extensible Motor)

Type of Record	Performance	Held By	Country	Date
No1: Duration	1h 41mn 32s	Valery Fiodorov	USSR	06-19-62
No2: Distance in Straight Line	371.19km	Guennadi Tchiglinsev	USSR	07-01-62
No3: Height	1732m	Valery Fiodorov	USSR	06-19-64
No4: Speed	187.68kmh	Andrew Belanov	USSR	09-06-87

F1B (Seaplane, Extensible Motor)

Type of Record	Performance	Held By	Country	Date
No40: Duration	49mn 45s	Boris Krasnorutsky	USSR	05-28-87
No41: Distance in Straight Line	12.88km	Boris Krasnorutsky	USSR	09-13-87
No42: Height	114m	Boris Krasnorutsky	USSR	05-28-87
No43: Speed	113.24kmh	Yuri Krasnorutsky	USSR	06-25-89

F1C (Aeroplane, Piston Motor)

Type of Record	Performance	Held By	Country	Date
No5: Duration	6hr 01mn	Igor Houlakovsky	USSR	08-06-52
No6: Distance in Straight Line	378.76km	Evgueny Boricevitch	USSR	08-14-52
No7: Height	6468m	Yin Chenbai	People's Republic of China	08-08-82
No8: Speed	189.30kmh	Artur Shaginian	Russia	07-03-99

F1C (Seaplane, Piston Motor)

Type of Record	Performance	Held By	Country	Date
No44: Duration	4h 00mn 41s	Toomas Martna	Russia	09-22-91
No45: Distance in Straight Line	130.90km	Jiang Bir	People's Republic of China	08-29-82
No46: Height	4600m	Dong Chunlai	People's Republic of China	08-17-82
No47: Speed	98.07kmh	Igor Zhidanov	USSR	09-16-87

F1D (Indoor Models, Extensible Motor)

Type of Record	Performance	Held By	Country	Date
No32-a: Duration (ceiling less than 8m)	59mn 19s	Robert Randolph	USA	01-21-96
No32-b: Duration (ceiling 8m-15m)	45mn 32s	Robert Randolph	USA	10-17-93
No32-c: Duration (ceiling 15m-30m)	45mn 14s	Robert Randolph	USA	09-26-93
No32-d: Duration (ceiling over 30m)	31hr 00mn 01s	Stephen Brown	USA	06-01-97

F1E (Helicopter, Extensible Motor)

Type of Record	Performance	Held By	Country	Date
No9: Duration	33mn 26.7s	Albert Nazarov	USSR	06-03-68
No10: Distance in Straight Line	5237.5m	Giulio Pelegi	Italy	08-03-74
No11: Height	512m	Petras Motekaytice	USSR	08-30-75
No12: Speed	144.24kmh	Petras Motekaytice	USSR	06-12-70

F1F (Helicopter, Piston Motor)

Type of Record	Performance	Held By	Country	Date
No13: Duration	3h 12mn	Stefan Purice	Romania	10-01-65
No14: Distance in Straight Line	91.49km	Viatcheslav Titlov	USSR	10-01-63
No15: Height	3750m	Stefan Purice	Romania	09-24-63
No16: Speed	186.12kmh	Anatoly Pavlov	USSR	09-20-70

F2A (Aeroplane, Piston Motor)

Type of Record	Performance	Held By	Country	Date
No 27a: Speed (1 to 2.5cm3)	313.45kmh	Paul Eisner	United Kingdom	6-27-87
No 27: Speed (less than 1cm3)	251.66kmh	Zhao Jihe	People's Republic of China	8-22-84
No 28: Speed (2.5l to 5cm3)	312.23kmh	P.A. Hallman	United Kingdom	10-12-86
No 29: Speed (5.01 to 10cm3)	326.28kmh	Shen Xilin	People's Republic of China	10-19-84

Type of Record	Performance	Held By	Country	Date
No30: Speed	395.64kmh	Leonid Lipinski	USSR	12-06-71

F2C (Aeroplane (Team Racing), Piston Motor)

Type of Record	Performance	Held By	Country	Date
No57: Speed (100laps)	3mn 14.1sec	Sergei Andrejek & Sergei Sobko	Russia	08-26-98
No58: Speed (200laps)	6mn 37.5sec	Sergei Andrejek & Sergei Sobko	Russia	08-27-98

F3A (Aeroplane, Piston Motor)

Type of Record	Performance	Held By	Country	Date
No20: Duration	33h 39mn 15s	Maynard Hill	USA	10-01-92
No21: Distance in Straight Line	832.43km	Ronald Clem	USA	06-14-98
No22: Height	8205m	Maynard Hill	USA	09-06-70
No23: Speed	343.92kmh	Vladimir Gouskoune	USSR	09-21-71
No31: Distance in Closed Circuit	1301.00km	Maynard S. Hill	USA	08-02-98
No53: Speed in Closed Circuit	241.80kmh	Maynard Hill	USA	11-26-84

F3A (Seaplane, Piston Motor)

Type of Record	Performance	Held By	Country	Date
No48: Duration	16h 14mn 11s	Toomas Martna	Estonia	08-14-99
No49: Distance in Straight Line	308.84km	Gian Maria Aghem	Italy	03-26-94
No50: Height	5651m	Maynard Hill	USA	09-03-67
No51: Speed	294.98kmh	Vladimir Gouskoune	USSR	09-25-71
No52: Distance in Closed Circuit	601.00km	Daniel Coince	France	09-15-91
No54: Speed in Closed Circuit	192.90kmh	Michel Ichenko	Ukraine	06-20-93

F3B (Glider)

Type of Record	Performance	Held By	Country	Date
No24: Duration	33h 32mn 30s	A. Smolentsev	USSR	09-04-86
No25: Distance in Straight Line	226.44km	Joseph Wurts	USA	05-28-88
No26: Height	1950m	Jack Hiner	USA	06-11-82

Type of Record	Performance	Held By	Country	Date
No33: Speed	239.70kmh	Klaus Kowalski	Germany	07-20-91
No34: Distance in Closed Circuit	716.10km	Eduard Svoboda	Czechoslovakia	07-23-79
No55: Speed in Closed Circuit	129.70kmh	Zufar Vakkasov	Russia	06-23-97

F3C (Helicopter, Piston Motor)

Type of Record	Performance	Held By	Country	Date
No35: Duration	5hr 15mn 06s	Mikhail Pruss	USSR	08-14-90
No36: Distance in Straight Line	134.10km	Michael Farnan	Australia	02-06-96
No37: Height	2940m	Jean-Philippe Allogne	France	04-12-92
No38: Speed	144.63kmh	Vladimir Balacnikov	Russia	07-02-98
No39: Distance in Closed Circuit	101.00km	Jean-Philippe Allogne	France	06-18-88
No56: Speed in Closed Circuit	112.72kmh	David W. Whitney	United Kingdom	11-02-86

F3D (Aeroplane (Pylon racing), Piston Motor))

Type of Record	Performance	Held By	Country	Date
No83: Speed in Closed Circuit	59.3s	Richard Verano	USA	07-13-99

F5-COMB (Aeroplane, Electric Motor (all sources of current))

Type of Record	Performance	Held By	Country	Date
No77: Duration	15hr 35mn 55s	Wolfgang Schaper	Germany	06-22-91
No78: Distance in Straight Line	109.00km	Gian Maria Aghem	Italy	06-19-91
No79: Height	4539m	Gian Maria Aghem	Italy	02-20-95
No80: Speed	274.80kmh	Wolfgang Kuppers	Germany	08-09-98
No81: Distance in Closed Circuit	490.00km	Wolfgang Schaper	Germany	06-22-91
No82: Speed in a Closed Circuit	160.45kmh	Franz Weissgerber	Fed Rep of Germany	11-25-89

F5-P (Aeroplane, Electric Motor (Non-rechargeable Sources of Current))

Type of Record	Performance	Held By	Country	Date
No65: Duration	15hr 12mn 30s	Walter Eagel	Switzerland	06-21-98
No66: Distance in Straight Line	135.00km	Gian Maria Aghem	Italy	06-19-91
No67: Height	2200m	Gian Maria Aghem	Italy	09-18-88
No68: Speed	168.51kmh	H. Josef Backstein	Germany	06-10-90
No69: Distance in Closed Circuit	424.50km	Walter Eagel	Switzerland	06-21-98
No70: Speed in Closed Circuit	97.20kmh	H. Josef Backstein	Germany	06-10-90

F5-S (Aeroplane, Electric Motor (Rechargeable Sources of Current))

Type of Record	Performance	Held By	Country	Date
No59: Duration	10hr 38mn 30s	Emil Hilber	Switzerland	06-21-98
No60: Distance in Straight Line	102.40km	Anatoly Dubinetsky	Russia	08-25-90
No61: Height	2026m	Anatoly Dubinetsky	Russia	09-24-91
No62: Speed	282.60kmh	Werner Vauth	Germany	08-08-92
No63: Distance in Closed Circuit	315.50kmh	Emil Hilber	Switzerland	06-21-98
No64: Speed in Closed Circuit	163.68kmh	Franz Weissgerber	Fed Rep of Germany	11-25-89

F5-SOL (Aeroplane, Electric Motor (Solar Cells))

Type of Record	Performance	Held By	Country	Date
No71: Duration	11hr 34mn 18s	Wolfgang Schaper	Germany	07-13-97
No72: Distance in Straight Line	48.21km	Wolfgang Schaper	Germany	07-13-97
No73: Height	2065m	Wolfgang Schaper	Germany	05-30-99
No74: Speed	60.63kmh	Wolfgang Schaper	Germany	06-21-98
No75: Distance in Closed Circuit	190.00km	Wolfgang Schaper	Germany	06-17-90
No76: Speed in Closed Circuit	62.15kmh	Wolfgang Schaper	Germany	06-17-90

AMA National Records

As of April, 2000

INDOOR AMA CEILING CATEGORY I

Age	Min/Sec	Held By	Date Set
HL Stick			
Jr.	16:48	Jonathan Harlan	10-01-83
Sr.	13:15	Don Slusarczyk	12-11-88
Op.	39:09	Robert Randolph	01-26-96
Intermediate Stick			
Jr.	11:49	Don Slusarczyk	08-12-86
Sr.	22:08	Don Slusarczyk	12-09-90
Op.	30:40	Stan Chilton	08-05-95
FID (FAI)			
Jr.	16:48	Jonathan Harlan	10-01-83
Sr.	13:15	Don Slusarczyk	12-11-88
Op.	37:38	Stephen H. Brown	10-22-95
ROG Cabin			
Jr.	10:01	Jonathan Harlan	10-01-83
Sr.	05:40	Don Deloach	04-21-89
Op.	16:15	Robert Randolph	04-05-91
Manhattan Cabin			
Jr.	03:12	Don Slusarczyk	08-19-86
Sr.	05:40	Don Deloach	04-21-89
Op.	08:31	Walter VanGorder	12-09-90
Easy B			
Jr.	08:26	Don Slusarczyk	08-19-86
Sr.	13:04	Don Slusarczyk	12-09-90
Op.	21:44	Larry Coslick	02-11-96
Pennyplane			
Jr.	06:12	Jake Palmer	06-26-93
Sr.	09:56	Don DeLoach	05-19-90
Op.	13:45	Jim Clem	08-06-95
Limited Pennyplane			
Jr.	06:12	Jake Palmer	06-26-93
Sr.	09:56	Don DeLoach	05-19-90
Op.	16:14	Warren J. Williams	05-10-96
Helicopter			
Jr.	06:24	Jon Harlan	06-29-85
Sr.	04:52	Ronnie Stransky	03-31-73
Op.	11:07	James Richmond	12-11-88
Ornithopter			
Jr.	03:22	Scott T. Robbins	03-23-91
Sr.	05:16	Don Slusarczyk	12-11-88
Op.	09:08	Roy White	10-01-95
Autogiro			
Jr.	02:43	Don Slusarczyk	08-21-86
Sr.	06:52	Don Slusarczyk	12-09-90
Op.	10:10	Don Slusarczyk	12-22-96
HLG			
Jr.	01:01.4	Jon Chancey	03-31-84
Sr.	01:03.3	Don DeLoach	05-11-91
Op.	01:34.8	Stan Buddenbohm	03-13-91
ROG Stick			
Jr.	08:09	Mike Clem	12-14-80
Sr.	5:51.05	James Baston	04-14-91
Op.	17:17	Larry Coslick	10-20-98
Standard Class Catapult Glider			
Jr.	0:44.2	Ryan Naccarato	11-13-98
Sr.	20.7	Rob Eberle	04-16-95
Op.	01:24.8	Wayne Trivin	07-13-97
Unlimited Class Catapult Glider			
Jr.	0:43.5	Ryan Naccarato	11-13-98
Sr.		No record established	
Op.	01:24.8	Wayne Trivin	07-13-97
Mini Stick			
Jr.	05:05	Sagan Shepherd	11-27-98
Sr.	06:04	Jonathan Sayre	04-26-98
Op.	09:58	Walt VanGorder	03-28-97

INDOOR AMA CEILING CATEGORY II

Age	Min/Sec	Held By	Date Set
HL Stick			
Jr.	07:45	Jonathan Harlan	04-15-84
Sr.	23:16	Don Slusarczyk	07-12-87
Op.	45:32	Robert Randolph	10-17-93
Intermediate Stick			
Jr.	09:12	Aaron Markos	09-29-84
Sr.	21:04	Don Slusarczyk	07-13-87
Op.	31:37	Larry Coslick	09-12-95
FID (FAI)			
Jr.	07:45	Jonathan Harlan	04-15-84
Sr.	23:16	Don Slusarczyk	07-12-87
Op.	35:58	Robert Randolph	10-24-93
ROG Cabin			
Jr.	08:26	Paul Loucks	04-05-81
Sr.	17:37	Don Slusarczyk	07-13-87
Op.	21:57	William Shailor	07-13-87
Manhattan Cabin			
Jr.	04:19	Don Slusarczyk	04-27-86
Sr.	07:23	Don DeLoach	03-20-88
Op.	09:32	Walt VanGorder	07-12-87
Easy B			
Jr.	09:12	Aaron Markos	09-29-84
Sr.	14:21	Andrew Tagliafico	07-07-90
Op.	21:14	Larry Coslick	05-08-97
Pennyplane			
Jr.	08:18	Aaron Markos	09-30-84
Sr.	09:24	Jake Palmer	04-30-94
Op.	16:41	Raymond B Harlan	10-11-97
Limited Pennyplane			
Jr.	08:18	Aaron Markos	09-30-84
Sr.	09:24	Jake Palmer	04-30-94
Op.	12:28	William Pawek	11-17-96
Helicopter			
Jr.	06:39	Jonathan Harlan	04-15-84
Sr.	02:28	Thomas Norell	04-14-85
Op.	11:00	Larry Coslick	04-27-95
Ornithopter			
Jr.	03:13	Scott Robbins	04-11-91
Sr.	04:27.0	Jonathon Sayre	04-24-99
Op.	10:01	Roy White	12-30-95
Autogiro			
Jr.		No record established	
Sr.		No record established	
Op.	08:38	Ronald Garner	02-13-93
HLG			
Jr.	01:16	Aaron Markos	09-30-84
Sr.	01:21.8	Bryan Palmer	03-20-83
Op.	01:39.8	Daniel Dorina	06-13-82
ROG Stick			
Jr.	07:04	Don Slusarczyk	11-30-86
Sr.	12:14	Mark Drela	06-12-77
Op.	17:06	Larry Coslick	10-24-98
Standard Class Catapult Glider			
Jr.	01:01.7	Kenny Krempetz	11-16-97
Sr.		No record established	
Op.	01:47.9	Wayne R. Trivin	10-26-96
Unlimited Class Catapult Glider			
Jr.	01:07.0	Kenny Krempetz	11-22-98
Sr.		No record established	
Op.	01:47.9	Wayne R. Trivin	10-26-96
Mini Stick			
Jr.		No record established	
Sr.	07:45	Jonathan Sayre	04-26-98
Op.	10:34	Andrew Tagliafico	01-25-98
Electric R/C Duration			
Jr.		No record established	
Sr.		No record established	
Op.	01:09.07	Bob Wilder	03-24-98

INDOOR AMA CEILING CATEGORY III

Age	Min/Sec	Held By	Date Set
HL Stick			
Jr.	20:52	Paul Loucks	06-18-82
Sr.	29:31	Richard Whiten	07-30-76
Op.	45:14	Robert Randolph	09-26-93
Intermediate Stick			
Jr.	19:04	Paul Loucks	06-12-83
Sr.	25:24	Don Slusarczyk	08-21-88
Op.	35:43	Stan Chilton	07-19-94
FID (FAI)			
Jr.	20:52	Paul Loucks	06-18-82
Sr.	29:31	Richard Whiten	07-30-76
Op.	39:27	Cezar Banks	06-18-82
ROG Cabin			
Jr.	15:07	Paul Loucks	06-25-81
Sr.	15:42	Tom Sova	08-06-73
Op.	25:19	Ronald Garner	06-03-77
Manhattan Cabin			
Jr.	03:15	Don Slusarczyk	04-13-86
Sr.	08:52	Don Slusarczyk	08-21-88
Op.	11:32	Walt VanGorder	10-03-93
Easy B			
Jr.	17:57	Robert Skrjanc	06-18-82
Sr.	18:05	Don Slusarczyk	08-20-88
Op.	25:56	Larry Coslick	05-04-97
Pennyplane			
Jr.	12:36	Jeni Jacobs	06-14-83
Sr.	14:36	Dave Lindley	06-17-82
Op.	16:20	John Kagan	05-02-93
Limited Pennyplane			
Jr.	12:24	Aaron Markos	06-15-83
Sr.	11:41	Mike VanGorder	06-15-83
Op.	13:27	Walter VanGorder	01-02-00
Helicopter			
Jr.	06:18	Jonathan Harlan	06-18-84
Sr.	04:47	Ron Ganser, Jr.	08-29-71
Op.	09:16	Lew Gillow	06-26-80
Ornithopter			
Jr.	03:21	Scott T. Robbins	12-09-90
Sr.	09:11	Don Slusarczyk	08-21-88
Op.	13:22	Roy White	12-30-95
Autogiro			
Jr.	04:08	Dave Lindley	06-26-80
Sr.	08:36	Don Slusarczyk	10-30-90
Op.	10:58	Ronald Garner	05-01-94
HLG			
Jr.	02:10.4	Darryl Stevens	08-07-77
Sr.	02:32.6	Gary Stevens	08-07-77
Op.	02:35.1	James C. Buxton	10-03-93
ROG Stick			
Jr.	10:02	Dave Lindley	06-28-80
Sr.	11:09	Richard Whiten	06-02-77
Op.	20:03	Lawrence Coslick	05/03/98
Standard Class Catapult Glider			
Jr.	01:27.5	Kenny Krempetz	05-02-99
Sr.	01:58	Chris Sydor	05-01-94
Op.	02:48.2	Stan Buddenbohm	12-27-98
Unlimited Class Catapult Glider			
Jr.	01:31.3	Kenny Krempetz	05-02-99
Sr.	01:38	Chris Sydor	05-01-94
Op.	03:08	Stan Buddenbohm	12-27-98
Mini Stick			
Jr.		No record established	
Sr.		No record established	
Op.	11:49	Andrew Tagliafico	12-27-98

INDOOR AMA CEILING CATEGORY IV

Age	Min/Sec	Held By	Date Set
HL Stick			
Jr.	34:44	Jonathan Harlan	09-01-85
Sr.	41:25	Don Slusarczyk	09-02-90
Op.	60:01	Stephen Brown	06-01-97
Intermediate Stick			
Jr.	15:54	Mike VanGorder	07-13-79
Sr.	28:53	Don Slusarczyk	06-08-90
Op.	41:48	Larry Coslick	09-03-95
FID (FAI)			
Jr.	34:44	Jonathan Harlan	09-01-85
Sr.	41:25	Don Slusarczyk	09-02-90
Op.	53:45	Stephen H. Brown	08-17-97
ROG Cabin			
Jr.	14:35	Jonathan Harlan	08-14-83
Sr.	27:10	Don Slusarczyk	06-08-90
Op.	33:20	Robert Randolph	06-05-82
Manhattan Cabin			
Jr.	04:31	Jim Burton	06-07-87
Sr.	10:28	Don Slusarczyk	06-03-89
Op.	15:17	James Grant	07-05-95
Easy B			
Jr.	18:07	Andrew Tagliafico	08-05-88
Sr.	22:56	Don Slusarczyk	09-03-90
Op.	34:13	Larry Coslick	05-18-97
Pennyplane			
Jr.	13:10	John Schaaf	07-03-94
Sr.	15:08	Jake Palmer	07-18-93
Op.	19:45	Tony D'Alessandro	08-07-99
Limited Pennyplane			
Jr.	13.09	Stacey Pelrang	04-18-98
Sr.	15:26	John Cawthorne Jr	07-05-98
Op.	18:34	Lawrence Cullian	08-17-97
Helicopter			
Jr.	06:47	Nick Leonard, Jr.	08-01-96
Sr.	06:09	Nick Leonard, Jr.	08-03-98
Op.	12:00	Larry Coslick	08-02-96
Ornithopter			
Jr.	04:28	Scott Robbins	07-23-93
Sr.	09:02	Don Slusarczyk	07-03-88
Op.	21:44	Roy White	09-02-95
Autogiro			
Jr.	02:19	Dave Lindley	07-31-78
Sr.	12:11	Don Slusarczyk	09-01-90
Op.	16:50	Ronald Ganser	09-05-98
HLG			
Jr.	02:07.2	Steve Wittman	01-27-74
Sr.	02:39.44	Charles Gagliano	09-05-88
Op.	02:58.6	Ron Wittman	02-18-73
ROG Stick			
Jr.	12:47	Robert Skrjanc	05-16-82
Sr.	15:51	Mark Drela	09-18-77
Op.	24:51	Larry Coslick	07-05-98
Standard Class Catapult Glider			
Jr.	01:29.5	Jason Gomes	05-15-99
Sr.	01:50	Christopher Sydor	09-03-94
Op.	03:25.4	Robert De Shields	02-02-97
Unlimited Class Catapult Glider			
Jr.	01:26.5	Jason Gomes	05-15-99
Sr.	01:55.5	Christopher Sydor	09-04-94
Op.	04:11.9	Stan Buddenbohm	10-04-98
Mini Stick			
Jr.	8:51	Stacey Pelrang	05-16-98
Sr.	12:32	Rob Eberle	05-27-96
Op.	14:28	Andrew Tagliafico	08-10-96

OUTDOOR FREE FLIGHT

Age	Min/Sec.	Held By	Date Set
Cargo			
Jr.	55:07	Darryl Stevens	07-10-77
Sr.	25:00	Melanie Sanford	07-02-88
Op.	100:21	Roman Ramirez	09-19-82
Coupe d'Hiver			
Jr.	11:54	Gregg Ferrer	08-26-75
Sr.	24:49	Jason Kendy	03-28-81
Op.	53:03	Robert P. White	03-28-81
P-30			
Jr.	11:01	David Ellis	01-01-95
Sr.	23:00	Don DeLoach	06-23-90
Op.	32:08	Paul Herbst	05-26-90
HL Glider			
Jr.	10:56	Darryl Stevens	02-20-77
Sr.	12:06	John Dowey	09-27-75
Op.	25:50	Bill Moody	10-04-97
A-2 Towline			
Jr.	29:42	Stephen Coussens	03-14-98
Sr.		No record established	
Op.	69:35	Tom Coussens	03-13-94
Wakefield			
Jr.	25:00	Eric Ryan	06-24-79
Sr.	28:01	David Ellis	12-29-99
Op.	59:48	Eric Ryan	02-15-97
FIC Power (FAI)			
Jr.	15:37	J. E. Troutman	10-13-91
Sr.	25:11	James Troutman	01-14-95
Op.	49:50	Ed Keck	03-14-98
FIH A-1 Towline			
Jr.	10:59	David Turgeon	04-29-79
Sr.	16:51	Hugh Sandroni, Jr.	05-25-81
Op.	58:42	Martyn Cowley	03-15-98
FIG Coupe (FAI)			
Jr.	08:28	John Barron	12-31-98
Sr.	05:00	James E. Troutman	07-24-94
Op.	26:48	Fred Guilfoyle	09-19-92
FIJ 1/2A Power (FAI)			
Jr.	14:56	Austin Gunder	06-27-99
Sr.	11:39	James E. Troutman	05-02-93
Op.	31:07	Douglas Galbreath	08-19-95
CO2 Power (Class Small)			
Jr.	05:30	Jeff Wittman	05-30-88
Sr.	25:05	Jeff Wittman	05-29-89
Op.	22:18	Randall Hopkins	05-18-97
CO2 Power (Class Large)			
Jr.		No record established	
Sr.		No record established	
Op.	30:56	John Oian	02-09-97
Catapult Glider			
Jr.	06:03	Colin Evans	07-06-97
Sr.	06:07	Daniel Miller	04-30-95
Op.	14:53	Bill Moody	05-10-96

OUTDOOR FREE FLIGHT CAT. I

Age	Min/Sec	Held By	Date Set
1/2A Gas			
Jr.	40:49	Jon-Mark Carman	05-26-90
Sr.	51:28	Paul Mumma	05-25-80
Op.	73:01	Terry Thorkildsen	05-27-89
1/2A Gas ROW			
Jr.	10:20	Darryl Stevens	11-27-77
Sr.	12:49	Dana White	07-13-75
Op.	11:14	John Drobshoff	07-10-77
A Gas			
Jr.	25:00	Joey Foster	05-28-77
Sr.	47:02	Randy Weiler	05-29-76
Op.	129.25	Terry Thorkildsen	02-26-95
A Gas ROW			
Jr.	07:53	Darryl Stevens	11-27-77
Sr.	11:50	Dana White	07-12-75
Op.	13:44	Richard Myers	08-27-72
B Gas			
Jr.	25:57	Travis Hunter	05-30-83
Sr.	26:52	Bob Scully	03-07-76
Op.	105:00	Terry Kerger	02-25-95
B Gas ROW			
Jr.	20:00	Steve Calhoun	11-16-75
Sr.	08:08	Dana White	07-12-75
Op.	17:03	H. Doering, Jr.	11-23-77
C Gas			
Jr.	35:46	Travis Hunter	05-28-83
Sr.	26:32	Keith Morgan	05-26-79
Op.	100:00	Douglas Galbreath	09-06-92
C Gas ROW			
Jr.		No record established	
Sr.		No record established	
Op.	12:45	Lyman Armstrong	07-27-80
D Gas			
Jr.	12:17	Mike Kelley	11-08-86
Sr.	29:50	Travis Hunter	01-15-84
Op.	69:04	Helen Matthies	03-11-79
D Gas ROW			
Jr.		No record established	
Sr.		No record established	
Op.	05:51	John Drobshoff	07-04-81
Multihill Rubber			
Jr.	25:28	J. Cunnyngham	05-28-77
Sr.	28:10	Jason Kendy	04-19-80
Op.	88:24	Robert P. White	03-11-79
Multihill Rubber ROW			
Jr.	04:46	Darryl Stevens	11-27-77
Sr.	01:22	John Branch	09-19-76
Op.	12:42	Joe Bilgri	08-15-82
Ornithopter			
Jr.	01:01	Chris Scott	04-22-79
Sr.		No record established	
Op.	09:21	Roy White	10-13-85
Autogiro			
Jr.	02:56	Nancy Andrews	08-03-75
Sr.	01:35	Mike Johnson	01-17-76
Op.	09:46	Jean Andrews	05-29-89
Helicopter			
Jr.	13:24	Darryl Stevens	10-29-77
Sr.	07:16	Charles K. Martin	09-14-75
Op.	14:57	Thomas Finch	05-08-60
Electric Power (Cl A)			
Jr.	13:01	Jason Villnave	04-27-86
Sr.	07:20	Allen Porter	09-04-94
Op.	40:04	B. Baron-Rawdon	05-27-85
Electric Power (Cl B)			
Jr.	08:51	Jason Villnave	10-26-86
Sr.	05:31	Allen Porter	09-05-94
Op.	41:31	John Oian	05-26-86

OUTDOOR FREE FLIGHT CAT. II

Age	Min/Sec	Held By	Date Set
1/2A Gas			
Jr.	16:01	Keith Morgan	01-30-77
Sr.	19:30	Kenneth Keegan	04-29-84
Op.	28:38	Terry Thorkildsen	04-01-95
1/2A Gas ROW			
Jr.	4:53	Dana White	09-15-74
Sr.	7:52	Randy Archer	09-19-76
Op.	9:59	Joe W. Dodson	08-11-74
A Gas			
Jr.	21:45	Joey Foster	04-03-77
Sr.	26:46	Parker McQueen	05-24-80
Op.	83:40	Kenneth E. Oliver	09-28-91
A Gas ROW			
Jr.	4:35	Tom Regan	11-04-73
Sr.	6:54	Dana White	07-12-75
Op.	8:03	Jerald Murphy	10-23-83
B Gas			
Jr.	11:37	Travis Hunter	09-25-83
Sr.	19:11	Mark Woodery	09-03-78
Op.	54:00	William Morgan	11-29-81
B Gas ROW			
Jr.	1:29	Timothy Young	07-13-75
Sr.	7:27	Dana White	07-12-75
Op.	7:38	John Drobshoff	08-07-83
C Gas			
Jr.	23:13	Mike Keller	12-07-86
Sr.	20:52	Keith Morgan	11-11-79
Op.	53:13	Terry Kerger	11-08-87
C Gas ROW			
Jr.		No record established	
Sr.		No record established	
Op.	5:08	John Drobshoff	07-05-81
D Gas			
Jr.	22:22	Mike Keller	04-06-86
Sr.	14.28	Travis Hunter	04-29-84
Op.	54.00	Joe Lobbia	02-04-82
D Gas ROW			
Jr.		No record established	
Sr.		No record established	
Op.	4:59	John Drobshoff	07-04-81
Payload			
Jr.	6.39	Steve Wittman	05-30-77
Sr.	7.11	Steve Wittman	05-29-78
Op.	39.00	Edward Eliot	08-29-76
Multihill Rubber			
Jr.	62:13	Randy Scoor	11-05-72
Sr.	30:52	Joseph Kubina	08-05-78
Op.	66:19	Robert White	12-18-76
Multihill Rubber ROW			
Jr.	3:21	Tim Young	09-21-75
Sr.	3:49	Gary Stevens	02-26-78
Op.	16:15	Henry Smith	01-15-00
Ornithopter			
Jr.	8:15	Jolyn Andrews	06-27-82
Sr.		No record established	
Op.	6:38	Roy White	10-21-84
Autogiro			
Jr.	2:38	Jeanine Andrews	06-08-75
Sr.	0:23	Mike Reagan	07-21-74
Op.	5:59	Jean F. Andrews	11-04-90
Helicopter			
Jr.	6:11	Joseph Bonang	05-14-72
Sr.	6:57	Charles K. Martin	09-14-75
Op.	16:56	Stanley Buddenbohm	05-23-98
Electric Power (Cl A)			
Jr.	3:12	Allen J. Porter	09-30-91
Sr.		No record established	
Op.	38:15	Donald L. Hughes	02-03-91
Electric Power (Cl B)			
Jr.		No record established	
Sr.		No record established	
Op.	26:32	William Rienhoff	5-16-93

OUTDOOR FREE FLIGHT CAT. III

Age	Min/Sec	Held By	Date Set
1/2A Gas			
Jr.	07:27	Mike Keller	12-07-86
Sr.	07.52	Jason Greer	08-08-97
Op.	29:49	Robert Johannes	09-19-98
1/2A Gas ROW			
Jr.		No record established	
Sr.		No record established	
Op.	20:01	Jerry Rocha	05-04-96
A Gas			
Jr.	09:33	James Troutman	07-08-90
Sr.	12:20	Mike Keller	05-27-90
Op.	105:00	Ronnie Thompson	07-30-98
A Gas ROW			
Jr.		No record established	
Sr.		No record established	
Op.	05:09	Norman Peterson	04-23-94
B Gas			
Jr.	10:08	Mike Keller	10-18-86
Sr.	11:45	Justin Armbolt	05-18-97
Op.	90:00	Robert P. Johannes	07-22-96
B Gas ROW			
Jr.		No record established	
Sr.		No record established	
Op.	5:30	John Drobshoff	07-05-81
C Gas			
Jr.	7:55	Mike Keller	10-26-86
Sr.	12:15	James P. Lebda	01-27-91
Op.	70:00	Edward Keck	07-29-98
C Gas ROW			
Jr.		No record established	
Sr.		No record established	
Op.	2:39	John Drobshoff	08-15-82
D Gas			
Jr.	11:00	Mike Keller	10-26-86
Sr.	07:19	James E. Troutman	06-29-94
Op.	60:00	Robert Johannes	08-30-98
D Gas ROW			
Jr.		No record established	
Sr.		No record established	
Op.	4:20	John Drobshoff	07-04-81
Payload			
Jr.	5:03	Tony Hutchins	08-09-86
Sr.	3:09	David Crofoot	07-28-97
Op.	7:45	Walter E. Bowers	09-23-95
Multihill Rubber			
Jr.	17:08	Roderick T. Iverger	07-23-98
Sr.	27:56	Roderick T. Iverger	07-06-94
Op.	51:06	Robert Dunham II	07-22-94
Multihill Rubber ROW			
Jr.	2:12	Jason Thorton	11-24-85
Sr		No record established	
Op.	17:15	Henry Smith	05-01-99
Ornithopter			
Jr.	1:11	Jolyn Andrews	08-23-81
Sr.		No record established	
Op.	16:17	Roy White	10-13-85
Autogiro			
Jr.	1:43	Jolyn Andrews	07-23-78
Sr.		No record established	
Op.	5:50	Jean Andrews	09-14-97
Helicopter			
Jr.	5:31.9	Stephen Barbeau	07-14-99
Sr.	1:57	Don DeLoach	05-18-91
Op.	11:38	Stan Buddenbohm	06-19-94
Electric Power A			
Jr.	4:17	David Crofoot	06-30-96
Sr.	5:52	Melanie Sanford	09-03-88
Op.	28:46	Donald Hughes	07-10-94
Electric Power B			
Jr.		No record established	
Sr.	7:14	David Crofoot	07-30-98
Op.	24:00	William Ruddorf	09-01-93
Muffett			
Jr.		No record established	
Sr.		No record established	
Op.	43:00	Robert Bienemann	07-22-96

CONTROL LINE

Age	MPH	Held By	Date Set
1/2A Speed			
Jr.	146.72	Bobby Fogg III	10-09-94
Sr.	143.61	Bobby Fogg III	04-02-95
Op.	156.42	R. Fogg/C Alois/ Brown/Shahin	12-18-94
A Speed			
Jr.	160.51	Bobby Fogg	09-04-94
Sr.	162.39	Bobby Fogg III	04-02-95
Op.	191.21	Tomas Brown Sr.	05-16-99
B Speed			
Jr.	166.75	Bobby Fogg	12-11-94
Sr.	163.42	Bobby Fogg III	10-12-96
Op.	182.67	Morris/Palec/ Mathison	04-26-98
D Speed			
Jr.		No record established	
Sr.		No record established	
Op.	199.92	Team Fogg/Brown	12-04-99
1/2A Profile Proto			
Jr.	103.76	Bobby Fogg	12-13-92
Sr.	104.73	Bobby Fogg III	07-14-97
Op.	113.45	Charles Legg	09-10-99
.21 Sport Speed			
Jr.	143.83	Peter Brown	10-04-93
Sr.	145.93	Peter Brown	07-16-97
Op.	158.39	R. Fogg/G. Brown	12-06-98
Formula .40 Speed			
Jr.		No record established	
Sr.	146.16	Mike Wisniewski	07-11-96
Op.	161.87	James Rhoades	12-06-98
Jet			
Jr.		No record established	
Sr.	123.41	Howell Pugh	09.02.95
Op.	156.41	Fiske/Bailey/Perkins	07-16-99
F2A (FAI)			
Jr.	147.12	Krystal King	09-18-99
Sr.	174.36	Bobby Fogg III	09-24-95
Op.	183.52	William Naemura	09-18-99
Rat Racing			
Jr.		No record established	
Sr		No record established	
Op.	2:19.67	Team Fogg/ Shahin (70 Lap)	07-28-94
	4:50.83	Mike Shahin (140 Lap)	07-13-95
Age	**Min/Sec**	**Held By**	**Date Set**
Slow Rat Racing			
Jr.	8:29.3	Scott Matsor (140 Lap)	07-12-99
Sr.	4:29.63	Howell Pugh (70 Lap)	07-20-98
Op.	5:24.945	Mike Greb (140 lap	07-19-90
	2:36.31	R. Ogze(70 Lap)	07-18-91
1/2A Mouse Race I			
Jr.	2:37.57	Scott Matsor (50 lap)	07-15-99
	5:17.68	Scott Matsor (100 lap)	07-15-99
Sr.	2:44.68	David Rolley Jr (50 lap)	07-15-99
	5:20.11	D.J. Parr (100 lap)	07-16-98

AMA National Records

As of April, 2000

Op.	2:18.16	Paul Gbeault (50 lap)	07-17-91
Op.	4:22.00	Paul Gbeault' Todd Ryan (100 Lap)	07-15-99

Scale Racing

Jr.	2:50.65	Bobby Figg III (70 lap)	07-16-91
	6:08.55	Bobby Figg III (140 lap)	06-25-92
Sr.	5:40.05	Bobby Figg III (140 lap)	07-11-95
Op.	2:39.38	Team Willoughby Oge (70 lap)	07-15-97
	5:33.04	Robert Fogg (140 lap)	07-16-91

F2C Team Race (FAI)

Jr.		No record established	
Sr.		No record established	
Op	3:18	Lambert/Ballad	07-24-96
	6:57.36	Lambert/Ballad (200 lap)	07-15-98

Endurance

Jr.	0:48:12	Mark E. Williams	10-06-90
Sr.	0:25:41	Mark Williams	11-27-94
Op.	2:04.34	James Habele	03-17-85

Age	MPH	Held By	Date Set
Carrier Class I			
Jr.	386.0	Andy Westerheim	10-19-97
Sr.	363.55	D. Silversmith	07-06-86
Op.	471.6	William Bischoff	02-20-00
Carrier Class II			
Jr.	366.77	D. Silversmith	10-13-85
Sr.	361.19	D. Silversmith	07-27-86
Op.	493.3	William Bischoff	02-20-00
Profile Carrier			
Jr.	279.50	Andy Westerheim	08-31-97
Sr.	341.1	Andy Westerheim	02-20-00
Op.	386.43	Carlos Alcoz	10-08-88
Electric Speed Class A			
Jr.		No record established	
Sr.	64.35	Howell A. Pugh	06-20-92
Op.	90.42	H.Doering Jr.	10-10-93
Electric Speed Class B			
Jr.		No record established	
Sr.		No record established	
Op.	119.63	William G. Stewart	06-05-93

PYLON RACING

Age	Time	Held By	Date Set
Quarter Midget			
Jr.	1:03.62	Matthew Van Buren (Long Course)	09-05-93
Sr.	1:04.90	Henson Bartle (Long Course)	10-09-98
Op.	:00.02	Craig Gruntkemeyer (Long Course)	09-11-99
	1:03.13	Santiago Pavarati (Short Course)	10-22-94
F3D			
Jr.	1:08.69	Matthew Van Buren	11-15-98
Sr.		No record established	
Op.	1:03.31	Richard Verano	11-11-94
Quickie 500			
Jr.	1:10.43	Bucky Miller (Short Course)	06-13-92
	1:13.19	Mathew Van Buren (Long Course)	05-24-98
Sr.	1:01.36	David Wright (Short Course)	07-10-94
	1:11.16	Seth Tomblin (Long Course)	10-06-96
Op.	0:56.49	Gordon Hyde (Short Course)	05-29-94
	1:03.98	Gordon Hyde (Lg Course)	01-15-00
Formula I			
Jr.	1:10.81	Mathew Van Buren	08-18-96
Sr.	1:07.94	Henson Bartle	10-09-98
Op.	1:03.16	Richard Verano	03-28-92

RC SOARING SLOPE DURATION

Age	H/M/S	Held By	Date Set
Class A			
Jr.	4:02.49	Matthew Collier	5-15-88
Sr.	2:58.09	Dieter Rozek	7-25-87
Op.	12::28:20	Alvin Battad	5-23-98
Class B			
Jr.	4:02.49	Matthew Collier	5-15-88
Sr.	6:01.13	Christopher Ritter	5-31-93
Op.	12:.08.04	Dale E. Collier	7-17-88
Class C			
Jr.	4:02.49	Matthew Collier	5-15-88
Sr.	5:01:45	Ken Mercuda	5-31-93
Op.	12::33.57	Jess Walls	5-05-92
Class D			
Jr.	4:02.49	Matthew Collier	5-15-88
Sr.	2:58.09	Dieter Rozek	7-25-87
Op.	12::08:04	Dale E. Collier	7-17-88

THERMAL DURATION

Age	H/M/S	Held By	Date Set
Class A			
Jr.	0::30:27	Matthew Andren	6-12-93
Sr.	0::50:34	Andy Schafer	8-27-94
Op.	02::08:39	William Hoelcher	9-13-97
Class B			
Jr.	0::41:40	Matthew Andren	6-19-93
Sr.	1::27:04	Charles Vergo	5-31-92
Op.	5::00:55	Jerry Kminock	8-23-81
Class C			
Jr.	0::43:49	Matthew Andren	6-19-93
Sr.	1::54:09	Charles Vergo	6-14-92
Op.	8::03:00	Jay Soren	5-30-82
Class D			
Jr.	1::18:05	Christopher Ritter	5-11-91
Sr.	1::23:14	Rodney Cooper	5-9-92
Op.	9::47:00	Keith Kindrick	5-30-82

DECLARED DISTANCE

Age	Miles	Held By	Date Set
Class A			
Jr.	3.18	Christopher Ritter	5-4-91
Sr.	2.86	Rodney A. Cooper	5-4-91
Op.	4.19	Gary Bogel	6-10-95
Class B			
Jr.	4.75	Christopher Ritter	4-7-91
Sr.	5.58	Christopher Ritter	5-16-92
Op.	14.76	Jerry Kminock	5-30-81
Class C			
Jr.	4.78	Christopher Ritter	5-24-91
Sr.	4.82	Kenneth Merenda	5-16-92
Op.	38.76	Jerry Kminock	5-30-82
Class D			
Jr.	44.63	Brian Isenhart	9-3-84
Sr.	16.95	Alex Bower	5-22-81
Op.	140.67	Joseph M. Watts	5-28-88

OPEN DISTANCES

Age	Miles	Held By	Date Set
Class A			
Jr.	4.32	Christopher Ritter	4-7-91
Sr.	3.69	Rodney A. Cooper	5-4-91
Op.	6.60	Paul F. Wilson	7-7-85
Class B			
Jr.	4.75	Christopher Ritter	4-07-91
Sr.	5.58	Christopher Ritter	5-16-92
Op.	17.475	Jack R. Hiner	5-27-89
Class C			
Jr.	12.3	Brian Isenhart	5-27-84
Sr.	9.90	Alex Bower	5-30-81
Op.	38.76	Jerry Kminock	5-30-82
Class D			
Jr.	44.63	Brian Isenhart	09-3-84
Sr.	16.95	Alex Bower	5-22-81
Op.	140.67	Joseph M. Watts	5-28-88

CLOSED COURSE DISTANCE

Age	Km.	Held By	Date Set
Class A			
Jr.	32.4	George Rodriguez	10-17-86
Sr.	69.80	Dieter Rozek	07-25-87
Op.	129.4	Arlie Stoner	06-25-89
Class B			
Jr.	57.0	Christopher Ritter	5-27-91
Sr.	69.80	Dieter Rozek	7-25-87
Op.	248.00	Dale E. Collier	7-17-88
Class C			
Jr.	57.0	Christopher Ritter	5-27-91
Sr.	69.80	Dieter Rozek	7-25-87
Op.	248.00	Dale E. Collier	7-17-88
Class D			
Jr.	57.0	Christopher Ritter	5-27-91
Sr.	69.80	Dieter Rozek	7-25-87
Op.	248.00	Dale E. Collier	7-17-88

ALTITUDE

Age	Feet	Held By	Date Set
Class A			
Jr.	1,887.5	Matthew Collier	05-7-89
Sr.		No record established	
Op.	1,812.8	Dale E. Collier	05-7-89
Class B			
Jr.	1,887.5	Matthew Collier	05-7-89
Sr.	1,993	Alex Bower	10-4-84
Op.	3,100	Jack R. Hiner	9-14-85
Class C			
Jr.	309.3	Christopher Ritter	01-18-87
Sr.	3,045	Norman Timbs	10-04-81
Op.	3,600	Jack Hiner	07-27-85
Class D			
Jr.	4,010	Scott Christian	7-29-84
Sr.	3,045	Norman Timbs	10-4-81
Op.	6,025	Jack Hiner	6-11-82

SPEED

Age	MPH	Held By	Date Set
Class A			
Jr.	49.22	Christopher Ritter	5-18-91
Sr.	53.014	Christopher Ritter	5-09-92
Op.	45.747	Kurt Cranford	5-31-92
Class B			
Jr.	49.22	Christopher Ritter	5-18-91
Sr.	47.006	Christopher Ritter	5-31-92
Op.	75.61	John Wyss	9-15-91
Class C			
Jr.	49.22	Christopher Ritter	5-18-91
Sr.	51.057	Christopher Ritter	5-9-92
Op.	75.61	John Wyss	9-15-91
Class D			
Jr.	49.22	Christopher Ritter	5-18-91
Sr.	57.23	Alex Bower	4-10-83
Op.	86.37	John H. Sasson Jr.	9-15-91

RC ELECTRIC

Age	M/S	Held By	Date Set
RC Class A Sailplane (UMR)			
Jr.		No record established	
Sr.		No record established	
Op	22:23	William Jenkins	08-24-99
RC Class A Sailplane (LMR)			
Jr.		No record established	
Sr.		No record established	
Op	16:32	William Jenkins	08-24-99
RC Class B Sailplane (UMR)			
Jr.		No record established	
Sr.		No record established	
Op	22:58	William Jenkins	01-24-99
RC Class B Sailplane (LMR)			
Jr.		No record established	
Sr.		No record established	
Op	28:33	William Jenkins	01-24-99
Electric R/C Duration			
Jr.		No Record Established	
Sr.		No Record Established	
Op	2:34:39	Bob Wilder	05/12/98

Key Dates

(Events attended by AMA HQ staff and/or officers)

May 31 - June 4
Indoor National Aeromodeling Championships
Johnson City TN

July 7 - August 3
Outdoor National Aeromodeling Championships
Muncie IN



Please Help Support the U.S.A. FAI Control Line and Radio Control Scale Teams in their effort to win in the 2000 F4B/F4C/F4C Large Scale World Championships.

FAI SCALE WORLD CHAMPIONSHIPS
INTERLAKEN, SWITZERLAND
AUGUST 20-26, 2000

Purchase Team Pin (3/4 inch Dia. Red, White & Blue with Gold Lettering) as shown.

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General Contest Board Initial Vote	IN CL FF SC ELC RCA RCH RCR SO SEB	Indoor Contest Board Control Line Board Free Flight Contest Board Scale Contest Board Electric Contest Board Radio Control Aerobatics Contest Board Radio Con trol Helicopter Contes Board Radio Control Racing Contest Board Radio Control Soaring Contest Board Special Events Contest Board

Free Flight Contest Board Initial Vote

Y = Yes P = Passed
N = No F = Failed
1 = Most Preferable
4 = Least Preferable

Number	Proposal Description	I Arthur Ellis Guilford CT	II Bradley Bane Lyndonville NY	III Rudy Kluiber Lakewood OH	IV James Bocckinfuso Moneta VA	V Bonny Jenkins Memphis TN	VI Chris Matsuno St. Louis MO	VII William Shailor Royal Oak MI	VIII Russell Snyder Universal City TX	IX Jerald Murphy Amstelveen, The Netherlands	X Doug Galbreath Davis CA	XI John Crosetto Bellevue WA	Pass/Fail
FF02-1	p 11, pg 3, Allow the AMA license number to be affixed to the upper side of the right-hand or left-hand main lifting surface	Y	Y	Y	Y	Y	Y	Y	N	N	Y	Y	P
FF02-2	Event 124, p 15, pg 1.3, Change the rubber specifications to use a lubricated motor instead of a "dry" motor when checking the maximum weight	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	P
FF02-3	Events 101,102,103,104,105,152,155, p 12, pg 8, Increase the flyoff max by one minute for each successive flight	Y	Y	Y	Y	N	Y	Y	Y	Y	Y	N	P
FF02-5	Change the word "attempt" to "unofficial flight" under various sections referring to Scoring of Flights	Y	Y	Y	N	Y	Y	N	Y	Y	Y	Y	P
FF02-7	Event 142, p 17, pg 4.1, Removes restrictions from definition of the hand-held catapult	Y	N	Y	N	N	Y	Y	Y	Y	Y	Y	P
FF02-9	Rubber events, p 14, pg 4, Adds certain events to section listings	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	P
FF02-11	Power & Rubber events increased to 9 categories based on size of flying sites; times increase by 30 sec. increments between categories	Y	N	N	N	N	N	N	N	N	N	N	F
FF02-12	Rubber events, p 14, pg 4, Changes flight durations of first 3 official flights suited to size of the site	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	N	P
FF02-13	Big E, p 15, Makes event "official" event, no longer "provisional"	Y	N	Y	N	Y	Y	Y	Y	N	Y	Y	P
FF02-14	CO2 Power, p 19, Consolidation of small and large class events into one with reduced fuel allotment and new flyoff criteria.	Y	Y	Y	Y	Y	Y	Y	Y	N	Y	Y	P

Free Flight continued

Number	Proposal Description	I	II	III	IV	V	VI	VII	VIII	IX	X	XI	Pass/Fail
FF02-4	Creat new event called "Sport Power" for powered models with fixed flying surfaces in the image of the current AMA Gas rules	2	2	2	3	1	3	3	2	1	1	2	(22)
FF02-8	Events 101,102,103,104,105,152, 155, p 12, Divide events into 2 categories, then divide these categories into classes	3	3	3	2	3	2	1	3	3	3	3	(29)
FF02-10	Events 101,102,103,104,105, p 12, pg 3, Establishes new class by redefining current events into 2 divisions	1	1	1	1	2	1	2	1	2	2	1	(15) P
None of the above		4	4	4	4	4	4	4	4	4	4	4	(44)

Indoor Contest Board Initial Vote

Y = Yes P = Passed
N = No F = Failed

Number	Proposal Description	I Raymond Harlan Wayland MA	II Douglas Barber Maple Shade NJ	III Walter Van Gorder Cincinnati OH	IV Don Srull McLean VA	V John Martin Coconut Grove Fl	VI Lawrence Coslick St. Louis MO	VII Richard Doig Oxford MI	VIII Bud Tenny Richardson IX	IX Stan Chilton Wichita KS	X Clarence Mather Bishop CA	XI Andrew Tagliafico Portland OR	Pass/Fail
IND02-1	Event 206, p 23, pg 19.2.1/19.2.12, Removes covering restriction	Y	N	N	N	Y	N	N	N	Y	Y	N	F
IND02-2	Event 202, p 22, pg 15.1, Removes covering restriction	Y	N	N	N	Y	N	N	N	Y	Y	N	F
IND02-3	Adds Electric power models	Y	Y	Y	N	Y	N	Y	Y	Y	N	Y	P

Control Line Contest Board Initial Vote

Y = Yes P = Passed
N = No F = Failed

Number	Proposal Description	I Richard Wolsey North Reading MA	II Thomas Hampshire Belvidere NJ	III Laird Jackson Philadelphia PA	IV Wayne Foster Winston-Salem NC	V Dave Hemstrought Moncks Corner SC	VI Charles Robbert Lexington KY	VII Marcus Warwashana Whitmore Lake MI	VIII Richard Perry Albuquerque NM	IX Michael Tallman Wichita KS	X No Representative	XI John Thompson Eugene OR	Pass/Fail
CL02-1	Event 329, p 64, pg 2, Remove airframe restrictions	Y	N	N	N	DNV	N	N	Y	N	DNV	N	F
CL02-2	Event 321, p 46/47, pg 3.3.1, Increase engine size from .3600 cubic inches to .3661 cubic inches	Y	Y	Y	Y	DNV	Y	Y	Y	Y	DNV	Y	P
CL02-3	Event 328, p 61, pg 3.3, Raises speed limit below which shutoff devices are not required from the current 75mph to 80mph	DNV	Y	N	Y	Y	Y	Y	Y	Y	DNV	N	P
CL02-4	Event 328, p 61, pg 3.3, Deletes references to 75mph requiring a fuel shut off	DNV	N	N	N	N	N	N	Y	N	DNV	N	F
CL02-5	Event 328, p 65, Delete fuel shut off requirment	DNV	N	N	N	N	N	N	N	N	DNV	N	F

RC Aerobatics Contest Board Initial Vote

Y = Yes P = Passed
N = No F = Failed

Number	Proposal Description	I L S Melville Bridgeport CT	II John Ron Lockhart Absecon NJ	III Geoffrey Combs Canal Winchester OH	IV Thomas Miller Cornelius NC	V John Fuqua Crestville FL	VI CW Reed Raytown MO	VII David von Linsowe Mount Morris MI	VIII William Thomas Bartlesville OK	IX W J Mowrey Kinsley KS	X Derek Koopowitz Benicia CA	XI Richard Allison Issaquah WA	Pass/Fail
RCA02-1	p 69, pg 8.1.2, Clarifies reasons for reclassification to a lower class	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	P
RCA02-2	p 74, pg D, Clarifies that the description of a maneuver is always the determining factor over the name of the maneuver	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	P
RCA02-3	p 79, Landing, Delete reference to landing in nose-high attitude	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	P
RCA02-4	p 75, Loops, Establishes loop judging criteria for maneuvers with mulitple loop segments	N	N	N	N	Y	Y	N	N	N	N	N	F
RCA02-5	p 77, Cobra Roll with Half Rolls Up and Down, Creates a consilidated description for all Cobra maneuvers	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	P
RCA02-6	p 77, Double Immelmann and Double Immelmann with Full Rolls, Replaces descriptions with a consolidated description	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	P
RCA02-7	p 74, D., Delete first sentence of second paragraph	N	Y	Y	N	Y	Y	Y	Y	Y	Y	Y	P
RCA02-8	p 81, Spin, any number of rotations, Upright or Inverted, Replace description	Y	Y	Y	N	Y	Y	Y	Y	Y	Y	Y	P
RCA02-9	p 71, pg 15, Replace the existing Sportsman class maneuver schedule with new schedule	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	P
RCA02-10	p 76, Revise Snap Roll description to clarify the maneuver	N	Y	N	N	Y	Y	N	Y	Y	Y	Y	P
RCA02-11	p 71, Add pg 14.8 to add the option of flying Sportsman Maneuver schedule twice in each flight	Y	Y	Y	Y	Y	N	Y	Y	N	N	Y	P
RCA02-12	p 68, pg 4.4, Delete pg and replace with more specific information on control functions	Y	Y	N	Y	Y	Y	N	Y	Y	Y	Y	P
RCA02-13	p 71, pg 14.6, Allows helper to call box entries and exits without asking judges permission	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	P
RCA02-14	p 72, pg 18, Replaces existing Masters class maneuver schedule with new schedule	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	N	P
RCA02-15	p 71, pg 17, Replaces existing Advanced class maneuver schedule with new schedule	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	N	P
RCA02-16	p 71, pg 16, Replaces existing Intermediate class maneuver schedule with new schedule	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	N	P
RCA02-17	p 84, pg 1, More clearly defines the objective	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	P
RCA02-18	p 84, pg 3, Removes and replaces to more clearly define the general needs	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	P
RCA02-19	p 84, pg 3, Removes and replaces to more clearly define open events	Y	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	P

RC Aerobatics continued

Number	Proposal Description	I	II	III	IV	V	VI	VII	VIII	IX	X	XI	Pass/Fail
RCA02-20	p 84, pg 4, Removes and replaces to more clearly define specifications	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	P
RCA02-21	p 84, pg 5, Removes and replaces to more clearly define proof	Y	N	Y	Y	Y	N	Y	Y	Y	Y	Y	P
RCA02-22	p 84, pg 6, Removes and replaces to more clearly define achievement awards	Y	Y	Y	N	Y	Y	Y	Y	Y	Y	Y	P
RCA02-23	p 84, pg 7, Removes and replaces ro more clearly define material and workmanship	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	P
RCA02-24	p 84, pg 8, Removes and replaces to more clearly define competition classes	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	P
RCA02-25	p 85, pg 9, Removes and replaces to more clearly define contestant classification	Y	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	P
RCA02-26	p 85, pg 10, Removes and replaces to more clearly define official flights	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	P
RCA02-27	p 85, pg 11, Removes and replaces to more clearly define number of flights	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	P
RCA02-28	pg 85, pg 12, Removes and replaces to more clearly define aerobatics box	Y	Y	Y	Y	Y	N	Y	Y	Y	Y	Y	P
RCA02-29	p 85, pg 13, Removes and replaces to more clearly define time limits	Y	Y	Y	Y	Y	N	Y	Y	Y	Y	Y	P
RCA02-30	p 85, pg 14, Removes and replaces to more clearly define points system	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	P
RCA02-31	p 85, pg 15, Removes and replaces to more clearly define determining placement	Y	Y	Y	Y	Y	N	Y	Y	Y	N	Y	P
RCA02-32	p 85, pg 16, Removes and replaces to more clearly define flight pattern	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	P
RCA02-33	p 86, pg 17, Removes and replaces to more clearly define flight pattern	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	P
RCA02-34	p 86,CD Guide, Remove entire section; guide available from IMAC	N	N	Y	Y	Y	Y	Y	Y	N	Y	Y	P
RCA02-35	p 87, IMAC Flying and Judging School, Remove entire section; manual available from IMAC	N	N	Y	Y	Y	N	Y	Y	N	Y	N	F

RC Racing Contest Board Initial Vote

Y = Yes P = Passed
N = No F = Failed

Number	Proposal Description	I Pete Reed Avon CT	II Ernest Nikodem Lockport NY	III Thomas Scott Cincinnati OH	IV Richard Moreland Edgewater MD	V Gail Jacobson Atlanta GA	VI Daniel Kane Chicago IL	VII Steve Metzger Coloma MI	VIII M L Helsel Round Rock TX	IX Duane Gall Denver CO	X James Allen Mesa AZ	XI Thomas Strom Seattle WA	Pass/Fail
RCR02-1	p 98, pg 12,422, Add definition to clearly define "removable cowl"	Y	N	Y	Y	Y	N	Y	Y	Y	Y	Y	P
RCR02-2	p 101,Optional two pylon course, Changes working of rule book to coincide with working in AMA Safety Code	Y	Y	Y	Y	Y	N	Y	N	Y	Y	Y	P

RC Racing continued

Number	Proposal Description	I	II	III	IV	V	VI	VII	VIII	IX	X	XI	Pass/Fail
RCR02-3	p 98, pg 10, Event 422, Change to allow scale kinds of propellors	N	N	N	Y	Y	N	Y	Y	Y	Y	N	F
RCR02-4	p 94, pg 2,General, Add paragraph to prohibit non-collapsible "rubber duck" transmitter antennas	Y	N	N	Y	Y	N	Y	Y	Y	Y	N	P
RCR02-5	p 99, pg 13,Wings,Event 422, Change to outlaw "pinched" wings and require "straight line taper" of wings	Y	N	N	Y	Y	N	Y	Y	Y	Y	N	P
RCR02-6	p 98, pg 7, Mufflers and Exhaust Extractions; Outlaw tune mufflers in Q500	Y	Y	N	Y	Y	N	Y	Y	Y	Y	N	P
RCR02-7	pg 98, pg 7, Mufflers and Exhaust Extractions; Outlaw tuned mufflers in Q40	Y	Y	N	Y	Y	N	Y	N	Y	N	N	F
RCR02-8	Delete Formula I -Event 421- from rulebook	Y	N	Y	Y	Y	Y	Y	N	Y	Y	Y	P
RCR02-9	p 98, pg 10, Propeller, Event 422, Allow A.P.C. propellers–add 8 3/4 " minimum propeller	N	Y	N	Y	Y	N	Y	Y	Y	Y	N	P
RCR02-10	Various sections–Add material from NMPRA guide to AMA rulebook	Y	Y	N	Y	Y	Y	Y	Y	Y	Y	Y	P
RCR02-11	Provide alternate scoring method for all pylon events	Y	Y	N	Y	Y	N	Y	Y	Y	Y	N	P

RC Soaring Contest Board Initial Vote

Y = Yes P = Passed
N = No F = Failed

Number	Proposal Description	I Fritz Bien Concord MA	II Roman Paryz Lancaster NY	III Eugene Shelkey Scottdale PA	IV Douglas Barry Glen Allen VA	V Charles Anderson Tullahoma TN	VI Richard Burnoski Bolingbrook IL	VII Allan Scidmore Madison WI	VIII Barry Kennedy Grand Prairie TX	IX Byron Blakeslee Littleton CO	X Randy Spencer Redondo Beach CA	XI David Johnson Vancouver WA	Pass/Fail
SO02-1	Adds new class of sailplanes called RES that utilizes only rudder, elevator & spoilers	Y	Y	Y	Y	Y	Y	Y	N	Y	Y	Y	P

Scale Contest Board Initial Vote

Y = Yes P = Passed
N = No F = Failed

Number	Proposal Description	I Irvin Searl Nashua NH	II Donald Typond Warwick NY	III William Carper Jackson OH	IV Robert Karlsson Middletown DE	V David Platt Palm Bay FL	VI John Guenther Borden IN	VII Claude McCullough Montezuma IA	VIII Ernest Harwood Arlington TX	IX No Representative	X Cecil Walters Scottsdale AZ	XI Jerry Holcomb Vancouver WA	Pass/Fail
SC02-1	Adds new class of CL Scale; Control Line Designer Scale	Y	Y	Y	Y	Y	Y	Y	Y	X	Y	Y	P
SC02-2	p 150, pg 4.4.1, Simplifies working and intent of scale operations in flight to recognize when optimum points are given	Y	Y	Y	Y	N	N	Y	Y	X	Y	N	P

Scale continued

Number	Proposal Description	I	II	III	IV	V	VI	VII	VIII	IX	X	XI	Pass/Fail
SC02-3	p 151, pg 4.2.1, Deletes last sentence in "Errors" section regarding the description of giving a zero score	N	Y	Y	Y	N	N	Y	Y	X	Y	Y	P
SC02-4	p 138 & 146, pg 6, Add 6.1 to normalize static scores for CL & RC Sport Scale	Y	N	Y	N	N	Y	N	N	X	Y	N	F
SC02-5	p 128, pg 4, Add 4.2 to add noise limit to RC & CL scale events	N	N	Y	Y	N	Y	N	Y	X	Y	Y	P
SC02-6	p 135, Delete event 508	N	N	Y	N	N	Y	Y	N	X	Y	N	F
SC0-27	Provides a common worksheet for static judging for CL & RC Sport Scale	N	N	Y	N	N	Y	N	Y	X	Y	N	F
SC02-8	p 141, event 521, Add to paragraph, No score reduction for lact of retracts of profile CL scale models	Y	N	Y	Y	Y	Y	Y	Y	X	Y	N	P
SC02-9	p 144, pg 2.2.7, Change to update engine limits to reflect current airplane and engine realities	Y	Y	Y	Y	Y	Y	Y	Y	X	Y	Y	P
SC02-10	p 147, pg 1, Adds word "construction" to avoid confusion with commericially available three-view drawings	Y	Y	Y	Y	Y	Y	Y	Y	X	Y	Y	P
SC02-11	Events 511, 512, 513, 509, 521, adds to pg 4 to require authenication of three-view corrections	Y	Y	Y	Y	Y	Y	Y	Y	X	Y	Y	P
SC02-12	p 144, pg 3, Changes wording to complete rule	Y	Y	Y	Y	Y	Y	Y	Y	X	Y	Y	P
SC02-13	Adds new event, 523 CL Designer Scale	Y	Y	Y	Y	Y	Y	Y	Y	X	Y	N	P
SC02-14	p 134, Change event 504's name to Free Flight Outdoor Power Scale	Y	Y	Y	Y	Y	Y	Y	Y	X	Y	Y	P
SC02-15	p 157, Revises rules to reflect current thinking and building methods, and to make event flying tasks the main focus	Y	Y	Y	Y	Y	Y	Y	Y	X	Y	N	P

Electric Contest Board Initial Vote

Y = Yes P = Passed
N = No F = Failed

Number	Proposal Description	I Edmund Bassick Fairfield CT	II Larry Sribnick Bellport NY	III Richard Simpson Pittsburg PA	IV Willard Blanchard Hampton VA	V Robert Nelson Lakeland FL	VI Stephen Moskal La Grange Highlands IL	VII Keith Shaw Ann Arbor MI	VIII George Parks Austin TX	IX Edward Sweeney Jr. Colorado Springs CO	X Robert Sliff Santa Ana CA	XI Bernard Cawley Auburn WA	Pass/Fail
ELC02-1	p 164, pg 4.21, Limit battery size to six 50 mAh cells	N	Y	Y	Y	N	Y	Y	Y	Y	Y	N	P
ELC02-2	p 162, pg 4.7, Allows use of "Global Positioning System" coordinates to establish starting and ending points for Distance records	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	P
ELC02-3	p 162, pg 4.7, Allows the ability for nationally recognized records to be set at any sanctioned event	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	P
ELC02-4	Events 609, 610, 611,102, 613, Eliminates the builder of the model rule	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	P

Special Events Contest Board Initial Vote

Y = Yes P = Passed
N = No F = Failed

Number	Proposal Description	Horace Hagen RCH	Thomas Hampshire CL	Eugene Shelkey SO	Williard Blanchard ELC	John Fuqua RCA	Bonny Jenkins FF	David Platt SC	Cliff Telford CBC	Bud Tenny IND	Duane Gall RCR	Pass/Fail
SEB02-1	p 169, Event 704, Replace as Provisional with new rules	Y	Y	N	Y	Y	Y	Y	Y	Y	Y	P
SEB02-2	New event–Open RC Combat	Y	N	Y	Y	Y	Y	Y	Y	Y	Y	P
SEB02-3	p 170, Event 705, modifies and fixes errors without changing intent	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	P
SEB02-4	p 170, Event 705, Changes the definition of a fun fly category to relect a standard set of airframe design limitations	Y	N	Y	Y	Y	Y	Y	Y	Y	Y	P
SEB02-5	p 171, Event 705, Replaces 6.2 to clarify and simplify	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	P
SEB02-6	p 170, Event 705, pg 2, Eliminates the builder of the model rule	Y	Y	Y	Y	Y	Y	Y	N	Y	Y	P
SEB02-7	p 171, Event 705, pg 5, Allows a pilot to hold differing skill level classifications for the two different styles	Y	Y	N	Y	Y	Y	Y	Y	Y	Y	P
SEB02-8	p 172, Event 705, pg 8.3.2, Adds two new tasks; Outside Roops and Climb & Glide	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	P
SEB02-9	p 172, Event 705, pg 8.2, Allows CD to develop new tasks to augment the selection in the rulebook	Y	Y	Y	N	Y	Y	Y	Y	Y	Y	P
SEB02-10	p 172, Event 705, pg 7.2, Allows different methods of totaling scores in the Fun Fly category	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	P

the DREAM can come TRUE

Your Contributions DO Make A Difference

This month we list those who have donated $10 or more in support of the Academy's programs, the National Model Aviation Museum and the Aeromodeling Center. These people have made more than a donation—they have made an investment in the future of aeromodeling.

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We list our supporters monthly. These donations represent amounts processed in the month of March, 2000. If your name is not listed, please write to the Membership Department and include a canceled check. We want to recognize all contributors!

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Contest Calendar

Contest Calendar

Revised 2000 Sanction List

TYPES OF EVENTS
FAI Events marked with .*
OUTDOOR FREE FLIGHT
Category I, II, or III only if event is marked with . . . +

101 1/2A Gas . . . . . .+
102 A Gas . . . . . .+
103 B Gas . . . . . .+
104 C Gas . . . . . .+
105 D Gas . . . . . .+
106 Payload . . . . . .+
107 Cargo
108 Multi/Mi . . . . . .+
121 Big E . . . . . .+
122 Down Unlimited . . . +
124 P-30
125 Ornithopter
126 Autogiro
127 Helicopter
128 Moffett
129 Bostonian . . . . . .+
130 Rubber Speed
140 HL Glider
142 Catapult Glider
150 F1A-A2 Glider . . . . .*
151 F1B Wakefield . . . . .*
152 F1C Power . . . . . .*
153 F1G Coupe d'Hiver .*
154 F1H A1 Glider . . . . .*
155 F1J 1/2A Power . . . .*
156 F1K CO -2 . . . . . .*
157 F1E Slp. Srg. Glider +
160 Electric A . . . . . .+
161 Electric B . . . . . .+
162 Rocket . . . . . .+
163 CO -2
164 Large Co-2

INDOOR FREE FLIGHT
Categories I, II, III, and IV
201 HL Stick
202 Intermediate Stick
203 F1D Rubber . . . . . .*
204 Cabin
205 Manhattan
206 Easy B
207 Pennyplane
208 Limited Pennyplane
209 Helicopter
210 Ornithopter
211 Autogiro
212 HL Glider
213 Kit Plan Scale
214 ROG Stick
215 Bostonian
216 Experimental Autogiro
217 F1L EZB . . . . . .*
218 Std Class Cat. Gldr.
219 Unlimited Class Catapult Glider
220 Mini Stick

CONTROL LINE
301 1/2A Speed
302 A Speed
303 B Speed
304 D Speed
305 1/2A Profile Proto
306 .21 Proto
307 .21 Sport Speed
308 Formula 40
309 Jet
310 F2A Speed . . . . . .*
311 Rat Racing
312 Slow Rat
313 1/2A Mouse-I
314 1/2A Mouse-II
315 1/2A Scale-I
316 1/2A Scale-II
317 Scale Racing
318 F2C Team Race . . . .*
319 Navy Carrier-I
320 Navy Carrier-II
321 Navy Carrier (Profile)
322 Precision Aerobatics
323 Beginner Skill Class
324 Intermediate Skill Class
325 Advanced Skill Class
326 Expert Skill Class
327 F2B Aerobatics . . . .*
328 Combat
329 Slow Combat
330 1/2A Combat
331 F2D Combat . . . . . .*
332 Endurance
333 Dive Bombing & Strafing

RC AEROBATICS
401 Sportsman Pattern
402 Intermediate Pattern
403 Advanced Pattern
404 Masters Pattern
406 F3A Pattern . . . . . .*
411 Scale Aerobatics/Basic
412 Scale Aerobatics/Sportsman
413 Scale Aerobatics/Advanced
414 Scale Aerobatics/Unlimited

RC PYLON RACING
421 Formula I Pylon
422 Q-40 Pylon
423 1/2A Pylon
424 Q-500 Sport
425 Q-15
427 F3D Pylon . . . . . .*
428 Q-500

RC HELICOPTER
431 Class I
432 Class II
433 Class III
434 F3C Helicopter . . . . .*

RC SAILPLANE
441 Therml. Soaring-HL (A)
442 Therml. Soaring-2-Mtr. (B)
443 Therml. Soaring-Std. (C)
444 Therml. Soaring-Unlim. (C)
445 F5B Therml. Soaring .*
446 F3H Cross Country .*
451 Slope Soaring-HL (A)
452 Slope Soaring-2-4/Mtr. (B)
453 Slope Soaring-Std. (C)
454 Slope Soaring-Unlim (D)
455 F3F Slope Soaring . .*
456 F3J Thermal Duration Glider

SCALE
501 Peanut (Outdoor)
503 Flying Rubber (Outdoor)
504 Gas (Outdoor)
505 Peanut (Indoor)
507 Flying Rubber (Indoor)
508 CL AMA Precision
509 CL Sport Scale
510 F4B CL Scale
511 RC Sportsman Spt. Scale
512 RC Expert Sport Scale
513 RC Sportsman/Exp. Comb.
515 RC Designer Scale
516 F4 RC Scale . . . . . .*
517 RC Sport Scale Soaring
518 RC Helicopter
519 FF Indoor Power
520 RC Fun Scale
521 CL Profile
522 RC Team Scale

ELECTRIC
601 F5B RC Soaring . . . .*
602 F5A RC Aerobatics .*
603 F5D RC Pylon . . . . .*
606 Class A-CL Speed
607 Class B-CL Speed
608 CL Prec. Aero.
609 RC Class A Sailplane
610 RC Class A Sailplane (LMR)
611 RC Class B Sailplane
612 RC Class B Sailplane(LMR)
613 RC Class B Sailplane Endur.
614 RC Class A Pylon
615 RC Class B Pylon
616 RC Old-Timer Texaco
617 RC Class A Old-Timer
618 RC Class A Old-Timer (LMR)
619 RC Class B Old-Timer
620 RC Class B Old-Timer (LMR)
621 RC "Oldie Texaco"
622 RC Class A "Oldie"
623 RC Class A "Oldie" (LMR)
624 RC Class B "Oldie"
625 RC CL B "Oldie" (LMR)
626 RC Prec. Aero.
627 Ind. Elec. Dur.
628 Elec. ROW R/C Seaplane

SPECIAL EVENTS
701 AMA Vintage
702 RC Duration
703 Climb and Glide
704 WW II Combat . . . . .*
705 RC Competition Fun Fly

INTERPRETATION OF EVENT LISTINGS: 101-104 means that events numbered 101, 102, 103, and 104 are to be flown separately. (101-104) means that events numbered 101, 102, 103, and 104 are combined. 101, 104 means only events 101 and 104 are flown, and that they are flown separately. (101, 104) means only events 101 and 104 are flown, but that they are combined for competition.

NOTE: To assure quick response, be certain to send a stamped, self-addressed envelope to the listed Contest Director along with your request for information about an event.

The letters in parentheses (A, B, AA, etc.) immediately following the date and location of an event refer to sanction classification, as explained in the AMA rule book. "B" indicates a restriction of entry in some fashion, and the event's contact person should be queried to obtain more details and to possibly avoid misunderstanding or disappointment by the intended participant, particularly if considerable travel may be involved.

(T) indicates a traditional event (one which has occurred for a number of years at the same date and place and with the same sponsor).

Contest Calendar is sorted by date within each state

Flying

JUNE

AK
6/10/00 - 6/11/00 —Palmer, AK (AAA) Last Frontier IMAC/Pattern for 401-406, 411-414, 513(D). Site: Moffitt Field. Joe Ostrom CD, PO Box 756 Girdwood AK 99587 PH:907-783-1232. Sponsor: ALASKA RADIO CONTROL SOCIETY

AL
6/17/00 - 6/18/00 —Cullman, AL (AA) 19th Annual Cullman Pattern Championships for 401-406(JSO). Site: Burdeshaw Field. Stephen Byrum CD, 1326 3rd St SE Cullman AL 35055 PH:256-737-9828. Sponsor: CULLMAN AEROMODELERS

AL
6/24/00 - 6/25/00 —Decatur, AL (AA) 4th River City Scale Shootout for 511, 512, 520, 522(JSO). Site: Club Field. James Ray CD, 1304 Fletcher Ave SW Decatur AL 35601 PH:256-353-1323. We have a 60x600' paved strip & 40x600' grass, with over 100' runoffs on ends. Enjoy southern hospitality. Registration at 8AM, pilots briefing at 9AM. Fun scale flying then - others after static. Sponsor: DMAC

AR
6/02/00 - 6/04/00 —Maumelle, AR (C) S.M.A.L.L. Site: Club Field. Ron Stanfield CD, 26 Oakridge Dr Maumelle AR 72113 PH:501-851-1697. This S.M.A.L.L. meet is open to all RC aircraft of .26 cid or smaller engines. Electrics of 180 watts or less, all CO2, free flight 1/2H or smaller and control line of .35 cid or smaller. E-mail CD at stanfieldr@aol.com. Sponsor: FLYING MODELS MAGAZINE/THE CITY OF MAUMELLE/MAUMELLE SKY TIGERS

AZ
6/18/00 —Sierra Vista, AZ (A) Fun Fly. Site: Club Field. Don Mulligan CD, 931 Cactus Wren Sierra Vista, AZ 85635 PH:520-458-7677. Sponsor: MESQUITE MODELERS

CA
6/03/00 - 6/04/00 —Fresno, CA (B-Restricted) Fresno Silver Cup for 442 and 444(O). Site: Lost Lake Flying Site. Charles Thompson CD, 9798 N Sunnyside Clovis CA 93611 PH:559-322-5928. Two days of thermal soaring in the beautiful San Joaquin Valley. Event limited to pilots 55 years of age or older in 2000. Sponsor: FRESNO SOARING SOCIETY

CA
6/03/00 - 6/04/00 —Poway, CA (AA) International Handlaunch Glider Festival for 441(JSO). Site: TPG Flight Center. Davin Condon CD, 27391 Valderas Mission Viejo CA 92691 PH:949-454-8725. Sponsor: TORREY PINES GULLS

CA
6/03/00 - 6/04/00 —Elk Grove, CA (C) SAM 21 Annual. Site: Schmidt Ranch. Steve Roselli CD, 933 Barbara Ave Mtn View CA 94040 PH:650-969-1721. Sponsor: SAM 21

CA
6/04/00 —Morgan Hill, CA (C) 75 mph CL Combat Contest. Site: Encinal Grammar School. Steve Smith CD, 1525 Seville Dr Morgan Hill CA 95037 PH:408-776-1138. Sponsor: COYOTE VALLEY BELLCRANKERS

CA
6/04/00 —Van Nuys, CA (C) Giant Scale Fly In. Site: Apollo XI. Dave Hendrex CD, 8855 S Wilton Place Los Angeles CA 90047 PH:310-234-2516. Snack stand open. Sponsor: SAN FERNANDO VALLEY GIANT SCALE SQUADRON

CA
6/09/00 - 6/11/00 —Red Bluff, CA (C) Float Fly. Site: Lake Red Bluff. Dan Popoff CD, 2265 Hartnell Ave Redding, CA 96002 PH:530-246-7004. Sponsor: REDDING AREA MINIATURE AIRCRAFT CLUB

Float Fly
June 9, 10, 11, 2000
Lake Red Bluff Recreation Area
• RV Camping
• Banquet Dinner
• R/C Drawings
• Fly Dawn to Dusk
Northern California Regional Float Fly
CD Dan Popoff
530-221-2220 - Fax 221-1522
www.ramac-rc.org

CA
6/09/00 - 6/11/00 —Los Angeles, CA (AA) Q40 - Q500 for 422, 424, 428(0). Site: Woodley Park. Chris Hoyer CD, 21051 Gresham #302 Canoga Park CA 91304 PH:818-709-1551. Sponsor: SAN FERNANDO VALLEY FLYERS

CA
6/10/00 —Carson, CA (A) SULA Monthly for 442 and 444(JSO). Site: Club Field. Browne Goodwin CD, 654 Ashland Ave Santa Monica CA 90405 PH:310-392-5352 e-mail brownecg@aol.com. Sponsor: SOARING UNION OF LOS ANGELES

CA
6/10/00 - 6/11/00 —Sacramento, CA (AAA) Western States Championships 2000 for 101, 102, 103-105, 120, 128, 153, 154, 155(JSO) and 124, 140, 142(J)(SO). Site: Waegell Field. Doug Galbreath CD, 3408 Topsail Pl Davis CA 95616 PH:530-757-6058. Slow open power, 1/2A Nostalgia, ABC Nostalgia. Sponsor: SIERRA EAGLES

CA
6/10/00 - 6/11/00 —S El Monte, CA (A) Pre Nats Tunes Up Speed Meet for 301, 302, 303, 305, 307, 310, 606, 607(JSO), 304, 309(O), 308(SO). Site: Whittier Narrows. Joe Brownlee CD, 12101 Stonegate Ln Garden Grove CA 92845 PH:714-895-1857. All flying will be within the fenced circle. Sponsor: CONTROL LINE SPEED FLYERS OF SOUTHERN CALIFORNIA

CA
6/11/00 —Poway, CA (A) 2 Meter Soaring for 442(O). Site: Club Field. Don Richmond CD, 4415 Caminito Sana #4 San Diego CA 92122 PH:619-968-1710. E-mail drichmond@acl.com. Sponsor: TORREY PINES GULLS

CA
6/17/00 —Sacramento, CA (AA) Pattern At The Base for 401-406(JSO). Site: Mather Air Force Base. Frank Capone CD, 3041 Mortara Cir Placerville CA 95667 PH:530-621-1010. One day 3 round, registration 8AM, flying starts at 10AM because of sun problem. Sponsor: MATHER MODELERS

CA
6/18/00 —Sacramento, CA (C) Air Combat - Echo. Site: Club Field. Jeff Weiss CD, 14 Shady Lake Ct Sacramento CA 95839 PH:916-925-4917. Sponsor: SACRAMENTO AREA MODELERS/AIR-KILL PRODUCTS

CA
6/24/00 —Los Angeles, CA (C) Air Show. Site: Van Nuys Airport. Chris Hoyer CD, 21051 Gresham #302 Canoga Park CA 91304 PH:818-709-1551. Sponsor: SAN FERNANDO VALLEY FLYERS

CA
6/24/00 - 6/25/00 —Van Nuys, CA (AA) 5th Annual Bob Palmer Classic for 323, 324, 325, 326(JSO). Site: Supulveda Basin. Tony Naccarato CD, 2121 N Hollywood Way Burbank CA 91505 PH:818-842-5062. Precision aerobatics contest with old timer, classic, beginner, intermediate, advanced and expert. Sponsor: BLACK SHEEP EXHIBITION SQUADRON

CA
6/24/00 - 6/25/00 —Morgan Hill, CA (AA) Silicon Valley Scale Rally for 511, 512, 520, 522(JSO). Site: Tomcats Field. Jeff Lovitt CD, 4501 Snell Ave 1406 San Jose CA 95136 PH:408-365-9824. Scale Masters Qualification in expert and team scale events. Scale Masters exceptions apply in expert & team. Sponsor: SCCMAS TOMCATS

CA
6/25/00 —S El Monte, CA (C) Aircruiser/AT-6 Fun Race. Site: Whittier Narrows. Mark Crum CD, 3552 Miriam Dr West Covina CA 91791 PH:626-331-7949. Sponsor: SGVRCL

CA
6/25/00 —Los Angeles, CA (C) Air Show. Site: Van Nuys Airport. Chris Hoyer CD, 21051 Gresham #302 Canoga Park CA 91304 PH:818-709-1557. Sponsor: SAN FERNANDO VALLEY FLYERS

CA
6/25/00 —San Diego, CA (AMA Record Trial) Orbiteers Monthly for 101, 102, 103, 104, 124, 142, 153(JSO). Site: Brown Field. Robert Thompson CD, 466 Broadway #31 Chula Vista CA 91910 PH:619-476-1083. Sponsor: SAN DIEGO ORBITEERS

CA
6/25/00 —Chino, CA (C) Fernandez Float Fly. Site: Regional Park. Chris Hickok CD, 3044 N Mountain Ave Claremont CA 91711 PH:909-482-4594. Raffle prizes, good flying from Prado Damm. Call Eusebio Fernandez for more info PH:909-591-5403. Boat retrieval provided with $10 landing fee. Sponsor: AMERICAN MODEL AIRPORT ASSN

CO
6/03/00 - 6/04/00 —Parker, CO (AA) Crosswinds Annual Pattern for 401-406(JSO). Site: Club Field. Larry Falsetta CD, 19165 E Prentice Cir Aurora CO 80015 PH:303-699-2087. No channel 20 or 21. Entry fee $20. No shows refunded, advanced application appreciated. 4 of D, 2 of E. Sponsor: CROSSWINDS RC CLUB

CO
6/03/00 - 6/04/00 —Pueblo, CO (AA) Scale Masters Qualifier for 511, 512(JSO). Site: Club Field. Larry Osborn CD, 106 Baylor Pueblo CO 81005 PH:719-565-0488. Scale Masters Qualifier and scale fly in. Sponsor: SKY CORRAL RC CLUB

CO
6/09/00 - 6/11/00 —Littleton, CO (C-Restricted) Best In The West 2000. Site: Chatfield State Recreation Area. Rick Boucher CD, 7037 Skunk Alley Evergreen CO 80439 PH:303-674-7549. The premier jet event of the next millennium. AMA required, ducted fan/turbine only. Turbine with AMA waiver, no nitro pipes. Additional info contact: CD or Nat Lancaster PH:303-988-2081. Sponsor: JEFCO AEROMODLERS CLUB

CO
6/10/00 —Colorado Springs, CO (B-Restricted) Memorial Cup for 444(O). Site: Club Field. Austin Cleis CD, 8465 Pine Cone Rd Colorado Springs CO 80908 PH:719-495-3177. Restricted to club members only. Sponsor: PIKES PEAK SOARING SOCIETY

CO
6/10/00 —Aurora, CO (C) 5th Annual Alex Pluckrose Memorial Fly In. Site: Club Field. Bill Peters CD, 22310 E Lake Ln Aurora CO 80015 PH:303-680-2011. Ample overnight parking, no hook ups for those staying overnight. Pit toilets, covered picnic area & pilot area, impound for radios. Full menu available at lunch, free coffee & donuts for pilots. $10 landing fee. Channell 20 & 21 restricted. 2 paved runways. Sponsor: MILE HI RC

CO
6/10/00 - 6/11/00 —Frederick, CO (C) Heli Fun Fly. Site: Club Field. Jay McDonald CD, 4963 Cornwall Dr Boulder CO 80301 PH:303-530-1146. Sponsor: LONGMONT AIRCRAFT MODELERS

CO
6/11/00 —Denver, CO (A) June Thermals for 444(JSO). Site: Sod Farm. Bob Rice CD, 1123 S Oakland St Aurora CO 80012 PH:303-745-5629. Sponsor: ROCKY MTN SOARING

CO
6/24/00 —Colorado Springs, CO (A) Summer Solstice for 444(O). Site: Club Field. Austin Cleis CD, 8465 Pine Cone Rd Colorado Springs CO 80908 PH:719-495-3177. Sponsor: PIKES PEAK SOARING SOCIETY

CO
6/25/00 —Denver, CO (A) MMM Monthly for Cat II 101, 102-105, 120, 140-142, 150-152(JSO). Site: Club Field. Roger Maves CD, 84 Mary's Ln Bailey CO 80421 PH:303-838-6387. Above events plus MMM slow open power. Sponsor: MAGNIFICENT MOUNTAIN MEN

CT
6/04/00 —Rocky Hill, CT (AA) SAM 7 Spring OT FF Rally for 124 and 142(JSO). Site: Turf Farm. Donald Osaiza CD, 85 Bogel Rd E Haddam CT 06423 PH:860-873-9556. Pin gas, cab gas, .02 rep, antique, nost gas, rubr stk, rubr cab, rubr sol, OTHLG, OT cat, baby ROG, tom push, OT towl, Jim Allen. Sponsor: SAM 7

CT
6/04/00 —Farmington, CT (A) Central CT Q500 for 424(JSO). Site: Meadow Rd. Pete Reed CD, 49 Anvil Dr Avon CT 06001 PH:860-673-7883. Sponsor: CCRCC

CT
6/10/00 - 6/11/00 —Salem, CT (C) Bob Beringer Memorial Fly In. Site: Club Field. Richard Wilkins CD, 116 - 3 Blood St Lyme CT 06371 PH:860-434-1211. Scale fun fly for all sizes of RC aircraft. Engines must not exceed 96 db. $2 landing fee. Sponsor: RC PROPBUSTERS CLUB

Contest Calendar

CT

6/11/00 —Simsbury, CT (AA) Spring Sailplane Challenge for 442, 443, 444(JSO). Site: Simsbury Farms Rec Complex. Rod Peterson CD, 122 Westland Ave West Hartford CT 06107 PH:860-561-4283. Pilots meeting 9:15AM. Open windowr format using 12v winches with retrievers. Task: int'l duration (T1) with spot landing bonus (T4). SASE for flyer and map. Sponsor: YANKEE SILENT FLIERS ASSN

CT

6/24/00 —Ellington, CT (C) NCRCC Electric Fun Fly. Site: Club Field. Irving Thurrott CD, 21 Pine Knob Circle South Windsor CT 06074 PH:860-644-9040. Registration fee $10. Door prizes. For more information call Jerry Chase at 860-668-1359 or e-mail to gerard.chase@snet.net or visit www.ncrcc.org. Sponsor: NORTHERN CONNECTICUT RADIO CONTROL CLUB

CT

6/24/00 - 6/25/00 —East Hartford, CT (C) United Way Charity Fly In. Site: Rentschler Field. Dennis Thibodeau CD, 170 Cottage Rd Enfield CT 06082-2209 PH:860-749-6985. Charity Fly-In for United Way charities. Site 60 acres with 150x8500' paved runway. Sponsor: EAST HARTFORD EAGLES RC CLUB

CORRECTION

2nd ANNUAL UNITED WAY CHARITY R/C FLY-IN

SPONSORED BY
EAST HARTFORD EAGLES R/C CLUB
PRATT & WHITNEY ENGINE CENTER
A.M.A. SANCTIONED
WARBIRDS, JETS, SCALE, SPORT, IMAA
ALL WELCOME

DATE — JUNE 24 & 25, 2000
RAIN DATE - JULY 8 & 9
TIME — 9AM TO 3PM GATE OPEN 7:30
PLACE — RENTSCHLER FIELD
EAST HARTFORD CT.
FEE — $10.00 ONE DAY $15.00 BOTH

DENNIS THIBODEAU 860 749-6985
DANA RINDGE 860 528-5808
RICK BELL 860 489-3321

ALL FEES DONATED TO UNITED WAY/COMBINED HEALTH CHARITIES

DE

6/17/00 —Kirkwood, DE (A) Delaware RC Fun Scale Saturday for 520(JSO). Site: Lums Pond State Park. Anthony Albence CD, 415 Geddes St Wilmington DE 19805 PH:302-654-8171. Come join us for a day of relaxed fun scale competition. We'll have plenty of great prizes and help for first timers. It's the most fun you'll have for only a $5 entry fee. Sponsor: DELAWARE RC CLUB

FL

6/03/00 —Apopka, FL (C) R.C.A.C.F. 1ST Annual Prop Jet Fly In. Site: Club Field. Wally Zober CD, 2273 Bent Oak Dr Apopka FL 32712 PH:407-880-1298. No ducted fans, no turbines. Any model that is advertised as a prop jet model. No Diamond Durt Deltas. Trophy for best military, best civilian, best combat. Sponsor: REMOTE CONTROL ASSN OF CENTRAL FL

FL

6/10/00 —Pace, FL (A) Pensacola Aeromodelers June Soar In for 442(JSO). Site: OLF. M. H. Duval CD, 1113 Forest Niceville FL PH:856-678-1219. Sponsor: PENSACOLA AEROMODELERS INC

FL

6/10/00 - 6/11/00 —Odessa, FL (A) King Orange Scale for 511, 512, 520(JSO). Site: Club Field. William McCallie CD, 10501 Saco Rd Tampa, FL 33618 PH:813-932-0622. Scale Masters qualifier. Sponsor: WEST PASCO MODEL PILOTS ASSN

FL

6/11/00 —Palm Bay, FL (AMA Record Trial) Record Trials for Cat III 101, 102, 103, 104, 105, 106, 107, 120, 121, 122, 124, 125, 126, 127, 128, 129, 130, 140, 142, 150, 151, 152, 153, 154, 155, 156, 157(JSO). Site: Club Field. Ron Sharpton CD, 1290 Country Rd Daytona Beach, FL PH:904-767-6138. Sponsor: FLORIDA MODELERS ASSN INC

FL

6/11/00 —Pace, FL (A) Pensacola Aeromodelers June Soar In for 444(JSO). Site: Olf. Rae Fritz CD, 5980 Pawnee Dr Pensacola FL 32526 PH:850-944-5121. Sponsor: PENSACOLA AEROMODELERS INC

FL

6/17/00 —Jacksonville, FL (C) Giant Scale Pylon Race. Site: Club Field. C. E. Brooks CD, 23495 Alden Trace Blvd W Jacksonville FL 32246 PH:904-645-3093. Pilots meeting 8:30AM, landing fee $20. Aircraft weight 20 lbs max., 3.2 c.i. max eng size, glow or gas. Sponsor: GATEWAY RC CLUB

FL

6/17/00 - 6/18/00 —Pensacola, FL (AAA) Fiesta Of Five Flags for Cat III 101, 124, 140(J)(SO), 102, 103, 104-105, 120, 122, 128, 142, 151, 152, 153, 154, 155(JSO). Site: Spencer Field. R. W. Junk CD, 984 Williams Ditch Rd Cantonment FL 32533 PH:850-968-9619. Nostalgia ABC, OT pylon B, Commercial rubber, OT rubber small, 020 replica, OT rubber large, Nostalgia 1/2A, OT cabin ABC, OT Pylon C, Pee Wee 30, baby bee 40. Sponsor: PENSACOLA FF TEAM

GA

6/03/00 - 6/04/00 —Cummings, GA (AA) 3rd Annual GMA Pattern Champs for 401, 402, 403, 404, 405(JSO). Site: Club Field. Robert Roe CD, 9535 Fenbrook Ct Alpharetta GA 30022 PH:770-448-3058. Smooth asphalt runway, covered pits, enclosed club house. Trophies through 3rd, sportsman through 5th. Additional contact Richard Ames PH:770-886-0729. Sponsor: GEORGIA MODEL AVIATORS

GA

6/17/00 —Marietta, GA (C) Robin Blythe Electric Fun Fly. Site: Club Field. Malcolm Boartfield CD, 2745 Timberline Rd Marietta GA 30062 PH:404-365-1199. Fun filled day of flying demonstration for electric powered aircraft. Food & drink available. Sponsor: COBB COUNTY RADIO CONTROL MODELERS CLUB/HOBBYTOWN USA/NATIONAL HOBBY SUPPLY

IA

6/03/00 - 6/04/00 —New Hartford, IA (C-Restricted) 2nd Annual Big Bird Fly In. Site: New Hartford International Airport. Robert Nelson CD, 433 Ardmore Waterloo IA 50701 PH:319-233-4771. IMAA spec. airplanes, refreshments available at field, overnight parking. Sponsor: BLACKHAWK RC PILOTS

IA

6/10/00 - 6/11/00 —Ottumwa , IL (C-Restricted) SE Iowa Big Wings Fun Fly. Site: Industrial Airport. Ronald Beasley CD, 13522 120th Ave Ottumwa, IA 52501 PH:515-684-4767. Contact Don Wasson 515 Indian Trail Rd Ottumwa, IA 52501 PH:515-682-8432. RV parking, food & beverages. Landing fee $5 per day. Sponsor: OTTUMWA RADIO CONTROL FLYERS

IA

6/17/00 - 6/18/00 —Montezuma, IA (C) SIG RC Fly In. Site: SIG Field. Chuck Blake CD, 707 15th Ave SW Altoona, IA 50009 PH:515-967-5079. Fun fly type events will be flown. Entry restricted to any SIG kit. Sponsor: DES MOINES MODELAIRES RC CLUB/SIG MANUFACTURING CO

IA

6/24/00 - 6/25/00 —Montezuma, IA (AA) SIG CL Contest for 319, 320, 321, 323, 324, 325, 326(JSO). Site: SIG Field. Mike Gretz CD, PO Box 162 Montezuma IA 50171 PH:515-623-5772. SIG Skyray 35 navy carrier(JSO), SIG Skyray 35 sport race (novice)(O), Old time stunt (J)(S)(O), class stunt (J)(S)(O). Sponsor: SIG MANUFACTURING CO

ID

6/03/00 —Parma, ID (A) Competition Fun Fly for 706(JSO). Site: Airport. Chet Carpenter CD, 7188 Elmore Fruitland ID 83619 PH:208-452-3227. Sponsor: TREASURE VALLEY AEROMODELERS

ID

6/24/00 - 6/25/00 —Athol, ID (C) All Aircraft Fly In. Site: State Park. M Jacobson CD, 651 N Corbin Rd #21 Post Falls, ID 83854 PH:208-773-4222. Plaques for best civilian scale, best military scale, best scale aerobatics, best non-scale sport plane, and pilots choice. Sponsor: FARRAGUT FLYERS

ID

6/24/00 - 6/25/00 —Nampa, ID (AA) ISS 14th Annual Scale Contest for 511, 512, 520, 522(JSO). Site: NMA Field. Mike Ingram CD, 4320 N Locust Grove Meridian ID 83642 PH:208-888-3383. Sponsor: IDAHO SCALE SQUADRON

IL

6/03/00 —Elmwood, IL (C) Strawberry Fly In #8. Site: Sweetcater Park. Walt Avery CD, PO Box 673 Elmwood IL 61529 PH:309-742-8196. Family fun, door prizes, auto & craft shows. Food on square. Details, info, flyer www.bipes.com. Lincolnland Modelers Airshow Team to perform. Sponsor: SPOON RIVER FLYERS

IL

6/03/00 - 6/04/00 —Springfield, IL (C) Land Of Lincoln E-Fly. Site: Club Field. Tim McDonough CD, 127 S Oaklare Rd Springfield IL 62707 PH:217-523-8625. Electric aircraft only. Food & beverages available on site. Event hours 9AM to 5PM Sat, 9AM to 3PM Sun. Sponsor: KNIGHTS OF THE AIR RC CLUB

IL

6/03/00 - 6/04/00 —Lansing, IL (AA) 5th Annual Midwest IMAC Classic for 411, 412, 413, 414(JSO). Thomas Mittler CD, 2213 Deer Run Rd Schererville IN 46375 PH:219-322-3956. Sponsor: THORNCREEK RC CLUB/MIDWEST PRODUCTS

IL

6/04/00 —Rockford, IL (C) Water Fun Fly. Site: I-39 South. William Miller CD, 2223 Silverthorn Dr Rockford, IL 61107 PH:815-397-5432. Sponsor: ROCK VALLEY RC CLUB

IL

6/04/00 —St Charles, IL (C-Restricted) Pylon Race for 424(JSO). Site: Club Field. Mike Kostecki CD, 6613 Illiamna Trail McHenry, IL 60050 PH:630-655-9246. Restricted to OT 40FP. Prop and fuel supplied. $15 entry fee. Lunch available. Sponsor: FOX VALLEY AERO CLUB

IL

6/04/00 —Abingdon, IL (A) 22nd Andy Walsh Soaring Contest for 442 and 444(JSO). Site: High School. Noel Garrett CD, 108 Brookview Ct Abingdon IL 61410 PH:308-462-5858. Sponsor: WESTERN IL SOARING SOCIETY

IL

6/04/00 —Lemont, IL (D) Woodland Aero Model Air Show. Site: Waterfall Glen Model Field. Phil Bintek CD, 7419 Webster St Downers Grove IL 60516 PH:630-852-6831. Spring model air show, flying all types of model aircraft from control line to hi-tech. Sponsor: WOODLAND AERO MODELERS

IL

6/10/00 —Plainfield, IL (A) Fredrickson Memorial Thermal Challenge for 444(JSO). Site: Sod Farm. Tom Kallevang CD, 1315 South Paddock Dr Wheeling IL 60090 PH:847-520-4565. Sponsor: SOAR

IL

6/10/00 - 6/11/00 —Marion, IL (AA) Egyptian RC Championships for 511, 512, 520(JSO). Site: Airport. Lynn Elston CD, 11518 Kevin Ln Carterville IL 62918 PH:618-985-6876. US Scale Masters Qualifier, 1100x300' paved runway directly in front of airport diner inn. E-mail rsjets@midwest.net or web page.members.xoon.com/Perch/rsjets.htm. Sponsor: RS HOBBY

IL

6/11/00 —Rockford, IL (A) 0500 428 Pylon for 428(JSO). Site: Park District, Leroy Webb CD, 5804 Longest Dr South Beloit IL 61080 PH:815-389-4519. Sponsor: ROCK VALLEY RC CLUB

IL

6/11/00 —Palos Park, IL (C) Palos Scale Event. Site: Club Field. Jerry Bernard CD, PO Box 36 Summit Argo, IL 60501 PH:708-594-2998. All scale models welcome. 300x30' black top runway. $500 in prizes, lunch will be provided for all flyers. $10 landing fee. For more info e-mail fanflyer1000@hotmail.com. Sponsor: PALOS RC FLYING CLUB

IL

6/11/00 —Belleville, IL (C) Fun Fly. Site: Club Field. Darryl Seering CD, 22 Michelle Dr Mascoutah IL 62258 PH:618-566-8931. Events to be announced the day of contest. Sponsor: BELLEVILLE RC FLYERS

IL

6/11/00 —Plainfield, IL (A) Fredrickson Memorial Thermal Challenge for 444(JSO). Site: Sod Farm. Tom Kallevang CD, 1315 South Paddock Dr Wheeling IL 60090 PH:847-520-4565. Sponsor: SOAR

IL

6/17/00 —Champaign, IL (C) Piper Cub Fly In. Site: Club Field. Michael Smith CD, 6 Lange Box 131 Savoy, IL 61874 PH:217-352-4537. Paved runway & grass, $5 landing fee. No channel 17, 18, 26, 29, 43, 44, 50, 51 featuring full size J-3 cub. Sponsor: CHAMPAIGN COUNTY RADIO CONTROL CLUB

IL

6/18/00 —Cook County, IL (C-Restricted) GLE Annual Fun Fly. Site: Morrill Field. Dan Nocher CD, 111 Baybury Dr Elmood IL 60421 PH:815-423-5957. Landing fee $10. Raffle and lunch for the pilots. Inspection 8AM. Flying by 9AM. Sponsor: GREAT LAKES EAGLES

IL

6/24/00 - 6/25/00 —Batavia, IL (C) 11th Annual Frelo Helicopter Fun Fly. Site: Fermilab. Jim Zagel CD, 41 W 919 Denali Ct Elburn IL 60119 PH:630-208-9131. All RC helicopters welcome. Novice through expert registration opens at 8AM. Flying begins at 9AM both days. Sponsor: FERMILAB BARNSTORMERS/AL'S HOBBY SHOP

IL

6/24/00 - 6/25/00 —Freeport, IL (C) Sneek In Fly In. Site: Sneek Field. Robert Huisinga CD, 2076 Chelsea Ave Freeport IL 61032 PH:815-232-8216. Free camping, hot water, showers, electric. 2500x120' grass runway, hangar for overnight charging. 6 mi south on Rt 26, 2.5 mile west on Prairie Dell Rd. $3 landing fee. Sponsor: FREEPORT RC MODELERS

IL

6/24/00 - 6/25/00 —Granite City, IL (C) ESRC Annual Float Fly. Site: Horseshoe Lake. Terry Baker CD, 427 E Main Collinsville IL 62234 PH:618-654-9669. 10 minutes from downtown St Louis. Sponsor: EAST SIDE RC CLUB

IL

6/25/00 —Rockford, IL (C) Combat Open & 704. Site: Park District. Ron Monk CD, 3150 Afton Rd Beloit WI 53511 PH:608-362-8450. Sponsor: ROCK VALLEY RC CLUB

Listing and Ad Information

(For Contest Calendar)

NORMAL LISTING

When an AMA sanction is issued for an event, the event will be listed automatically in the Contest Calendar section if received in time. Sanction forms and sanction listing forms should be mailed to your Contest Coordinator (except demos). The listing will give the date, place, and name of the event—plus competition events, flying site, and Contest Director name and address. Use of Supplementary (paid) Ad space is suggested for the description of unusual or special events, deviations from AMA rules, or significant aspects of a meet. Paid ads may also be helpful in promoting fun-fly-type meets or to give directions to the flying site.

SUPPLEMENTARY ADS

Display ads can be inserted in the Contest Calendar section by paying a fee. These ads are accepted for AMA-sanctioned events or AMA club-sponsored non-fly events only. These sizes listed under "SIZE" are the only sizes that will be accepted to be published in the Contest Calendar.

FEE: Fees are based on ad size and whether or not the sponsor is an AMA-chartered club.

AD POLICY

SIZE: 1⅝-in wide and either ¾-, 1½-, or 2¼-in high. Only these sizes will be accepted.

PRICING: ¾—$8; 1½—$16; 2¼—$24 for each time the ad is run (payable in advance). AMA-chartered clubs pay only half that rate.

AD PREPARATION:

* Ads must be dark black on a white background. Please send originals—even good-quality photocopies do not reproduce well. Good-quality paper is recommended.
* No ad can be larger than 1⅝-in. wide by 2¼-in. high.
* Photographs cannot be used in Supplementary Ads.
* Every effort will be made to place the Supplementary Ad next to the text listing, however, it is not guaranteed.

(We reserve the right to charge extra for ads not of reproducible quality and/or ads that do not meet our size requirements.)

SUBMITTAL DEADLINE: Every effort will be made to include Supplementary Ads received by the 14th of the month in the issue reaching readers approximately the fourth week of the following month. However, this cannot be guaranteed, as ads are published on a space-available basis only! There is normally a two-month lead time required for inserting a Supplementary Ad. The same deadline will apply to sanctioned events listings.

Questions about either Supplementary Ads or regular Sanctioned Events listings should be directed to AMA's Competition Department.

Send ads to:
AMA HQ, Attention:
Competition Dept.
5151 E. Memorial Drive
Muncie, IN 47302

Contest Calendar

EAST SIDE R/C CLUB
ANNUAL FLOAT FLY 2000

JUNE 24 & 25, 2000
HORSE SHOE LAKE STATE PARK
GRANITE CITY, IL.

10 MINUTES FROM DOWNTOWN
ST.LOUIS
TAKE HWY.55 TO HWY.111 NORTH
2 ½ MILES TO PARK ENTRANCE ON LEFT

FLYING STARTS AT 10:00 TILL?
OPEN TO ALL AMA MEMBERS

CD TERRY BAKER
DAY PH. 618-345-0087
EVE.PH. 618-654-9669

IL
6/25/00 —Streator, IL (C) Fun Fly. Site: Club Field. Marvin Doucey CD, 622 Magnolia Ln Ottawa IL 61350 PH:815-434-4941. 12th annual fun fly. All size aircraft welcome. 600' runway, no restrictions. Join us for a fun day. Sponsor: STREATOR RC FLYERS

IN
6/03/00 —Ft Wayne, IN (AA) LOFT Weekend OVSS #2 for 442 and 444(JSO). Site: Club Field. Mike Remus CD, 7236 Karen Ct Ft Wayne IN 46835 PH:219-485-6453. RES sailplane by LSF rules, ball bearing winches, golf cart retrieval. Http://www.rc-aero.com/LOFT. Sponsor: LEAGUE OF FLIGHT BY THERMAL

IN
6/03/00 —Edinburgh, IN (C) Fly In. Site: Tracee Field. Carlton Wilson CD, 604 N Lincoln Edinburgh IN 46124-1118 PH:812-526-2162. Fly 9AM till dark. Any type RC plane, helicopters, warbirds. Come fly and have fun. Concession stand available. Channel 20 banned. More info call Boyd Helstrom PH:812-342-3862. Sponsor: JOHNSON COUNTY RC FLYERS INC

IN
6/03/00 - 6/04/00 —Muncie, IN (AA) Mid States Championship for 318, 319, 320, 321(JSO). Site: International Aeromodeling Center. Dave McDonald CD, PO Box 384 Daleville IN 47334 PH:765-378-7228. NCLRA fox racing (Sun). Quickie rat (Sat). sportsman profile carrier, all carrier events Sat only. Sponsor: MUNCIE CONTROLINERS

IN
6/03/00 - 6/04/00 —Muncie, IN (C) C.I.A. Old Timer, Nost FF. Site: International Aeromodeling Center. Gilbert Robbins CD, 1507 Patterson St Anderson IN 46012 PH:765-644-2046. Sat 1/4A, B, C Nos gas, A/B fuse OT gas, early 1/2A nos gas, nos gas ign, OT gas (glow), sml OT rub stk, lrg OT rub fuse, lrg classic pwr, J Allen. Sun 1/2A, A Nos gas, com rub, A/B pylon OT gas, C pylon/fuse OT gas, sml CT rub fuse, lrg OT rub stk, OT - HLG, .02 rep, sml class pwr. Also National Cup competition for Nost gas. Sponsor: CENTRAL INDIANA AEROMODELLERS

IN
6/04/00 —Elwood, IN (C) Madison County Spring Fun Fly. Site: Club Field. Michael Sharp CD, 1205 Maple St Frankton IN 46044 PH:765-754-8402. Typical fun fly events, 3 classes, 3 trophies each class. 11AM starting time, all AMA members welcome. Sponsor: MADISON COUNTY RC FLYERS

IN
6/04/00 —Ft Wayne, IN (AA) LOFT Weekend OVSS #2 - Day 2 for 442 and 444(JSO). Site: Club Field. Dennis Adamsin CD, 5428 Potomac Dr Ft Wayne IN 46835 PH:219-486-7826. RES sailplane by LSF/flats rules, ball bearing winches, golf cart retrieval. Http://www.rc-aero.com/LOFT. Sponsor: LEAGUE OF FLIGHT BY THERMAL

IN
6/04/00 —West Lafayette, IN (A) Doc's Something-Or-Another Combat Contest for 330(JSO). Site: Indiana Soldier's Home. Dr Terry Passen CD, 3851 N River Rd W Lafayette, IN 47906 PH:765-463-1502. 75 mph combat - timing 6.85 seconds for 2 laps, or slower. FAI start, 4 minute air time, Slow combat scoring. Sponsor: CHICAGOLAND CIRCLE CUTTERS

IN
6/04/00 —Muncie, IN (AA) Al Pitts Memorial Contest for 323, 324, 325, 326, 509, 521(JSO). Site: International Aeromodeling Center, George Kite CD, 109 N Denny St Indianapolis IN 46201 PH:317-356-4777. 8AM to 5PM, $10 first event, $7 add'l. Plus old time and classic rules stunt and CL fun scale (minimum static, AMA sport scale flight) rules. Sponsor: INDY SPORTLINERS

IN
6/10/00 —Lafayette, IN (C) "D" Day Battle. Site: McCallister Park. Jack Brewer CD, 2202 Beck Ln Lafayette IN 47909 PH:765-474-1738. RCCA 2610 combat. $10 fee. Sponsor: LAFAYETTE CLOUD JOCKEYS

IN
6/11/00 —Elwood, IN (C) 2610 (704) WWII Combat. Site: Club Field. Ron Pierce CD, 566 E 300 N Anderson IN 46012-1214 PH:765-649-6782. Located 5 1/2 mi north of Elwood on St Rd 13 to Co Rd 1850 N then east 1/2 mi. Sponsor: MADISON COUNTY RC FLYERS

IN
6/17/00 —Richmond, IN (C) WWII Combat. Site: Club Field. Bill Seamans CD, 1714 Capri Ln Richmond IN 47374 PH:765-966-0287. This is a 2610 event. Hard hats required. Registration 9AM, start 10AM. Sponsor: PROPBUSTERS

IN
6/17/00 - 6/18/00 —Muncie, IN (AA) Muncie Pattern Contest for 401, 402, 403, 404, 406(JSO). Site: International Aeromodeling Center. Bruce Bradbury CD, 6108 Knyghton Rd Indianapolis IN 46220. Sponsor: MUNSEE SKYCHIEFS

IN
6/21/00 - 6/22/00 —New Haven, IN (C) 12th Annual Old Timer Contest. Site: Jef. Park. Richard Brace CD, 6121 N Hampton Pl Ft Wayne IN 46815 PH:219-485-8673. Wed June 21 - CL A/B Glow, LER, Fox/McCoy 35 LER, Antique, O & R Sideport, 1/2A Tex. Brown Jr LER. Thurs June 22 - CL C Glow LER, CL C Ign LER, A/B Ign LER, Nostalgia, Texaco. Sponsor: FT WAYNE FLYING CIRCUITS INC

IN
6/24/00 - 6/25/00 —Muncie, IN (AA) 51st Inter-City FAI Contest for Cat II 101, 102-105, 120, 122, 128, 150, 151, 152, 153, 154, 155(JSO), 124, 140, 142(J)(SO). Site: International Aeromodeling Center. Robert Sifleet CD, Rd #3 Box 56 Glen Rock PA 17327 PH:717-235-2421. This is an America's Cup contest. Junior free-for-all (any AMA gas class). Sponsor: BALTIMORE AERO CRAFTSMEN & FAI MODEL SUPPLY

IN
6/25/00 —Dunlapsville, IN (C) Fun Fly. Site: Club Field. Chris Bostick CD, 324 South 21st Richmond IN 47374 PH:765-935-4842. Sponsor: WHITEWATER VALLEY RC

IN
6/30/00 - 7/02/00 —Winamac, IN (C) Jets Over The Heartland. Site: Club Field. Greg Hildebrandt CD, 950 E 250 N Winamac IN 46996 PH:218-946-6290. Fan jets and turbines. 800' paved runway. Food provided on site. No speed run. Everybody flies, all the time. Sponsor: WINAMAC AERO MODELERS INC

KS
6/17/00 - 6/18/00 —Hillsdale, KS (AA) Mid-States Scale Classic for 513, 520(O). Site: Hillsdale State Park. Dick Kohout CD, 15416 Floyd Overland Park KS 66223 PH:913-897-3104. US Scale Masters Qualifier. Sponsor: RC BARNSTORMERS

KS
6/24/00 —Shawnee, KS (C) Competition Fun Fly. Site: Shawnee Mission Park. Mark T Smith CD, 14632 W 50th St Shawnee KS 66216 PH:913-248-9191. Registration 9AM, flying 10AM to 4PM. Events test your piloting skills and a bit of luck. $10 entry fee. Sponsor: SHAWNEE MISSION RADIO CONTROL CLUB

KS
6/24/00 - 6/25/00 —Wichita, KS (AA) Air Capital Pattern Classic for 401, 402, 403, 404, 406(JSO). Site: Beech Field. Jim Johns CD, 5101 East Looman St Wichita KS 67220 PH:316-684-8905. E-mail jjohns@kscable.com. Sponsor: WICHITA RC CLUB

KS
6/24/00 - 6/25/00 —Milford, KS (C) Milford RC'ers Jumbo Fly In. Site: Farnum Creek Park. Phil Kovar CD, 8316 Younkin Dr Milford KS 66514 PH:785-238-1679. Sponsor: MILFORD LAKE RC'ERS

KS
6/24/00 - 6/25/00 —Wichita, KS (AA) Soaring The Plains 2000 for 442 and 444(JSO). Site: Lake Afton CD, 808 W 22nd Hutchinson KS 67502 PH:316-663-2690. E-mail jgross@southwind.net. Sponsor: KANSAS SOARING SOCIETY

KY
6/03/00 —Hebron, KY (C-Restricted) Flying Cardinals Big Bird Fly In. Site: St Rt 8. Joe Bolte CD, 753 Robin Lane Villa Hills, KY 41017 PH:606-341-4983. AMA/IMAA sanctioned event. Large grass runways with open fly over areas. Primitive camping, concessions, pilot raffles/giveaways. Call CD or Bob Bell PH:384-4485. Sponsor: FLYING CARDINALS OF NO KY

KY
6/03/00 - 6/04/00 —Lexington, KY (AA) Blue Grass IMAC for 411, 412, 413(JSO). Site: Club Field. Lew McFarland CD, 3404 Keithshire Way Lexington KY 40503 PH:606-223-1237 e-mail flyxcell1@aol.com. Entry $20, if LMAC or IMAC $15 includes Sat lunch BBQ. New field 600x50' paved runway. Just off I-64 exit 87 follow signs. Sponsor: LEXINGTON MODEL AIRPLANE CLUB

IMAC Scale Aerobatics
BLUE GRASS IMAC
LEXINGTON, KY
JUNE 3 &4

LMAC FIELD - I-64 EXIT 87
BASIC, SPORTSMAN, ADVANCED
PRIZES - PLAQUES & MDSE
ENTRY - $20 - INCLUDES LUNCH SAT.
$15 - IMAC & LMAC MEMBER
$5- 3 MIN. FREE STYLE SUN.
FOOD - PRIMATIVE CAMPING
CD - Lew McFarland (606) 223-1237
E-MAIL - flyxcell1@aol.com
www.geocities.com/lmac_ky

KY
6/11/00 —Lexington, KY (AA) Bluegrass Stunt Championships for 323, 324, 325, 326(JSO). Site: Lexington Field. Wynn Paul CD, 3332 Carriage Ln Lexington KY 40517 PH:606-271-3394. Sponsor: LEXINGTON MODEL AIRPLANE CLUB

KY
6/23/00 —Louisville, KY (A) Mid-South Soaring Championship for 441(J)(SO). Site: Club Field. Edwin Wilson CD, 5308 Sprucewood Dr Louisville KY 40291 PH:502-239-3150. Channel 23 will not be used. Entry forms at www.ig/ou.com/LASS. Registration closes June 1. Sponsor: LOUISVILLE AREA SOARING SOCIETY

KY
6/23/00 —Louisville, KY (C) Mid South Soaring Championship. Site: Club Field. Edwin Wilson CD, 5308 Sprucewood Dr Louisville KY 40291 PH:502-239-3150. Nostalgia rules on web site www.ig/ou.com/LASS. Channel 23 will not be used. Registration closes June 1. Sponsor: LOUISVILLE AREA SOARING SOCIETY

KY
6/23/00 - 6/24/00 —Louisville, KY (AA) Mid-South Soaring Championship for 444(JS)(O). Site: E.P. Tom Sawyer State Park, Edwin Wilson CD, 5308 Sprucewood Dr Louisville, KY 40291 PH:502-239-3150. Entry forms available from CD or go to www.iglou.com/lass. Channel 23 will not be used. Registration closes June 1. Sponsor: LOUISVILLE AREA SOARING SOCIETY

MA
6/04/00 —Middleboro, MA (C) Wingbuster Clown Race. Site: Club Field. Ara Dedekian CD, 48 Rochester Rd Newton MA 02458 PH:617-484-7531. NW Clown racing rules, max laps in a timed period with pit stops. Muffler required. Flying Clown design with .19 max. Plans and kits available. Sponsor: WINGBUSTERS MAC

MA
6/10/00 —Millis, MA (C) MMAC Open Fun Fly. Site: Club Field. Wm Lloyd Jr CD, 286 Webster St Auburndale MA 02466 PH:617-244-2479. Sponsor: MILLIS MODEL AIRCRAFT CLUB

MA
6/11/00 —Bridgewater, MA (C) Summer Fun Fly. Site: Mass Correctional Institute. Leo Coffey CD, 51 Cocke Rd Plymouth, MA 02360 PH:508-746-4128. Sponsor: SOUTH SHORE RADIO CONTROL CLUB

MA
6/24/00 —Gardner, MA (C) New England Scale Champ Fly In. Site: Gardner Airport. Don Weaver CD, 6 Dewey St Maynard, MA 01754 PH:978-897-9591. Scale fly in, landing fee $10, Sat from 8AM till noon open to any scale plane. The plane must be of a scale type aircraft. No trainer types, jets welcome. Grass & asphalt runways. Food on site. Part of the New England Scale Championships. Sponsor: CENTRAL MA RC INC/CHARLES RIVER RC INC

MA
6/24/00 - 6/25/00 —Maynard, MA (C) Crow Island Heli Fun Fly. Site: Private Airport. Michael Swift CD, 10 Senkow Dr Groton CT 06340 PH:860-448-2246. Come and enjoy two full days of uninterrupted flying at the largest and oldest event in the NE with 60 pilots attending last year. Primitive camping, swimming, and caterer on site. Flying starts at 9AM.

MA
6/24/00 - 6/25/00 —Gardner, MA (AA) New England Scale Championships for 510, 511(J)(O) and 512(O). Site: Gardner Airport. Jack Buckley CD, 65 Devens St Marlboro MA 01752 PH:508-481-0955. Food on site, setup and camping Fri, no hook ups. Sportsman, Expert, Team & Jr event. 2000 Scale Masters Qualifier. Flying 12:30PM to 5PM Sat, 8AM to 3:30PM Sun, registration on Sat only. Static 8AM to 12PM Sat, no static on Sunday. Scale fly Sat 7:30AM to 12PM. Sponsor: CENTRAL MA RC INC/CHARLES RIVER RC INC

MA
6/25/00 —Holden, MA (C) Central Mass Championships. Site: North Worcester Fox & Coon Club. Neil Simpson CD, 129 Podunk Rd East Brookfield MA 01515 PH:508-867-8702. Formula GX combat speed limit (73 mph). Control line combat flown in a rounds format. Rules available upon request.

MA
6/25/00 —Falmouth, MA (AA) Spring 2000 for 124, 140, 142(J)(SO), 153-154(JSO). Site: Crane's Wildlife Sanctuary. Stan Colson CD, 47 Sammet St Everett MA 02149-3139 PH:617-389-3313. Sponsor: NEW ENGLAND WAKEFIELD GROUP

MD
6/02/00 - 6/04/00 —Upper Marlboro, MD (C) MHA Heli Fun Fly. Site: Pax Riv. Park. Wayne Hillenbrand CD, 2401 Fox Creek Ln Davidsonville, MD 21035 PH:301-261-3297. Open flying, clinics, beginner help, factory demos, and events for novice, advanced and expert. Sponsor: MARYLAND HELICOPTER ASSN

MHA
Helicopter Fun Fly
June 2-4
Patuxant River Park
Croom, MD
(WWII Airfield)
For information:
E-mail: wdhille@erols.com
Web: www.erols.com/wdhille
Phone: (301) 261 3297
or (703) 924 5508

MD
6/10/00 - 6/11/00 —Bowie, MD (C-Restricted) PGRC 8th Annual Big Bird Fly In. Site: Club Field. Charlie Gettier CD, 196 Old River Rd Arnold MD 21012 PH:410-974-4785. 400x40' paved runway, 800x100' grass strip. Food and concessions available. IMAA rules apply. $10 pilot's landing fee. Sponsor: PRINCE GEORGE'S RADIO CONTROL CLUB

PGRC
8th Annual Big Bird Fly-In



June 10 & 11, 2000
400 X 40' Paved Runway
800 X 100' Grass Strip
Food and Concessions Available
Solko Field Bowie, MD
An AMA / IMAA sanctioned event
IMAA rules apply
CDs: Ed Stern 301-776-3329
sterned@erols.com
Alan Goodman 301-627-7649
ahgoodman@mindspring.com

MD
6/24/00 —Bowie, MD (AA) AMA 428 O-500 for 428(JSO). Site: Club Field. Derrick Schreiner CD, 2353 Leyton Court Waldorf MD 20603 PH:301-893-8395. Sponsor: PRINCE GEORGES RADIO CONTROL CLUB

ME
6/04/00 —New Gloucester, ME (C-Restricted) 1th Annual Giant Scale Fly In. Site: Club Field. Tom Chabot CD, 26 Lot Five Rd Harpswell ME 04079 PH:207-729-3917. IMAA membership required, available on site. Registration begins at 8AM, all aircraft subject to a wings off inspection. Flying starts at 9AM, open flying on Saturday, restricted to IMAA legal aircraft on Sunday. Sponsor: MID-MAINE GIANT SCALE AIRCRAFT MODELERS

Contest Calendar

ME
6/04/00 —Waterboro, ME (C) 2nd Annual Model Aviation Day. Site: Club Field. Toby Guimond CD, HCR 72 Box 5525 E Waterboro, ME 04030-9750 PH:207-247-5008. Low pressure fun fly day. RC, CL, FF, rocketry. Toilet on site. There will be some food. $5 landing fee per pilot. Time slots will be provided for each type of aircraft. Sponsor: RC BUSHPILOTS

ME
6/04/00 —Sidney, ME (A) Fun Scale for 520(O). Site: Club Field. Roland Woodworth CD, 1270 Clinton Ave Benton ME 04901 PH:207-453-9319. Sponsor: KVMA

ME
6/10/00 - 6/11/00 —Scarborough, ME (C) Southern Maine RC Heli Jamboree. Site:Propsnappers Field. Burton Dumond CD, 37 Libby Pines Standish, ME 04084 PH:207-642-4106. Mike Swift, Ray St Onge and other factory reps. Food, free fuel and prizes. Near the Maine Mall and the Portland Jet Port. Sponsor: SOUTHERN MAIN RC HELI ASSN

ME
6/24/00 —Sidney, ME (A) RC Aerobatics for 401, 402, 403, 404(O). Site: Club Field. Richard Hallett CD, 65 Somerset Ave Pittsfield ME 04967 PH:800-430-3058 happl@mint.net. Sponsor: KENNEBEC VALLEY MODEL AVIATORS

MI
6/03/00 —Lenox Twp, MI (C) Warbirds Over Lenox/Wetzel Memorial Warbird Fly In. Site: Wetzel Field, David Wagensomer CD, 20300 Lochmoor Harper Woods MI 48225 PH:313-881-9967. Warbird fly-in open to all AMA pilots, no landing fee. RCCA 2610 WWII scale combat during event. $20 entry fee for combat - NPS 2000 event. Come share the fun! Sponsor: RADIO CONTROL CLUB OF DETROIT

MI
6/03/00 - 6/04/00 —LaSalle, MI (AA) Spring Classic Pylon Race for 424 and 428(JSO). Site: Club Field. Gary Weber CD, 2555 Keygate Apt 7 Toledo OH 43614 PH:419-382-2160. Sponsor: TOLEDO WEAK SIGNALS

MI
6/10/00 —Sumpter, MI (C) 705 Fun Fly. Site: Club Field. Bob Murdock CD, 29985 S Gibraltar Rd Gibraltar MI 48173 PH:734-362-8319. Fun fly 705 rulebook. $5 landing fee, 10:30AM, event picked at meet. Website www.sumhilltop.distantrealm.com. Sponsor: SUMPTER HILLTOPPERS

MI
6/10/00 —Lake Orion, MI (C) Small Fry, Electric & Sailplane. Site: Scripps Rd Field. Greg Cardillo CD, 2086 Cedar Key Ct Lake Orion MI 48360 PH:248-391-6803. 2 cycle engine to .25 cu in. 4 cycle to .30 cu in (tow planes included). Any size electric or glider. 94db at 10 feet. More info ? Call Pete Foss PH:248-652-8756 or www.geocities.com/~skymasters. Sponsor: SKYMASTERS RC MICHIGAN

MI
6/10/00 - 6/11/00 —Maple City, MI (A) L.I.F.T. Early Summer Dual Meet for 441, 442, 443, 444(JSO). Site: Club Field. Jim Johnston CD, 4300 E Timberwood Traverse City MI 49686 PH:231-938-1272. Trophies through 3rd place each day plus 2 day winner trophies. Three 12 volt winches and retrievers will be utilized. Sponsor: L.I.F.T.

MI
6/10/00 - 6/11/00 —Westland, MI (A) Signal Seekers IMAC Clinic for 411, 412(JSO). Site: Club Field. Peter Bergstrom CD, 7526 Balfour Allen Park, MI 48101 PH:734-287-7405. Flying and judging clinic on Saturday. Contest on Sunday. Trophies thru 3rd place. Sponsor: SIGNAL SEEKERS RC CLUB

MI
6/11/00 —Jackson, MI (C) Watts Over Jackson Electric Fun Fly. Site: Club Field. Dan Wamboldt CD, 8740 Roe Road Chelsea MI 48118 PH:734-433-5451. Registration 9AM, flying 9:30AM to 3PM. Food & drinks available. Contact Jack Sowle for additional info PH:517-522-4708 or e-mail jmsowle@dmci.net. Sponsor: JACKSON RADIO CONTROL CLUB

MI
6/17/00 - 6/18/00 —Sturgis, MI (C) Michigan Antique Modelers Old Timer. Site: Airport. Robert Pattison CD, 7778 Walnut Jenison MI 49428 PH:616-457-0822. Gas OT - Pylon - A, BC, Cabin A, BC, Slag, .020 Replica, Pee Wee 30, Nostalgia - 1/2A, ABC, rubber OT - twin pusher, P-30, scale, small stick & cabin, large stick & cabin, Jimmie Allen, Jimmie Allen mass glider HL, RC OT limited A, BC, 1/2A Tex, Texaco, Brown Jr, Chisson S/P, Nostalgia, Fox a coy. Sponsor: MAM

MI
6/24/00 - 6/25/00 —Traverse City, MI (C) TRAMPS Air Show. Site: Club Field. Stanley Hyman CD, 4635 Harris Rd Traverse City MI 49684 PH:231-941-0022. Two days of open flying. All aircraft sizes welcome. Saturday night steak roast. Primitive camping, concession stand. For additional info call CD or e-mail at a5426@tcnet.org. Sponsor: TRAVERSE AREA MODEL PILOTS SOCIETY

MI
6/24/00 - 6/25/00 —Grosse Ile, MI (AA) Indian City Precision Aerobatics Contests for 401, 402, 403, 404, 405(JSO). Site: Municipal Airport. Robert Kane CD, 902 River Court Wyandotte MI 48192 PH:734-281-8514. Former naval air station, 75' wide paved runway. Practice after 5PM, Friday evening. No camping onsite. Contact CD rkane@mich.com or Tim Jesky PH:313-389-1249 e-mail tim.jesky@worldnet.att.net. Sponsor: INDIAN CITY RADIO CONTROL CLUB

MN
6/03/00 —North Branch, MN (AA) Late Spring Meet for 101, 102, 103, 104, 105, 120, 124, 129, 140, 142, 153(JSO). Site: Sod Farm. Hank Liljequist CD, 2510 A E Medicine Lake Blvd Plymouth MN 55441 PH:612-545-8178. Sponsor: MINNEAPOLIS MODEL AERO CLUB

MN
6/04/00 —North Branch, MN (AA) Late Spring Meet for 101, 102, 103, 104, 105, 120, 124, 129, 140, 142, 153(JSO). Site: Sod Farm. Denny Sussman CD, 8143 14th Ave S Minneapolis MN 55425 PH:612-854-0292. Sponsor: MINNEAPOLIS MODEL AERO CLUB

MN
6/09/00 - 6/11/00 —Rosemount, MN (C) 3rd Annual Frost Bite Jet Fly. Site: Club Field. Steve Raten CD, 12925 16th Ave Burnsville MN 55337 PH:952-890-0080. 50x400' asphalt runway w/grass run off & 800' grass parallel. Turbine waivers required. No channel 20. Pilot dinner included Sat night. Landing fee $30. For more info www.isd.net/sfraten. Sponsor: TRI VALLEY RC CLUB

MN
6/10/00 —Farmington, MN (A) Champions Of Soaring for 442, 443, 444(JSO). Site: Jirik Sod Farm. Tom Rent CD, 17540 Kodiak Ave Lakeville MN 55044 PH:612-435-2792. Beginner, intermediate, and advanced classes. Free to first time contestants. Nice awards. Rain date June 11. Pilots meeting 10AM sharp. Call CD for updated information. Sponsor: MINNESOTA RC SOARING SOCIETY

MN
6/10/00 - 6/11/00 —Windom, MN (C) Annual Riverfest Fun Fly. Site: Club Field. Bradley Anderson CD, 1720 Langley St Windom MN 56101-1218 PH:507-831-4226. Miscellaneous door prizes and raffle of plane kit. Sponsor: WINDOM EAGLES MODEL AIRPLANE CLUB

MN
6/10/00 - 6/11/00 —Bemidji, MN (C) 10th Annual Paul Bunyan Float Fly. Site: City Waterfront. Frederick Sanford CD, 3607 Waville RD NE Bemidji MN 56601 PH:218-751-0869. Within walking distance of downtown, food & restrooms nearby. Sponsor: NORTH COUNTRY MODEL CONTROLLERS

MN
6/11/00 —Cedar, MN (A) Anoka County RC Pattern for 401, 402(JSO). Site: Club Field. Brian Dorff CD, 401 Sand Creek Dr Coon Rapids MN 55448 PH:612-754-7250. Two classes for 402(JSO) will be flown, the first will be standard, the 2nd will be restricted to scale models. Sponsor: ANOKA COUNTY RC

MN
6/24/00 —Ham Lake, MN (A) Bob Arko Memorial Fun Scale Contest for 520(JSO). Site: Club Field. Mike Gregori CD, 2801 Woodale Drive Mounds View MN 55112 PH:651-786-7566. Sponsor: ST PAUL RC

MN
6/24/00 - 6/25/00 —Rushmore, MN (C) South West High Flyers Fun Fly. Site: Boldt Field. David Boldt CD, 21316 300th St Rushmore MN 56168 PH:507-478-4361. Field is 4 mi S & 1 3/4 mi W of Rushmore. 250x450' grass runway, shelter & elec. Camping on site. For more info call CD. Sponsor: SOUTHWEST HIGH FLYERS

MO
6/03/00 - 6/04/00 —St Louis, MO (C) Fun Fly/RC Helicopter. Site: Buder Park. Scott Cathey CD, 402 Wall St Wentzville MO 63385 PH:314-639-6278. Events to be announced. Food & drink. For hotel info call Joe Moriarty PH:314-961-1382. Sponsor: ST LOUIS WHIRLYBIRDS/ACTION HOBBIES

MO
6/17/00 - 6/18/00 —Lee's Summit, MO (AA) KCRC 36th Annual Pattern Contest for 401, 402, 403, 404, 406(JSO). Site: Jacomo Flying Field. Mike McFarland CD, 9304 Palmer Kansas City MO 64138 PH:816-765-2545 e-mail mikemc@sky.net. Sponsor: KANSAS CITY RADIO CONTROL

MO
6/24/00 - 6/25/00 —Springfield, MO (AA) 2nd Blacksheep IMAC Challenge for 411, 412, 413, 414(JSO). Site: RC Flying Site. Mike Howard CD, 820 W Mel-O Ct Springfield, MO 65807 PH:417-883-1187. Free style will be flown Sunday. No gyros, unknowns in 412, 413, 414. Sponsor: SPRINGFIELD RC CLUB

MS
6/04/00 —Jackson, MS (C) 14th Annual Boyce Blanton Memorial Fly In. Site: Club Field. Hank Cooper CD, 125 McWilliams Dr Terry MS 39170 PH:601-857-3111. Sponsor: MID MISSISSIPPI RADIO CONTROL CLUB

MS
6/25/00 —Eliot, MS (C) Fly In Site: Wills Field. Jimmy Franklin CD, Rt 2 Box 388 Vaiden MS 39176 PH:662-464-5648. Primitive camping on site, concession stand will be available. Sponsor: TRI CITY CLOUD DANCERS

16th Annual St. Louis Helicopter Fun Fly



June 3th & 4th
Buder Park - St. Louis, MO

Starts 9:00am Each Day
Landing Fee $20.00
Event Trophies & Door Prizes

(314)961-1382
stl_heli@inlink.com
http://www.inlink.com/~stl_heli

Sponsored by
Action Hobbies & St. Louis Whirlybirds

MT
6/03/00 —Missoula, MT (C) Open Combat RCCA "B". Site: Club Field. William Ruediger CD, 1916 Brooks #304 Missoula, MT 59801 PH:406-251-6610. Sponsor: BIG SKY T-BIRDS

MT
6/23/00 - 6/25/00 —Billings, MT (C) Russ Kniefel Memorial Fly In. Site: Club Field. Dennis Rollins CD, Box 80411 Billings, MT 59108 PH:406-652-5026. Sponsor: BILLINGS FLYING MUSTANGS

MT
6/24/00 —Bozeman, MT (C) Bozeman Combat Meet. Site: Club Field. Mark Jenks CD, 11 Chouteau Ave Bozeman MT 59718 PH:406-586-2693. 1/12 scale combat and open combat by RCCA rules. Scale will use 2610 rules. Entry fee $15 for one event, $25 for both events. Entry fee includes lunch. Flying starts at 9AM. Sponsor: GALLATIN VALLEY EAGLES

NC
6/03/00 —Goldsboro, NC (C-Restricted) 10th Annual Wayne Miniature Aeronautics Big Bird Fly In. Site: Rosewood Field, Neil Watson CD, 512 Rosewood Dr Smithfield, NC 27577 PH:919-934-6548. Field located one mile off Hwy 70 west - Goldsboro. Landing fee $5, no channel 22. Contact CD for brochure & map. Sponsor: WAYNE MINIATURE AERONAUTICS

NC
6/03/00 —Sanford, NC (C) Annual Float Fly. Site: Kelly's Lake. J. R. Smith CD, 3218 Kendale Dr Sanford NC 27330 PH:919-776-3752. Sponsor: SANFORD MODEL AIRPLANE CLUB

NC
6/03/00 - 6/04/00 —Mt Pleasant, NC (C-Restricted) 8th Annual Jim Boone Memorial Giant Scale. Site: Boone Field. Gilbert Coler CD, 8263 Hickory Ridge Rd Harrisburg, NC 28075 PH:704-455-5385. 125x700' grass runway. Food available both days. 2 miles from the intersection of NC Hwy 73 and Dutch Rd. Sponsor: CABARRUS RC FLYERS

NC
6/03/00 - 6/04/00 —Wilmington, NC (C) Sun & Fun Fly In. Site: Olsen Field. W Kerry Williams CD, 4502 Greg Dr Wilmington NC 28405 PH:910-799-1901. Pilot's choice awards both days. RV's welcome, no hook ups, vendors welcome, 500' grass runway, 68 acres overfly. Sponsor: WILMINGTON MODEL FLYING CLUB

NC
6/03/00 - 6/04/00 —Huntersville, NC (A) Carolina Classic for 322, 323, 324, 325, 326(JSO). Site: David B Waymer Field. Larry Draughn CD, 2028 McPherson St Asheboro NC 27203 PH:336-672-0572. Old time & classic stunt along with basic flight for the new cover on Sat the 3rd. PAMPA skill classes on Sunday the 4th. Start time on Sat approx 12 noon, Sunday 9AM sharp. Sponsor: METROLINA CONTROL LINE SOCIETY

NC
6/04/00 —High Point, NC (C) Central Carolina RC 8th Annual Open House. Site: Club Field. Howard Payne CD, 460 Dilworth Rd Kernersville NC 27284 PH:336-869-5092. All aircraft welcome, 700' grass strip with plenty of overfly area. Restrooms, camping ok, no hook ups. Jack's Famous Hot Dogs & Hamburgers. Field phone 336-495-5439. Sponsor: CENTRAL CAROLINA RC INC/KS HOBBIES INC

NC
6/08/00 - 6/11/00 —Statesville, NC (C-Restricted) IMAA District IV Big Bird Fly In. Site: Flying S Ranch - Double Creek Airport. Roger Stutts CD, 1106 Charlotte Hwy Troutman NC 28166 PH:704-528-6771. I77 at Statesville take exit 49A, go east on Hwy 70 toward Salisbury 7.3 miles. Field is on left. Signs will be posted. S.A.S.E. Sponsor: STATESVILLE MODEL FLYERS

2000 IMAA District IV Regional Fly-In

Hosted by



Statesville Model Flyers



of Statesville, North Carolina

June 8-11, 2000

Location: Flying S, Double Creek Airport, 30 miles north of Charlotte, Exit 49 -A onto 70 east toward Salisbury.

Landing fee of $10.00 will cover all 4 days

Flying from 9:00 a.m. until

Primitive RV parking

Food and Beverage Concessions on site

Contest Director: Roger Stutts

For more information call Roger Stutts (704) 528-6771 or Ben Crouch (704) 872-8800 or check out our web site at www.energyunited.net/~dsjerks/index.htm

NC
6/17/00 —Asheville, NC (C) ABA Fly In. Site: Old Landfill. Herman Pounders CD, 10 Revonda Dr Asheville NC 28804 PH:828-254-5230. Engines must meet 94 db at 9'. Sponsor: ASHEVILLE BUNCOMBE AEROMODELERS

NC
6/17/00 —Kinston, NC (C) Fun Fly - Fly In. Site: Club Field. Les May CD, 758 Colony Place Kinston NC 28501 PH:252-522-3519. Landing fee $5, food & sanitary facilities on site. AMA required. Bring what you have, fly what you bring. Sponsor: RICHARD CASWELL AERONAUTS

NC
6/17/00 —Lexington, NC (C) Fun Fly. Site: Club Field. A. L. Mills CD, 1177 Hedgecock Rd High Point NC 27265 PH:336-869-3873. Sport competition & luck events. Food & drinks. Bring planes & have fun. $5 landing fee. Terrific members with plenty of fun & fellowship. Upon leaving Hwy Bus 85, drive slowly, children at play. Sponsor: TRIAD AEROMODELERS INC

NC
6/24/00 - 6/25/00 —High Point, NC (AA) IMAC Scale Aerobatics Challenge for 411-414(JSO). Site: Club Field, Ronnie Garris CD, 3266 Giant Oaks Dr Sophia NC 27350 PH:336-861-1217. Camping available, no hook ups. Full concession including Jack's famous dogs & burgers. Awards given in all categories. Contestant judging. Field PH:336-495-5439. Unlimited class - preregister. Sponsor: CENTRAL CAROLINA RC MODELERS

NE
6/03/00 - 6/04/00 —Omaha, NE (AA) Annual June Contest for 319, 320, 321, 323, 324, 325, 326(JSO). Site: Seymour Smith Park. Robert Furr CD, 8147 Read St Omaha, NE 68122 PH:402-571-5641. Saturday stunt clinic and 75 mph combat. Sunday PAMPA classes. Stunt, carrier ½ of record and .15 carrier. Sponsor: ORBITING EAGLES CONTROL LINE CLUB

NE
6/11/00 —Genoa, NE (C) Genoa RC Flyers Fun Fly. Site: Airport. Les Hardesty CD, 1654 18th Ave Columbus NE 68601 PH:402-564-8170. Airport is located south of Genoa, NE on NE Hwy 39. Join us for fun, fellowship, & flying. Sponsor: GENOA RC FLYERS

NE
6/17/00 - 6/18/00 —Waverly, NE (A) World War II RC Combat for 704(JSO). Site: Club Field. Michael Yearley CD, 511 Mormon Trail Lincoln NE 68521 PH:402-475-1609. $20 entry fee, paved runway, 10AM to 5PM both days. Battle of Britain Over Waverly. BBQ Sat night at field. Sponsor: LINCOLN SKY KNIGHTS

NE
6/18/00 —York, NE (C) Fun Fly. Site: Club Field. Leon Baker CD, 662 North 6th St Seward NE 68434 PH:402-643-2667. 1/2 mile south, 1/2 mile east of I80 & US Hwy 81. Sponsor: YORK THUNDERBIRDS RC CLUB

NE
6/24/00 - 6/25/00 —Waverly, NE (C) Annual June Fun Fly. Site: Club Field. Paul Cooper CD, 14510 Jamestown Waverly NE 68462 PH:402-786-2620. Sponsor: LINCOLN SKYKNIGHTS

NJ
6/04/00 —Middlesex, NJ (AA) New Jersey Spring Racing Championship for 311 and 312(J)(SO). Site: Mountainview Park. Robert Sacek CD, 57 Gates Rd Somerset NJ 08873 PH:732-873-2059. NCLRA Fox race, (J)(SO). 311 Foxberg racing, MM rules, (J)(SO). Warbird, MM rules (J)(SO). Trophies to 5 places in all events. Sponsor: MIDDLESEX MODELERS INC

Contest Calendar

NJ
6/04/00 —Lincoln Park, NJ (AAA) GSCB June Stunt Meet for 323, 324, 325, 326(JSO). Site: Club Field. R Peabody CD, 175 Pinewood Place Teaneck, NJ 07666 PH:201-837-8607. Come and enjoy the annual June stunt meet! We will fly all four classes of AMA stunt, plus classic (PAMPA rules/skill classes), old time stunt(GSCB rules), OTS II. 30th anniversary of OTS. Food, fun at the George L Gaydos field, Two Bridges Rd, Lincoln Park. Sponsor: GARDEN STATE CIRCLE BURNERS

NJ
6/10/00 —Lakehurst, NJ (C) Navy Relief Fun Fly. Site: Navy Base. Salvatore Piu CD, 844 Spray Ave Beachwood NJ 08722 PH:732-349-4883. Sponsor: OCEAN COUNTY MODELERS

NJ
6/10/00 - 6/11/00 —Monroeville, NJ (AA) Clayton RC Precision Aerobatics Contest for 401-406(JSO). Site: Club Field. George Asteris CD, RD 2 Box 398I Moravian Church Rd Swedesboro, NJ 08085 PH:856-467-1460. Asst CD - Earl Vincent PH:856-753-9361. Dinner Sat included in reg fee. See you in June! Sponsor: CLAYTON RC INC

NJ
6/11/00 —Woodland, NJ (C) SAM Contest. Site: Coyle Field. Sal Cannizzo CD, 249 Birch Ln Forked River NJ 08731 PH:609-693-5823. SAM events: ABC glow comb, ABC ignition comb, Brown Jr LER, 60 seconds, 1/2A Tex 5.1cc tank or 1/2 Tex scale, Tex fuel allotment or A Tex w/#5 tank. Sponsor: PINE BARREN MODELERS

NJ
6/11/00 —Sewell, NJ (A) Spring Fling for 312(JSO). Site: Gloucester Co Institute of Technology. Lawrence Bush CD, 2550 Dupont St Coatesville PA 19320 PH:610-383-5045. 311 - warbird, .018 solid lines, 311 - .21 big Goodyear, 311 - clown racing. Sponsor: SOUTH JERSEY AEROMODELERS

NJ
6/18/00 —North Wildwood, NJ (C) North Wildwood Beach Fly. Site: 15th St & Beach. Harold Hearon CD, 454 Dias Crk Rd Cape May Courthouse NJ 08210 PH:609-465-7091. Sponsor: CAPE MAY CO WASPS

NJ
6/24/00 - 6/25/00 —Colts Neck, NJ (C-Restricted) 7th Annual Joe Roslyn Memorial Fly In. Site: Dorbrook Park. Don Shugard CD, 27 Devon Rd Middletown NJ 07748 PH:732-615-0188. Restricted to IMAA members, all IMAA rules apply, grass strip. Free primitive RV camping by reservation only; food, raffles, proceeds to benefit Friends Of The Parks. Visit web site http://rcclubs.com/jcst. Sponsor: JERSEY COAST SPORT FLIERS

NJ
6/25/00 —Lincoln Park, NJ (AA) Navy Carrier Contest for 319, 320, 321, 521(JSO). Site: Club Field. Roy Ward CD, 19 Hewlett Rd Towaco NJ 07082 PH:973-402-0925. Navy carrier contest for 319, 320, 321, and 15 carrier, also 521 and fun scale, profile stunt, beg, int, adv/exp with handicap. Food & drink on site. Sponsor: GARDEN STATE CIRCLE BURNERS

NM
6/03/00 —Rio Rancho, NM (A) Rulebook Fun Fly Event 705(JSO). Site: Balloon Park Parking Lot. F. G. Nesbitt CD, 3409 32nd Circle SE Rio Rancho NM 87124 PH:505-892-5702. Come fly with us for a day of relaxation. We will have four events selected from the NCFFA suggested list. For details contact glenbitti@cs.com. Sponsor: RIO RANCHO RC FLYING CLUB

NM
6/10/00 - 6/11/00 —McIntosh, NM (A) Albuquerque Summerfest for 445(JS)(O). Site: Gardner Turf Farm, Phil Renaud CD, 10609 Griffith Park Dr NE Albuquerque NM 87123 PH:505-299-9244. Sponsor: BBQ BUNCH

NM
6/17/00 - 6/18/00 —Albuquerque, NM (AA) Roadrunner Pattern Classic for 401, 402, 403, 404, 406(JSO). Site: Club Field. Richard Lindberg CD, 1007 Roadrunner Ln NW Albuquerque NM 87107-6441 PH:505-344-8990. Premier flying site, 700x100' paved NS, 400x100' EW. Paved pit area. Shade, water, toilets, picnic tables, camp at field ok, no hook ups. Banquet Sat even at CD home, free to reg pilots. Concessions both days. 2000 rulebook will be used. Masters pilot will fly new 2000 sequence. Any AMA legal aircraft ok for sportsman, tuned pipes allowed for all classes, noise measurement advisory only. Entry fee $25, pre reg encouraged. Sponsor: ALBUQUERQUE RC CLUB

NM
6/24/00 - 6/25/00 —Albuquerque, NM (C) 4th Annual All Scale Fly In. Site: Maloof Air Park. Pat Tritle CD, 10313 Snow Heights Blvd NE Albuquerque NM 87112 PH:505-296-4511. All scale, all types sport or expert (no profiles). Pre-registration - 5 ticket bonus. Pilots prizes, raffle & special awards for Tucson flyers. $15 registration. Open flying all day both days. Sponsor: NEW MEXICO SCALE ASSN/RESPOND FIRST AID/PAT'S CUSTOM MODELS

NV
6/03/00 - 6/04/00 —Las Vegas, NV (AA) Las Vegas IMAC Summer Sizzle for 411, 412, 413, 414(0). Site: North Las Vegas Air Park, Thomas Collins CD, 3171 S El Camino Rd Las Vegas NV 89146 PH:702-362-1315. Sponsor: LAS VEGAS RADIO CONTROL CLUB

NV
6/09/00 - 6/11/00 —Reno, NV (C) Reno Rotary Rendezvous. Site: Club Field. Louis Hlousek CD, 3541 Brighton Way Reno NV 89509 PH:775-348-0879. RC helicopter fun fly. Events for all skill levels. Huge raffle and manufacturer's displays. Sponsor: RENO RADIO CONTROL CLUB

NV
6/16/00 - 6/18/00 —Wells, NV (C) Tri-State Fly In. Site: Harriet Field. Max Wignall CD, 911 Northside Dr Elko NV 89801 PH:775-738-5828. Sponsor: ELKO RC CLUB/CITY OF WELLS/FOUR WAY CASINO

— 5TH ANNUAL —
TRI-STATE
R/C FLY-IN
WELLS, NV JUN 16-18
5000' PAVED RUNWAY
ALL R/C AIRCRAFT WELCOME
JETS HELIS SAILPLANES AND AIRPLANES
REST INN SUITES PKG.
2 NIGHTS FOR $$ OF 1
RESERVATIONS 775-752-2277
AMA MEMBERSHIP REQ.
CD: MAX @ 775-738-5828

NY
6/03/00 - 6/04/00 —Brockport, NY (C) Ray Edmunds Memorial Air Show & Fun Fly. Site: Northampton Park. Paul Weigand CD, 283 Strathmore Rd Rochester, NY 14612 PH:716-621-8524. Campers welcome, no hook ups. Free Saturday night picnic for all pilots. A great weekend get together. Sponsor: RC CLUB OF ROCHESTER

NY
6/04/00 —Wantaugh, NY (C) Meroke 8th Annual Fun Fly. Site: Cedar Creek Aerodrome. John DeSera Sr CD, 221-30 91 Road Queens Village, NY 11428 PH:718-479-7917. Registration starts at 8AM. Pre-registration and questions please call CD or Ernie Schack PH:516-481-1814. Prizes awarded for events. Guaranteed to be a fun filled day. Sponsor: MEROKE RC CLUB

NY
6/07/00 - 6/10/00 —Elmira, NY (C) Elmira Aerotow. Site: Harris Hill. John Derstine CD, RD #3 Box 336 Gillett PA 16925 PH:570-596-4392. Aerotow fun fly for large scale sailplanes. Sponsor: HARRIS HILL L/D RC CLUB

NY
6/10/00 —Genesseo, NY (AA) W.N.Y.F.F.S. Spring Fling for Cat III 101, 102-105, 120(JSO) and 124, 140-142(JS)(O). Site: Genesseo Airport. John Carls CD, Star Rt 2 Box 88 Bradford PA 16701 PH:814-362-7789. Old time rubber, 1/2A-C Nostalgia, FAC rubber scale, John Low mass launch, 020 Replica - 1/2A Nostalgia. Sponsor: WESTERN NEW YORK FREE FLIGHT SOCIETY

NY
6/10/00 - 6/11/00 —Bath, NY (C) Fun Fly. Site: Jolamtra Airport. Paul Sutherland CD, 8413 Ridge Rd Hammondsport, NY 14840 PH:607-583-4742. Camping available, no hook ups, scale encouraged, all welcome. Sponsor: BATH AREA RADIO KONTROL SOCIETY

NY
6/10/00 - 6/11/00 —Clay, NY (C-Restricted) SAM 58 14th Annual RC Old Timer and Antique Model Aeroplane Contest of Central New York. Site: Grenadier Field. Arthur Wheler CD, 5 Old Farms Ln Cazenovia, NY 13035 PH:315-655-9068. A & B Ign comb, Antique A-B-C glow, C Ign, Brown Jr, 1/2A Texaco, Electric A LIVR, pure antique, Texaco 30 min max, Ohlsson 60 side port cabin, A & B glow comb, electric A Tex, special cabin, 1/2A Tex scale, Ohlsson 23, 1/2A Tex electric. All events RC SAM rules. Sponsor: SAM 58 ANTIQUE MODELERS OF CENTRAL NEW YORK

NY
6/17/00 —Hamburg, NY (A) RC Aircrafters Pattern Contest for 401, 402, 403, 404, 406(JSO). Site: Hamburg Model Air Park. Bill Hauth CD, 100 Milford St Hamburg NY 14075 PH:716-649-8532. For directions and lodging call Steve Miller PH:716-655-5102 or Tom Warda PH:716-824-7544. Sponsor: RADIO CONTROL AIRCRAFTERS

NY
6/22/00 - 6/25/00 —Kirkwood, NY (C-Restricted) World Miniature Warbird Scale Classic. Site: 2432 Route 11. Dino DiGiorgio CD, PO Box 175 Succasunna NJ 07876 PH:973-584-6096. Sponsor: WORLD MINIATURE WARBIRD ASSN



NY
6/24/00 —Brockport, NY (C) RCCR Combat Contest. Site: Bolling Field, Jim Warner CD, 313 Willowbrooke Dr Brockport, NY 14420 PH:716-637-7599. RCCA scoring. Hard hats required. Registration 9AM, start 10AM. Entry fee. Call, write or e-mail for info: jmw@dellnet.com. Sponsor: RC CLUB OF ROCHESTER

NY
6/24/00 —Syosset, NY (A) Empire State RC Soaring Classic for 444(JSO). Site: South Woods. John Hauff CD, 7-11 147th St Whitestone NY 11357 PH:718-767-1369. Sponsor: LONG ISLAND SILENT FLYERS

NY
6/24/00 6/25/00 —Phelps, NY (C) Sky Rovers Y2K Airshow. Site: Ford Field. David Reid CD, 30 Clifton St Phelps NY 14532 PH:315-548-3779. Uncontest for all scale, giant scale, & sport planes. Registration 8AM, flying 10AM to 4PM daily. Free picnic supper Sat evening for pilots. No registration or parking fees. New improved field layout this year. Sponsor: SKY ROVERS FLYING CLUB INC

NY
6/25/00 —Syosset, NY (A) Empire State RC Soaring Classic for 444(JSO). Site: South Woods. Hans Wiederkehr CD, 24 Deer Run Wading River NY 11792 PH:516-929-5507. Sponsor: LONG ISLAND SILENT FLYERS

OH
6/03/00 - 6/04/00 —Akron, OH (C-Restricted) 16th Annual Big Plane Fly In. Site: Summit Co Fairgrounds. Donald Flautt CD, 4347 Stow Rd Stow OH 44224 PH:330-688-9603. No landing fee, registration 9AM, Sat flying 10AM to 5PM, Sunday flying 10AM to 3PM. RV parking, concessions, sanitary, 300x600' field. Sponsor: CORSAIR MODEL AIRCRAFT CLUB

OH
6/10/00 - 6/11/00 —Dayton, OH (B-Restricted) Dayton Wright Flyers Pylon Race for 422, 424, 428(JSO). Site: Wegerson Garden Center, Bennie Martin CD, 2021 W Dorthy Ln Dayton OH 45439 PH:937-439-5141. Must pre-register or register at field Friday June 9th 4:30PM to 7:00PM. Two one day races. Sat 0500, standard, novice (CAPS rules) Sun 0M40, standard, novice (CAPS rules) races start 9AM. Sponsor: DAYTON WRIGHT FLYERS RC CLUB

OH
6/10/00 - 6/11/00 —Lancaster, OH (C-Restricted) FORKS Giant Fly In. Site: FORKS Field. Joe Grubb CD, 5277 Amanda-Clearport Rd Amanda OH 43102 PH:740-969-2631. IMAA and AMA required. IMAA size and safety restrictions apply. No channel 19, 20, 21. Open flying all day with Saturday night cookout and combat. Free tail gate swap shop. Grass runway with no obstructions. $5 landing fee. Sponsor: FLYING FORKS

OH
6/10/00 - 6/11/00 —West Liberty, OH (C) TORCS Float Fun Fly. Site: 10343 St Rt 41. Ken Koenig CD, 201 E State St Botkins OH 45306 PH:937-693-3364. No boats permitted. Directions from West Liberty OH - east on St Rt 245 to St Rt 287. Turn south on County Rd 41 (3/4 mile south @ rc343. Watch for signs. Sponsor: TORCS

OH
6/11/00 —Elyria, OH (A) CFFS FAC Scale & FF Contest for 140, 142(J)(S)(0). Site: Lorain County Community College. Jim Hyka CD, 16225 Park Grove Cleveland OH 44110 PH:216-481-6525. 29 events for FAC scale. Free Flight, & Old Timer Rubber. Sponsor: CLEVELAND FREE FLIGHT SOCIETY

OH
6/11/00 —Bolivar, OH (C) Fun Fly. Site: Republic Waste Management. Gary Villard CD, 3301 23rd NW Canton OH 44708 PH:330-477-2324 e-mail mr.fiberglass@juno.com. A fun fly for any size aircraft, large grass field just north of Bolivar OH on Gracemont Ave. Land owner is Republic Waste Management Systems. Come enjoy our new field, we guarantee a good time for all. Sponsor: RC EAGLES

OH
6/11/00 —Yellow Springs, OH (C) DARTS Res/Nostalgia Soaring Contest. Site: Twin Towers Park. Don Harris CD, 427 Marlemont Dr Westerville OH 43081 PH:614-882-0748. Man-on -man RES/Nostalgia soaring contest. Sponsor: DAYTON AREA THERMAL SOARERS

OH
6/16/00 - 6/18/00 —Oxford, OH (C) Greater Cincinnati Jet Fly. Site: Miami U Airport. Joe Amato CD, 1707 Aspenhill Dr Cincinnati OH 45240 PH:513-742-0767. 10th annual greater Cincinnati jet fly. Flying Fri/Sat 9AM to 5PM, Sun 9AM to 3PM. 70x4000' runway, no flight or frequency restrictions. Food, refreshments, raffle. Sponsor: HAMILTON AREA WIRELESS KONTROL SOCIETY

10TH ANNUAL
GREATER
CINCINNATI
JET FLY
Miami University Airport
Oxford, Ohio
JUNE 16-18, 2000
70 x 4000' runway
$20 Pre-register
$25 at the event
JPO Approved
JOE AMATO, CD
(513) 742-0767

OH
6/17/00 —Dayton, OH (A) Dayton Sector Skirmish for 142(JSO). Site: Wright Field, WPAFB. Frank Scott CD, 6633 LeFevre Rd Casstown OH 45312 PH:937-335-3057. All prospective entrants must register with CD by June 1, 2000 to gain admittance to Wright Field. Sponsor: MCCOOL FIELD SQUADRON

OH
6/17/00 —Napoleon, OH (C) Fun Fly. Site: Club Field. George Shareyleit CD, 218 E Cherry Lot 19 Liberty C3 landing fee, food on site. 1 mile north of Napoleon on Co Rd 13 - 1/2 mile north of WalMart. Fly what you bring. Camp fire Fri & Sat. Sponsor: THISTLEDOWN FLYERS

OH
6/17/00 - 6/18/00 —Shelby, OH (C-Restricted) 17th 1/4 Scale Air Fair. Site: Shelby Airport. Dick Sheppard CD, 2901 Plymouth Spring Mill Rd Shelby, OH 44875 PH:419-747-6362. Airport location on St Rt 39NW, half way between Cleveland & Columbus off I71, 12 mi NW of Mansfield. $2500 super pilots raffle, Sat night midwestern BBQ, demonstration flying at noon. Mfgs & vendors RSVP please. No swap area in 2000. Ohio Nat'l Warbird rally at 1:30PM. Friend Engineering trophy of excellence. RC Aviation Dog Of The Year award. Open flying Friday night, no landing fees. For motel info PH:800-642-8282. Sponsor: MANSFIELD AREA RC SOCIETY

OH
6/17/00 - 6/18/00 —Cincinnati, OH (AA) Queen City Speed Meet for 301, 302, 303, 306, 307, 310(JSO) and 304, 308, 309(SO). Site: Luken Airport. Ken Barthel CD, 5953 Winnetka Dr Cincinnati OH 45236-4223 PH:513-793-7239. Sponsor: QUEEN CITY U-CONTROL CLUB

OH
6/18/00 —Marlboro, OH (C) 10th Annual Gerry Bittle Open Fly. Site: Hawk Field. Richard Fano CD, 1382 Elmwood SW N Canton OH 44720 PH:330-499-6647. Sponsor: NORTH CANTON RC CLUB

OH
6/24/00 —Alliance, OH (C) 4th Annual Nite Fly. Site: Barber Airport. William Peel CD, 1005 31st St NE Canton, OH 44714 PH:330-454-5283. We fly both fixed wing and helicopters, large lighted field. Good food & fun. Flying starts at dusk until ? Sponsor: ALLIANCE BALSA BEES INC

OH
6/24/00 —Columbus, OH (C-Restricted) Box Fox Memorial Big Bird. Site: Alum Creek State Park. Mike Barbee CD, 6561 Calgary Ct Columbus OH 43229 PH:614-891-1643. Channels 20 or 21 may not be used. Sponsor: WESTVILLE MODEL AERONAUTICS

Contest Calendar

17th ANNUAL



I.M.A.A. DIST III
1/4 Scale AIR FAIR
June 17 & 18 2000
Shelby Ohio Airport
12 miles NW of Mansfield on Rt. 39
Sponsors
Chapter 350 I.M.A.A.
Mansfield Area R C Society
Dick Sheppard 419-747-6362
Jim Hepner 419-589-3835
www.mansfieldtourism.org

OH

6/24/00 —Findlay, OH (C) Flag City Big Bird Fly In. Site: City Air Park. Scott Swanger CD, 411 W Sandusky St Findlay OH 45840 PH:419-422-0032. Landing fee $5. Spectator $2 per car load. No hook ups. Concessions. Open fly on the 25th of June. Sponsor: FINDLAY FLYING CIRCUITS

OH

6/24/00 - 6/25/00 -Lisbon, OH (C-Restricted) 6th Annual East Ohio Big Wings Fly In. Site: Club Field. Al Myers CD, 5176 Middletown Rd Canfield OH 44406 PH:330-533-5026. $2 landing fee. Registration 8AM, flying to be 9AM to 5PM both days. Sponsor: CENTAURS

OH

6/24/00 - 6/25/00 —Wooster, OH (AA) Wooster Summer IMAC for 411, 412, 413, 414(JSO). Site: Club Field. Robert Mairs CD, 2089 Heyl Rd Wooster OH 44691 PH:330-263-5038. Masters qualifier for North Central region of IMAC. 9AM 6/24, 10AM 6/25. Trophies through 3rd place, freestyle award, food on grounds. Sponsor: WAYNE COUNTY RC CLUB

OK

6/03/00 - 6/04/00 —Oklahoma City, OK (AA) 2000 Sooner Pattern Classic for 401, 402, 403, 404, 406(JSO). Site: Baxter Field. John Forehand CD, 9707 Warriner Circle Oklahoma City, OK 73162 PH:405-728-2529. Sponsor: BAXTER FIELD FLYING CLUB

OK

6/03/00 - 6/04/00 —Guthrie, OK (C-Restricted) OK Sooner Squadron Big Bird. Site: Club Field. James Ellis CD, 1802 Clark Dr Guthrie, OK 73044 PH:405-282-4623. Open inspection of all aircraft, no landing fee and a free lunch for all pilots. Sponsor: OK SOONER SQUADRON

OK

6/17/00 —Wilburton, OK (C) Annual Fly In. Site: Airport. Hank Mooney CD, Rt 2 Box 329 Wilburton OK 74578 PH:918-465-2018. Pilots choice awards for best: civilian, sport, flight performance, military. 3500' hard top runway, excellent runway for fan jet. Airport closed for fly-in. Camping & cabins near at Robbers Cave State Park or at site. Sponsor: KIAMICHI VALLEY FLYERS ASSN

OK

6/24/00 - 6/25/00 —Copan, OK (C-Restricted) Bartlesville Big Bird Fly In. Site: Copan Model Air Park. William Stultz CD, PO Box 93 Caney, KS 67333 PH:316-879-5662. AMA & IMAA required. Concessions available. Addition people to contact for info: Clifton (Yogi) Snider PH:918-255-6664; Greg Reich PH:918-335-5042. Free lunch for pilots. Sponsor: BARTLESVILLE FALCON MODEL CLUB INC

OK

6/24/00 - 6/25/00 —Broken Arrow, OK (C) 9th Annual Old Timers Contest. Site: Fitzgerald Field. James Steinberg CD, 555 S 99th E Ave Tulsa OK 74128 PH:918-835-4071. Sponsor: AMERICAN TURF FLYERS/SAM CHAPTER 93

OR

6/03/00 —Canby, OR (A) PASS Hand Launch for 441(JSO). Site: Molalla River State Park. David Portwood CD, 7624 SE Taylor St Portland, OR 97215 PH:503-262-6357. Sponsor: PORTLAND AREA SAILPLANE SOCIETY

OR

6/10/00 - 6/11/00 —Eugene, OR (C-Restricted) Big Bird Fly In. Site: Short Mt. Carl Henson CD, 2853 Maesner St Eugene OR 97404 PH:541-688-0642. No contest, just fly for enjoyment. Restricted to 80" mono or 60" bipe or 1/4 scale. Camping on site. No hook up except limited electrical. Food & soft drinks available for lunch. Landing fee $15. Open to non-flying public free. Sponsor: EUGENE RC AERONAUTS

SAM 93
9th ANNUAL
SAM OLD TIMER
CONTEST
16 R/C Assist Events
June 24-25,2000
Fitzgerald Field, Broken Arrow, OK



CD Jim Steinberg, 555 So. 99th E. Ave
Tulsa, OK 74128 Ph.(918)835-4071
E-mail- jsteinb656@aol.com

OR

6/11/00 —Canby, OR (A) PASS Hand Launch for 441(JSO). Site: Molalla River State Park. Terry Erickson CD, 2034 Lilac Way Woodburn OR 97071 PH:503-982-0792. Sponsor: PORTLAND AREA SAILPLANE SOCIETY

OR

6/17/00 - 6/18/00 —Portland, OR (A) PASS Thermalitis for 442 and 444(JSO). Site: Blue Lake Park. Tom Culmsee CD, 2607 SE Linneman Dr Gresham, OR 97080 PH:503-667-4532. 25th annual thermal soaring contest. Three four 20 minute add-em-up plus various international duration events. Sponsor: PORTLAND AREA SAILPLANE SOCIETY

OR

6/17/00 - 6/18/00 —Sutherlin, OR (C) Plat I Float Fly. Site: Plat I Lake. John James Jr CD, 251 Arrow Way Myrtle Creek, OR 97457 PH:541-863-7400. Landing fee $15. Pilots drawing Sunday. All planes must pass AMA safety rules. Sponsor: UMPQUA VALLEY MODELLERS

OR

6/23/00 - 6/25/00 —Brooks, OR (C) Y2K RC Helicopter Fun Fly. Site: Brooks Field. Rich Josephson CD, 2842 Tonia Circle Medford OR 97504 PH:541-779-2445. Special guest Mickey Crawley. Contest includes: novice, intermediate, advanced, expert, freestyle. BBQ great food! Autos & drags. Everyone welcome. For info contact Dennis Lafond e-mail tailrtr@pcez.com. Sponsor: CASCADE ROTARY WINGS

OR

6/25/00 —Salem, OR (A) PASS F5B for 601(JSO). Site: Sod Farm. Don Peszrecker CD, 5041 Casa Del Ray Dr Milwaukie OR 97222 PH:503-659-9624. 7 cell, 10 cell and unlimited. Sponsor: PORTLAND AREA SAILPLANE SOCIETY

OR

6/25/00 —Turner, OR (C) Mellon's Follies VIIII Model Airshow & Fun Fly. Site: Club Field. W. L. Pete Mellin CD, 1225 Hillendale Dr S Salem OR 97302 PH:503-363-1684. Fun fly will be for all types of pilots (expert to beginner) team type events w/buddy boxes allowed. This is the 9th annual and is designed to promote the sport of RC flying. Sponsor: SALEM RC PILOTS ASSN

PA

6/03/00 —McKean, PA (A) 26th Annual Great Lakes for 140, 142(JSO). Site: Millfair Rd. Victor Didelot CD, 2611 Breezewood Lane Erie PA 16506 PH:814-838-3263. Sponsor: ERIE MODEL AIRCRAFT ASSN

PA

6/03/00 - 6/04/00 —Sayre, PA (AA) 45th Annual Aeroguidance Society Precision Aerobatics Contest for 401, 402, 403, 404, 406(JSO). Site: Blue Swan Airport. Bob Noll CD, 2317 Acorn Dr Vestal NY 13850 PH:607-754-5279. Separate sportsman contests Sat & Sun (enter one or both). No weight limit in sportsman. P1 schedule only in FAI. Register on line at http://pages.prodigy.net/lkaras/aero/ Sponsor: AEROGUIDANCE SOCIETY INC

PA

6/04/00 —Selinsgrove, PA (A) Susquehanna Valley Modelers Fun Fly for 705(JSO). Site: Club Field. Robert Rachau CD, RR #1 Box 1721 Selinsgrove, PA 17870 PH:570-374-9372. Sponsor: SUSQUEHANNA VALLEY MODELERS

PA

6/10/00 —Cooperstown, PA (C-Restricted) Annual Maple Cave IMAA Chapter 80 Fly In. Site: Club Field. John Vogel CD, 906 Orchard Park Dr Gibsonia PA 15044 PH:724-444-6464. Sponsor: MAPLE CAVE FLYING CLUB

PA

6/10/00 - 6/11/00 —Nazareth, PA (C) LVRCS Electric Fly. Site: Club Field. Michael Stewart CD, 107 Taft Terr Washington NJ 07882 PH:908-689-6961. Open flying and fun events. Primitive camping on field, no hook ups. Sponsor: LVRCS

PA

6/11/00 —York, PA (C) Fun Fly. Site: Club Field. Steve Arnold CD, 1662 Third Ave York PA 17403 PH:717-843-1221. Y.A.R.C. club fun fly. Simple events - everyone competitive. Prizes to at least 5th place. Start time 1PM. Sponsor: YORK AREA RC CLUB

PA

6/11/00 —West Middlesex, PA (C) Hubbard Wingsnappers Fly In. Site: Burrows Road. Daniel Scott CD, 81 Westview Hubbard OH 44425 PH:330-534-1291. Sponsor: HUBBARD WINGSNAPPERS

PA

6/15/00 - 6/18/00 —Carmichaels, PA (AA) Brodak Fly In 2000 for 323, 324, 325, 326(JSO). Site: Brodak Flying Field. Bob Hunt CD, 209 Old Easton Rd Box 368 Stuckertown PA 18063 PH:610-759-8813. Additional events: classic stunt (B, I, A, E), old time stunt (B, I, A, E), profile stunt (B, I, A, E), speed limit slow combat, fun scale, cloom racing, Foxberg racing, all (JSO). Sponsor: BRODAK MANUFACTURING & DISTRIBUTING

PA

6/17/00 - 6/18/00 —Lenhartsville, PA (C) Tri County Giant Scale Fun Fly. Site: Club Field. Larry Smith CD, 322 N 7th St Lehighton PA 18235 PH:610-377-4941. Sponsor: TRI COUNTY WINGSNAPPERS

GIANT SCALE
FUN FLY
21 ST ANNUAL MEET
TRI-COUNTY WINGSNAPPERS
LENHARTSVILLE, PA. 19534
JUNE 17 & 18, 2000
AMA & IMAA SAT. 10-5
Sunday open flying
Swap Shop
Refreshments / Breakfast
Camping @ Christman Lake
ChristmanLake@aol.com
PH 610-562-3680
For information call:
CD Larry Smith
(POLAR HELI RESEARCH)
610-377-4941
Walter Gladney 610-683-6128
Dave Renninger
dave@early.com

PA

6/18/00 —Effort, PA (C) Father's Day Air Show. Site: Club Field. William Pitsko CD, 11 Turkey Ridge Rd Kunkletown PA 18058 PH:610-681-5499. Demo flying and vendor exhibit. Show time 1PM to 5PM. Free admission. Children's activities. Refreshments. For info contact Brick Quinn, PO Box 134 Mountainhome PA 18342 PH:570-595-7850. Sponsor: WEST END WINGS

PA

6/25/00 —Quakertown, PA (C) SAM 76 Contest. Site: Club Field. Dan Schneider CD, 3809 Midvale Ln Huntington Valley PA 19006 PH:215-947-1535. SAM 76 RC contest for 1/2A Tex, ABC Ign, ABC glow, ABC fuel allot, Brown Jr. elect LMR. For info Pete PH:215-635-0486 or pvandore@aol.com. Sponsor: BUC-LE/SAM 76

PA

6/25/00 —Tunkhannock, PA (C) Biplanes Over Pennsylvania. Site: Skyhaven Airport. Thomas Lowrie CD, RD #3 Box 153 Dalton PA 18414 PH:570-563-1445. Sponsor: LACKAWANNA AERO MODELERS

4TH ANNUAL MULTI-WING FESTIVAL
Sunday
June 25th
9am To 4pm



BIPLANES OVER PENNSYLVANIA
HOSTED BY THE
LACKAWANNA AERO MODELERS
SITE
SKYHAVEN AIRPORT, TUNKHANNOCK, PA.
ALL SCALES WELCOME
FOR INFORMATION CONTACT
TOM LOWRIE 717-563-1445 OR
SQUEAKL@EPIX.NET(LOWER CASE TEXT PLEASE)

SC

6/03/00 —Greenville, SC (C) Fly In. Site: Club Field. Tom Holmes CD, 9 Jervey Rd Greenville SC 29609 PH:864-233-1912. Flying starts when you arrive and ends when you leave. Pilot meeting at 10AM. Any size and type aircraft welcome. Field is located on Hwy 417 between Hwys 146 and 101. $5 landing fee. Sponsor: WESTERN CAROLINA RC

SC

6/03/00 - 6/04/00 —Woodruff, SC (A) Soaring Contest for 444(JSO). Site: Triple Tree Farm. Howard Keller CD, 6 Hibourne Ct Greenville SC 29615 PH:864-244-6160. Field is located 4 miles south of Woodruff on Hwy 221. Winch will be available the afternoon of 6/2/00. Awards will be given for total points. Sponsor: SOUTHEAST SOARING ASSN

SC

6/03/00 - 6/04/00 —Sumter, SC (C) Fly In. Site: Club Field. Vern Sheffield CD, 2564 Redwood Dr Dalzell SC 29040 PH:803-499-2746. Awards given for best of show, best military, best sport, best civilian, best trainer. Primitive camping available on site. Food & drinks available. Awards presented on Sun June 4 at 2PM. Landing fee $5. E-mail triplane@cpis.net. Sponsor: SUMTER MODEL AIRPLANE CLUB

SC

6/10/00 —York, SC (C) York County Flyers Heli Fun Fly. Site: Club Field. Robert Snyder CD, 770 Powell St Rock Hill SC 29732 PH:803-366-1044. Helicopters, helicopters, & nothing but helicopters. AMA required, food, drinks, pilots door prize & raffle prizes to be given away. 700' runway, covered pit area. 9AM till ?, landing fee $10. Sponsor: YORK COUNTY FLYERS INC

SC

6/10/00 —Easley, SC (C) BSRC Fly In. Site: Club Field. Tim Murrell CD, 257 Boundary Dr Pickens SC 29671 PH:864-855-2032. Awards for best bipe, sport, military, civilian & spectators choice. Concessions available. No channel 20. On site camping, no hook ups, restrooms available. Fly what you bring. Landing fee $5. Sponsor: BLACK SHEEP RADIO CONTROL CLUB

SC

6/10/00 —Gilbert, SC (C) The Lexington Larks Fly In. Site: Club Field. Glenn Temples CD, 144 Gravedigger Rd Lexington SC 29073 PH:803-957-7975. 150x600' grass runway. $10 landing fee includes hotdog or hamburger with soda. Awards for best military, civilian, wingspan, and so forth. Heli demo at lunch. Must have current AMA & follow rules. Sponsor: LEXINGTON LARKS

SC

6/10/00 - 6/11/00 —Latta, SC (AA) Hustedt Flying Foxes Pattern Classic for 401, 402, 403, 404, 406(JSO). Site: Club Field. Kirk Gray CD, 2603 Briarwood Dr Florence SC 29505 PH:843-662-7394. Camping available, no hook ups. Awards through 3rd place in each class. Excellent concessions available. Raffle. Field open for practice on Friday. Come join the fun. Entry fee $25. Sponsor: HUSTEDT FLYING FOXES

SD

6/18/00 —Beresford, SD (C) BARF Father's Day Fun Fly. Site: Beresford City Field. David Larsen CD, 204 E 4th Box 353 Alcester, SD 57001 PH:605-934-2434. Come and enjoy 400' of beautiful grass runway. Fun fly only, no events. $5 registration fee includes door prize. Lunch and beverages on the field. 9AM until dark. Field located 1 mile north and west of 4-way stop on Hwy 46. Sponsor: BERESFORD AREA RADIO FLYERS

TN

6/03/00 - 6/04/00 —East Ridge, TN (C) Big Bird Giant Scale Fly In. Site: Camp Jordan Park. Johnny Pritchett CD, 42 Crabtree Rd Rossville GA 30741 PH:706-861-5780. 375x75' grass runway. Pilots meeting 9AM, motels & campground within 1 mile of park. Concessions both days. For further info campjordan.com or e-mail at j-pri@msn.com. $10 landing fee. Sponsor: BIG BIRDS/EAST RIDGE AEROMODELERS

TN

6/10/00 —Henderson, TN (C) Magic Valley Fly In. Site: Club Field. Max Hurst CD, 465 North Ave Henderson TN 38340 PH:901-989-3508. Sponsor: MAGIC VALLEY AIR FORCE

TN

6/10/00 —Nashville, TN (C) Annual Hot Dog Fly In. Site: Cane Ridge Park. Don Perry CD, 3704 Anderson Rd Nashville TN 37217 PH:615-399-8310. Fly in for all types of aircraft. $10 landing fee. Contact CD at dplane4@ds.com for additional information. Sponsor: MIDDLE TENNESSEE RADIO CONTROL SOCIETY

TN

6/24/00 - 6/25/00 —Nashville, TN (A) Music City Helicopter Championship for 431, 432, 433, 434(JSO). Site: Cain Ridge Park. Tim Diperi CD, 1356 Caroline Circle Franklin TN 37064 PH:615-591-7399. Sponsor: VHS

Contest Calendar

TX

6/03/00 - 6/04/00 —Waco, TX (C) Big Bird Fly In. Site: Speegleville III. Charles Adams CD, PO Box 7821 Waco, TX 76714 PH:254-776-8335 d, 254-753-8332 e. Sponsor: HOTMAC

TX

6/03/00 - 6/04/00 —Abilene, TX (C) Abilene RC Society Annual Fun Fly. Site: Sea Bee Park. David Cramer CD, 2001 Edgemont Abilene, TX 79602 PH:915-695-8833. Limited to airplanes only - annual fun fly. Sponsor: ABILENE RC SOCIETY

TX

6/03/00 - 6/04/00 —Seguin, TX (AA) Tri-City 19th Annual Free Flight Contest for Cat III 101, 102, 103, 104, 124, 142, 153-154, 155(JSO). Site: USAF Aux Field. Frank Parmenter CD, 4106 Sequoia Trl E Georgetown TX 78628 PH:512-863-4926. This is a National Cup contest. 1/2A, A, B, C gas, P—30, Catapult glider, F1J, small field (010-020 gas, coupe, A-1glider). O.T. FF SAM ign(JSO). Sponsor: TRI-CITY FLYERS

TX

6/03/00 - 6/04/00 —Pasadena, TX (C) 3rd Annual GCRC Fun Fly. Site: Club Field. R. B. Roddy CD, 4103 Crimson Oak Ct Houston TX 77059 PH:281-476-6881. RV ok, no hook ups. Door prizes galore and raffle. All skill levels, all aircraft sizes and types welcome. Benefiting the GCRC youth program. $5 landing fee. Sponsor: GULF COAST RC CLUB

TX

6/03/00 - 6/04/00 —Houston, TX (AA) Pylon Race for 422, 424, 428(JSO). Site: Scobee Field. Dick Davidson CD, 16907 Calmtosh Houston TX 77084 PH:281-759-8842. Hard hats required. 2 days, 2 races. Sponsor: BAYOU CITY FLYERS

TX

6/04/00 —San Antonio, TX (C) Fun Fly 2000. Site: Covel Model Airpark. Richard Carlo CD, 402 Spaceway Dr San Antonio TX 78239 PH:210-656-0662. Three categories to compete - novice, sportsman and top gun. 1st to 3rd place trophies in each category with prizes to 5th place. Trainers to high performance planes welcome. Free food and drink. Register by 10AM. Rules and event maneuvers given on day of event. No entry fee. Sponsor: SAN ANTONIO PROP BUSTERS

TX

6/04/00 —Wheatland, TX (C) 8th Annual Texas Texaco Shootout. Site: Pyramid Acres. Tom Jozwiak CD, 3012 Lynnwood Dr Arlington TX 76013 PH:817-277-8768. 1/2A Texaco, 1/2A Scale, A Texaco, Brown Jr Texaco, Texaco (comb). Sponsor: FT WORTH PLANESMEN INC

TX

6/08/00 - 6/11/00 —Hearne, TX (C) Wings Over Texas 2000. Site: Hearne City Airport. Fred French CD, 1545 CR 213 Bertram TX 78605 PH:512-489-9044. Giant scale rally/giant scale unlimited air race, 80" mono, 60" bipe, 1/4 scale, all jets welcome. USRA sanction race, 7000' runway, dedicated flight lines & times, RV parking, some hook ups, concessions. Sponsor: EAGLE FIELD CLUB

TX

6/10/00 —Tyler, TX (C) Combat. Site: Club Field. Jerry Truell CD, 1618 Timberview Dr Tyler TX 75703 PH:903-561-3815 or truell@juno.com. One day combat event. RCCA open combat rules. Registration starts 10AM, cost $10. 600' grass strip, RV parking, no electricity, facilities including running water, hotels & food within 3/4 mile. Sponsor: TYLER MODELERS CLUB

TX

6/10/00 —Haskell, TX (C) Open House Fly In. Site: Model Airport. William Watson CD, 805 N 11th Haskell TX 79521 PH:940-864-3060. Plaques for best military and best civilian. Grab bags and raffle. Sponsor: TEXAS CHIEFS MAC

TX

6/10/00 - 6/11/00 —Nederland, TX (AA) South East Texas Pattern Championships for 401, 402, 403, 404, 405(JSO). Site: Club Field. Buddy Brammer CD, 2504 Canal St Nederland, TX 77627 PH:409-729-0476 e-mail buddyonrc@aol.com. Pattern Nats warm up. Overnite camping ok, no hook ups. Food & drinks available at site. AMA legal airplanes ok for Sportsman. Sponsor: MID COUNTY RC CLUB

TX

6/10/00 - 6/11/00 —Big Spring, TX (C) 18th Annual Fun Fly. Site: Club Field. Steve Gay CD, 1409 E 15th St Bg Spring TX 79720 PH:915-263-6148. Trophies for best military, best civilian, & best pilot. Raffle prizes & giveaways. On site RV parking w/hook ups. Concessions available. 2000' paved runway. Sponsor: BIG SPRING MODEL AIRCRAFT ASSN

TX

6/11/00 —Dallas, TX (A) Sailplane T4 for 442 and 444(JSO). Site: Eastfield College Campus. Lynn Williams CD, 9533 Losa Dr #2 Dallas, TX 75218 PH:214-321-3005. Sponsor: SOARING LEAGUE OF NORTH TEXAS

TX

6/11/00 —Temple, TX (C) 10th Annual Temple Fun Fly. Site: McGregor Park. Don Hinkle CD, 11591 Pritchard Rd Temple TX 76501 PH:817-982-4746. 1st event timed loops and rolls. 2nd event spot landing and balloon bust. Sponsor: TEMPLE AERO MODELERS

TX

6/11/00 —Corpus Christi, TX (C) CCRC Fun Fly. Site: Club Field. Ron Cooper CD, 114 Mesquite Corpus Christi, TX 78401 PH:361-852-0868. Sponsor: CORPUS CHRISTI RC CLUB

TX

6/14/00 —Benbrook, TX (C) Helmer's Old Farts 4 Stroke Fly In. Site: Club Field. Helmer Johnson CD, 5812 Wales Ave Ft Worth TX 76133-2712 PH:817-292-4076. Limited to 4-stroke powered planes. No concession stand. Bring your lunch and drinks. Yes, this is on a Wednesday! Sponsor: FORT WORTH THUNDERBIRDS

TX

6/17/00 —San Antonio, TX (A) Handlaunch Thermal, Last Down for 441(O). Site: Club Field. Carl McBurnett CD, 7506 Legend Point Dr San Antonio, TX 78244 PH:210-662-9503. Four rounds hand launch, 3 rounds 1.5 meter thermal w/landing points, two up , last down, elimination from up starts, first place Dartar kit, 2-3 tools. Sponsor: HEART OF TEXAS SOARING SOCIETY

TX

6/17/00 —Sherman, TX (C-Restricted) 8th Annual Big Bird. Site: Club Field. Kenneth Taylor CD, Rt 1 Box 262 Bonham TX 75418 PH:903-583-8751. $10 landing fee. Free lunch for pilots and spotters. Sponsor: TEXOMA RC MODELERS

TX

6/17/00 - 6/18/00 —Odessa, TX (C) Odessa Propbuster Swap Meet & Fun Fly. Site: Club Field. Gilbert Beauchamp CD, 4100 E 53rd #1722 Odessa TX 79762 PH:915-362-3051. One mans junk is another man's treasure. There will be a Futaba 8UAF super to raffle off, $1 per ticket, $5 for 6 tickets. Bring something to fly and have a great time. Lunch will be served at 12 noon June 17th. Check web page for more info http://www.users/nwol.net/~crash2/. Sponsor: ODESSA PROP BUSTERS

TX

6/17/00 - 6/18/00 —Amarillo, TX (A) Summer Rally 2000 for 328, 329, 330 (JSO). Site: Thompson Field. Gary Minor CD, 2913 Trigg Amarillo, TX 79103 PH:806-371-6505. Sponsor: PLANESMAN MAC

TX

6/23/00 - 6/24/00 —Kingsbury, TX (C) 11th Cub Fly. Site: Kingsbury Aerodome. Bill Shupe CD, 12565 FM 3353 Kingsbury TX 78638 PH:830-303-1570. Bring all cub & cub like RC models. Awards for largest & smallest flying, most scale-like, most aerobatic & pilots choice. Plentiful participation prizes. $10 entry. Open noon Friday, 9AM-2PM Sat. Primitive camping on site, motels close by. Sponsor: TRI CITY FLYERS

TX

6/24/00 - 6/25/00 —Arlington TX (AA) RC Scale Contest for 511, 512, 520(JSO). Site: Club Field. Tim Lovett CD, 536 Holder Dr Hurst TX 76053 PH:817-268-7797. New paved runway, gift certificates, $15 entry, special for early registration. Sponsor: MID CITIES RC

TX

6/25/00 —New Waverly, TX (A) Sailplane Contest for 444(JSO). Site: Ray Brickhouse Flying Field. Albert Dalnoki CD, PO Box 635 Willis TX 77378 PH:936-344-6025. Electric winches & retrievers furnished by CD. 10 minute duration and 4 minute distance. Closed course each 1/2 lap counts. Sponsor: TRI-COUNTY BARNSTORMERS

VA

6/03/00 —Isle Of Wight, VA (C-Restricted) Newport News Giant Eagles 7th Fly In. Site: Turner Field. John "Eddie" Israel CD, 10 Patton Dr Newport News VA 23606 PH:757-930-3551 lddy@widowmaker.com 175x600' grass runway. Take Rt 10/32 south of Benns Church VA (2.6 mi) or north of Chuckatuck, VA (2.6 mi) turn east on Dirt Rd next to two silos and barn. $5 landing fee. Sponsor: ISLE OF WIGHT RC CLUB

VA

6/03/00 - 6/04/00 —Hurleyville, VA (A) CASA 2 Meter for 442(JSO). Site: Frank Thompson Airstrip. Phil Barnes CD, 13610 Chrisbar Ct Germantown MD 20874 PH:301-916-9574. Sponsor: CAPITAL AREA SOARING ASSN

VA

6/10/00 —Arcola, VA (C) NVRC Spring Fun Fly. Site: Club Field. Robert Burnett CD, 400 Woodgrove Ct Herndon VA 20170 PH:703-742-9682. Sponsor: NORTHERN VA RC CLUB INC

VA

6/10/00 - 6/11/00 —Salem, VA (AAA) Atlantic Helicopter Championships for 431-434, 518(JSO). Site: Club Field. Marshall McClung CD, 2722 Fawn Rd SW Roanoke, VA 24015 PH:540-989-9494. Field open June 9 for practice. Sponsor: ROANOKE VALLEY RC

VA

6/17/00 - 6/18/00 —Warrenton, VA (AA) 6th Annual Blue Ridge Pattern Classic for 401-406(O). Site: Club Field. William McMullen CD, 9289 Springs Rd Warrenton VA 20186 PH:540-347-5871. Private 3000' grass strip, full scale aerobatics aircraft on site. Camping available. Sponsor: F.A.R.M. CLUB

VA

6/18/00 —Winchester, VA (C) Battle Of Winchester - 2610 Battle #2. Site: Club Field. Ira Lowe CD, 308 Treadwell St Berryville VA 22611 PH:540-955-3953. Sponsor: PLANE CRAZY RC

VA

6/22/00 - 6/25/00 —Danville, VA (C-Restricted) The Meeting Of The Giants. Site: Regional Airport. John Estlow CD, 426 Martin Ave Danville, VA 24541 PH:804-799-6104. 80" wingspan, 60" span for biplanes or quarter scale. $10 landing fee, $5 per day. Sponsor: DANVILLE AEROMODELERS

VA

6/23/00 - 6/25/00 —Harrisonburg, VA (C) 16th Ray Gordon Memorial Jumbo Fly In. Site: Club Field. Bill Link CD, 315 Emerald Dr Harrisonburg, VA 22801 PH:540-438-1197. Sponsor: VALLEY RC FLYING CLUB

WA

6/03/00 - 6/04/00 —Ferndale, WA (C-Restricted) 11th Annual Big Bird. Site: Club Field. Doug Bellevr CD, 819 Timberlake Way Bellingham WA 98226 PH:360-671-1530. Landing fee $10. Registration starts at 8AM Sat. Overnight camping available, no hook ups. Directions west from I5 exit 260 to Haxton Rd (Texaco), south to Red River Rd, west 3/4 of a mile. Monoplane 80" min, bi-plane 60", 1/4 scale okay. Soonsor: BELL-AIR FLYERS

WA

6/03/00 - 6/04/00 —Chevelah, WA (C) All Club Fly In. Site: Quartz Mtn Sod Farm. Dick Carson CD, 3029 W Holfman Spokane WA 99205-1636 PH:509-327-4579. Flying from grass field - not conductive to small wheels. Parking for RV & trailers, no hook ups. Big birds work well. Sponsor: BARONS MODEL CLUB

WA

6/03/00 - 6/04/00 —Richland, WA (C) 2000 Scale Soaring Fun Fly. Site: Eagle Butte. Wil Byers CD, 3448 Eastlake Dr W Richland WA 99353 PH:509-627-5224. Feature event for scale sailplanes of vintages, modern & PSS design (wood & fiberglass composite models only). An after hours wine tasting party & awards included. Entry fee $20. Sponsor: MID-COLUMBIA RC SOARERS/S & E MODELER MAGAZINE

WA

6/10/00 - 6/11/00 —Spanaway, WA (C) SAM 8 Annual. Site: Hart's Lake Prairie. Edwin Lamb CD, 15911 SE 42nd Place Bellevue, WA 98006 PH:425-747-7806. FF events - 30 sec antique, old timer fuselage (ABC comb), old timer pylon (ABC comb), sm old timer rbr - fuse stick, lg old timer rbr - fuse stick, commercial rbr, 020 replica (2 min max, red e.r.), 1/2A Tex, 1/2A Nostalgia, Nostalgia (ABC comb), Croselto's pee wee Tex, time target. RC assist - ABC (glow ign,elec comb), 1/2A Tex, RC Tex. Sponsor: SAM 8

WA

6/10/00 - 6/11/00 —Richland, WA (C) TCRCM Big Bird Fly In. Site: Orv Park. Ed Fisher CD, 1769 Boston St Richland, WA 99352 PH:946-9770. Sponsor: TRI CITIES RC MODELERS

WA

6/10/00 - 6/11/00 —Deerpark, WA (AA) Baron's Pylon Race for 422, 424, 428(JSO). Site: Club Field. Mike Bergan CD, N3922 Locust Spokane WA 99206 PH:509-928-1597. 424 to be flown with A.P.R.A.motor rules only. Sponsor: BARONS

WA

6/17/00 —McKenna, WA (A) Fun Scale 520 for 520(JSO). Site: Pfeiffer Field. David A Turner CD, 17311 6th Ave Crt E Spanaway, WA 98387 PH:253-537-9613. Sponsor: MT RAINIER RC SOCIETY

WA

6/17/00 - 6/18/00 —Lakewood, WA (A) NW Speed Champs for 301, 302, 303, 304, 305, 307, 308, 309, 310(JSO). Site: Clover Park Tech School. Victor Lichtenberg CD, 5903 89th St Ct E Puyallup, WA 98371 PH:253-841-7681. Sponsor: NORTH AMERICAN SPEED SOCIETY

WA

6/23/00 - 6/25/00 —Richland, WA (C-Restricted) 7th Annual TCRCM Float Fly. Site: Wye Park Boat Launch. George Vargo Jr CD, 219 Indian Ct Richland WA 99352 PH:509-375-0098. The northwest's premier RC float pond is ready for the new millennium! Come fly on the back waters of the beautiful Columbia River. Overnights RV and campers welcome. No hook ups. $5 landing fee. Free lunch on Saturday and Sunday. Sponsor: TRI-CITY RC MODELERS

WA

6/24/00 - 6/25/00 —Mt Vernon, WA (AA) Thermal Search I for 442 and 444(O). Site: Kamb Rd. Deene Almvig CD, 12170 Bayhill Dr Burlington WA 98233 PH:360-757-4060. R.E.S. to be flown as well. Sponsor: TERCEL GLIDER CLUB

WA

6/24/00 - 6/25/00 —Rainier, WA (C) Fly Em All Fly In. Site: Club Field. Bill Weller CD, Box 473 Yelm WA 98597 PH:360-894-3951. Sponsor: PUGET SOUND RC FLYERS

WA

6/24/00 - 6/25/00 —Sumner, WA (C) 18th Annual Electric Fly In. Site: Club Field. Bernard Cawley Jr Cd, 29838 48th Ave S Auburn WA 98001 PH:253-839-9157. Two days to open flying for all electric powered flying models. Fun informal events based on participant turn out. Sponsor: RADIO AEROMODELERS OF SEATTLE

WA

6/24/00 - 6/25/00 —Snohomish, WA (A) Bladder Grabber XXIII for 328(JSO). Site: Harvey Airport. Jeff Rein CD, 14326 102nd Ave NE Bothell WA 98011 PH:425-823-6053. Triple elimination fast combat tournament. $1000 cash and prizes. Sponsor: JEFF REIN

WA

6/25/00 —Redmond, WA (C) Marymoor RC Club Open House. Site: Marymoor Park. Thomas Berry CD, 3401 169th Ave NE Bellevue WA 98008-2065 PH:425-883-8269. Sponsor: MARYMOOR RC CLUB

WI

6/03/00 —Marshfield, WI (C) 14th Annual Fly In. Site: Marshfield Airport. Jim Rasmussen CD, 307 W 5th St Marshfield WI 54449 PH:715-387-6561. Sponsor: MID STATE AEROGUIDANCE CLUB

WI

6/03/00 —Green Bay, WI (C) Big Bird. Site: Club Field. Gary Doeren CD, 1169 Crooks Green Bay WI 54301 PH:920-435-2692. Sponsor: GREEN BAY MODEL AIRPLANE CLUB

WI

6/03/00 - 6/04/00 —Menomonee Falls, WI (AA) Tamarack Challenge for 401, 402, 403, 404, 406(JSO). Site: Club Field. Michael Dorna CD, 3212 Lower Woodland Dr Colgate WI 53017 PH:262-628-3502. Sponsor: FLYING ELECTRONS

WI

6/04/00 —Oshkosh, WI (C) RC Big Bird Fly In. Site: Club Field. Bob Sonnleitner CD, 724 W Gruenwald Ave Oshkosh, WI 54901 PH:920-231-6153. 80", 60" rule or true 1/4 scale. Sponsor: WINNEBAGO RC FLYERS INC

WI

6/10/00 —Oconto, WI (C) Oconto Copperfest AMA Fun Fly. Site: Oconto Airport. Bob Bannow CD, 2924 Gilbert St Marinette WI 54143 PH:715-735-3696. All aircraft sizes welcome, but large aircraft are preferred. Landing fee $5. Flying site is grass runway at Ocono Airport, approx 40 mi north of Green Bay on Hwy 41, then approx 1 mi west of Hwy 41 at Oconto on McDonald St to Airport Rd. There will be open flying the day before the sanction date. Camping, w/out hookups, and refreshments available on site. Reg 8AM, flying until 5PM. Sponsor: NORTHERN AREA RADIO CONTROL

WI

6/10/00 - 6/11/00 —Wisconsin Rapids, WI (C) River Valley Electric Meet III. Site: Club Field. Richard Ida Jr CD, PO Box 1013 Wisconsin Rapids, WI 54495 PH:715-325-5309. Club field located 18 mi south of Stevens Point on I39 then west on Cty W (exit 143) 8 mi or 1 mi south of Wis Rapids on Hwy 13 then 9 mi east on Townline Rd. Food & beverages, primitive camping, pilots raffle. E-mail inspector@tznet.com for info. Sponsor: RIVER VALLEY FLYERS

WI

6/11/00 —Rice Lake, WI (C) Annual Fly In. Site: Club Field. Douglas Zimmer CD, 23 E Slocumb St Rice Lake WI 54868 PH:715-234-4856. RC fly in to help celebrate a local celebration. Only requirement is to have fun. Sponsor: RICE LAKE MAC

WI

6/11/00 —Appleton, WI (C) Pylon Race. Site: Club Field. Carlton Brown CD, N368 Carols Ln Appleton WI 54915 PH:920-731-1072. Sponsor: VALLEY AEROMODELERS

WI

6/17/00 —Madison, WI (C-Restricted) 6th Annual Giant Scale Fly In. Site: Kettle Field. LeRoy Stuczynski CD, 4417 Maryland Dr Madison WI 53704 PH:608-249-9517. IMAA & AMA rules will be followed. 80" mono, 60" bipe or true 1/4 scale. IMAA and AMA membership required (on site sign up available). Pre-flight safety inspection, $5 landing fee. Refreshments/food on site. Sponsor: SCREAMIN EAGLES

WI

6/17/00 —Green Bay, WI (A) Annual Sailplane for 442(JSO) and 444(J)(S)(O). Site Club Field. Robert Hawkins CD, 1120 Elizabeth R1, L2 Green Bay WI 54302 PH:920-437-4399. This is a Wisconsin state sailplane contest. Sponsor: GREEN BAY MODEL AIRPLANE CLUB

WI

6/18/00 —Germantown, WI (AA) Wisconsin State Stunt & Scale Championship for 323(J)(O) and 324, 325, 326, 509, 521(O). Site: Germantown High School. Peter Mick CD, W70 N 1010 Hampton Ct Cedarburg, WI 53012 PH:262-377-6137. Sponsor: CIRCLEMASTERS FLYING CLUB

Contest Calendar

WI
6/18/00 —Hilbert, WI (C) Calumet Flyers Open House. Site: Club Field. Fred Scholz CD, 21415 Ucker Point Creek Rd Kiel WI 53042 PH:920-894-3713. Free pilot raffle. One raffle ticket for every flight. Engine, kit, and other prizes for pilots. Free glue for each reg pilot. 50/50 raffle. Food & refreshments on site. Camping available, no hook ups. Sponsor: CALUMET FLYERS

WI
6/25/00 —Fond du Lac, WI (C) Fond du Lac Aeromodelers Assn Fly In. Site: Club Field. Daniel Zebell CD, 1103 West 7th Ave Oshkosh, WI 54901-5737. PH:920-233-8575. $5 landing fee, overnight primitive camping, food & beverage available on site. Motels available 2 miles from airfield. Field located on US Hwy 151 approx 2 miles south of US 41. Flying from 9AM to 4PM. Sponsor: FOND DU LAC AEROMODLERS ASSN

WY
6/03/00 - 6/04/00 —Gillette, WY (C-Restricted) Big Bird Fly In. Site: Club Field. Nolan Bartz CD, 1301 Buckskin Dr Gillette, WY 82716 PH:307-682-5136. Saturday night BBQ, food & beverages available. Primitive RV space available. IMAA rules apply. Sponsor: GILLETTE SAGEHOPPERS

WY
6/10/00 - 6/11/00 —Powell, WY (C) Russ Kniefel Memorial. Site: Powell's Field. Wilbur Higgins CD, 305 South Day St Powell, WY 82435 PH:307-754-3832. Sponsor: SAGEBRUSH HOPPERS

JULY

AK
7/01/00 - 7/03/00 —Fairbank, AK (C) Alaska Water N Wheels Statewide Championships. Site: 9 Mile Old Richardson. Ruben Clayton CD, Box 210 Ester AK 99725 PH:907-479-3547. Fun fly and electric speed 400 modified intermediate pattern. Sponsor: MIDNIGHT SUN RC CLUB

AL
7/08/00 - 7/09/00 —Huntsville, AL (C) Rocket City Radio Controllers Big Bird Fly In. Site: Trey Wilbourn Field. Chuck Facemire CD, 2309 Dogwood Ln Huntsville, AL 35810 PH:256-539-0828. 500'x50 paved runway, large grass landing area. 10 trophies 1-3 best military, 1-3 best gas powered sport plane, 1-3 best glow powered sport plane, CD choice (best of show). Must fly to win trophies. AMA only required. Sat evening BBQ, free to registered pilots (all others $8). Door prizes for pilots only. Covered picnic area, spectator seating and pilot area, casual & test flying 7 July. Event 9 till dark each day. RV welcome, no hook ups, $10 entry fee. 80" mono, 60" bipe, true 1/4 scale. No gliders or helis. Soonsor: ROCKET CITY RADIO CONTROLLERS

7th Annual
The Flagstaff Flyers Fun Fly
BeatThe Heat Fun-Fly
July15 &16



*Giant Raffle...RV Parking
*Pre-Registration $5.00
*Pilots Only Raffle
Contact CD- Chuck Colwell
520527-9114
Email - ecolw41555@aol.com
Flagstaff, Arizona

CA
7/08/00 —Carson, CA (A) SULA Monthly for 442 and 444(JSO). Site: Club Field. Browne Goodwin CD, 654 Ashland Ave Santa Monica, CA 90405 PH:310-392-5352 e-mail brownecg@aol.com. Sponsor: SOARING UNION OF LOS ANGELES

CA
7/08/00 —Castaic, CA (C) Canyon Crosswinds Electric Fun Fly. Site: Castaic Lake. Steve Clambrone CD, 27715 Wakefied Rd Castaic CA 91384 PH:661-294-9547. Come and enjoy the fun of electric powered model airplanes. Pilots drawing, awards, and food. Sponsor: CANYON CROSSWINDS RC CLUB

CA
7/08/00 —Davis, CA (A) RC Sailplane Contest for 444(JSO). Site: Yolo County Park. Joan Nolte CD, 6300 Edgerton Way Carmichael CA 95608 PH:916-966-0857. Unlimited sailplane class. Expert, sportsman, and novice pilot classes. Sponsor: SACRAMENTO VALLEY SOARING SOCIETY

CA
7/08/00 - 7/09/00 —Madera, CA (C-Restricted) Giant Scale Fly In. Site: Club Field. Ferron Gapen CD, 2135 Vartikian Clovis, CA 93611 PH:559-299-1021. Flying site located 3 miles west of intersection of Hwy 41 and Avenue 12 in Madera or 9 miles east of intersection of Hwy 99 and Ave 12 in Madera. Sponsor: FRESNO RADIO MODLERS

CA
7/09/00 —San Diego, CA (A) Judge John Menard 13th Annual Two Meter World Challenge for 442(O). Site: Montgomery Waller Park. Schuyler Hoffman CD, 707 Cordova St San Diego CA 92107 PH:619-226-2670. Three events, five minute thermal duration, man on man competition. Pilots meeting 8:45AM. Entry fee $5. Twelve volt winches, grass field. Sponsor: THERMAL PILOTS ASSN INC

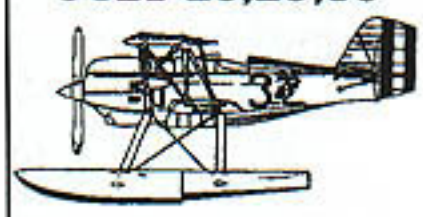
CA
7/16/00 —Los Angeles, CA (C) T-6 Race. Site: Woodley Park. Chris Hoyer CD, 21051 Gresham #302 Canoga Park CA 91304 PH:818-709-1551. Sponsor: SAN FERNANDO VALLEY FLYERS

CA
7/16/00 —San Diego, CA (AMA Record Trial) Orbiteers Monthly for 101, 102, 103, 104, 124, 142, 153(JSO). Site: Brown Field. Robert Thompson CD, 466 Broadway #31 Chula Vista CA 91910 PH:619-476-1083. Sponsor: SAN DIEGO ORBITEERS

CA
7/23/00 —Sacramento, CA (C) Air Combat - Foxtrot. Site: Club Field. Jeff Weiss CD, 14 Shady Lake Ct Sacramento CA 95834 PH:916-925-4917. Sponsor: SACRAMENTO AREA MODELERS/AIR-KILL PRODUCTS

CA
7/28/00 - 7/30/00 —Chester, CA (C) 25th Annual Lake Almanor Water Fun Fly. Site: Lake Almanor. Doug Campbell CD, 769 Lorinda Ln Chico CA 95973 PH:530-342-4836. Help us celebrate! Come fly at our 25th annual Lake Almanor water fun fly. For RC aircraft capable of water take off & landing. Quiet mufflers mandatory. Nearby camping available. Sponsor: BUTTE RC CLUB INC

BUTTE R/C CLUB
CHICO,CA
25th ANNUAL
LAKE ALMANOR
WATER FUN-FLY
JULY 28,29,30



CONTACT:
DOUG CAMPBELL (530) 342-4836

CA
7/29/00 - 7/30/00 —Woodland, CA (C) Wings Of Victory. Site: Woodland Cavis Field. Monty Welch CD, 154 Deerglen Circle Vacaville CA 95687 PH:707-451-1842. For fun! Show off your appropriately painted WWII warbird. No hassle, no pressure, just have fun. 42x600' runway. 30x600' grass runway alongside main runway. Hot food, drinks, restroom, campers, no hook ups. Lake for seaplane. Special trophy for best multi engine plane. Sponsor: WOODLAND/DAVIS AEROMODELERS

CA
7/30/00 —S El Monte, CA (C) RC Combat (RCCA 2105, 2610, & Open). Site: Whittier Narrows. John Krohn CD, 11227 Hadley St Whittier CA 90606 PH:562-692-4177. Sponsor: SGVRCL

CA
7/30/00 —Los Angeles, CA (C) Fun Fly. Site: Woodley Park. Chris Hoyer CD, 21051 Gresham #302 Canoga Park CA 91304 PH:818-709-1551. Sponsor: SAN FERNANDO VALLEY FLYERS

CO
7/01/00 - 7/03/00 —Denver, CO (A) MMM FAI Annual for 150, 151, 152(JSO). Site: Club Field. Ken Phair CD, 3022 S Yamell Ct Denver CO 80231 PH:303-750-6320. Sponsor: MAGNIFICENT MOUNTAIN MEN

CO
7/01/00 - 7/02/00 —Aurora, CO (A) Pylon Race for 424, 428(JSO). Site: Club Field. Tom Neff CD, 424 Oakland St Aurora CO 80010 PH:303-366-3253. Q500 race using AMA 424 sport, APRA rules (expert & sportsman) & AMA 428 Q500 Nelson & Jett Race starts at 8AM sharp. Test flights at dawn to 7:30. 3 pole race (J)(S)(O). Sponsor: MILE HIGH RC CLUB

CO
7/08/00 - 7/09/00 —Littleton, CO (AA) Jefco Aeromodlers IMAC 2000 for 411(J)(SO), 412, 413(JSO). Site: Chatfield State Park. Jim McManus CD, 5452 Hawthorn Trail Littleton CO 80125 PH:303-973-5204. 1) 3 minute freestyle per class. 2) unknown sequences for 412, 413. Sponsor: JEFCO AEROMOD'LERS

CO
7/08/00 - 7/09/00 —Loveland, CO (AA) Love-Air Pattern Meet for 401, 402, 403, 404, 406(JSO). Site: Club Field. Darwin Idler CD, 2718 Stagecoach Ct Ft Collins CO 80526 PH:970-225-2431. 600x50' paved runway, camping, no hook ups. Saturday morning training session, more info on the web http://www.fortnet.org/loveairrc. Sponsor: LOVE-AIR RC

CO
7/15/00 —Colorado Springs, CO (A) Up Chuck for 441(O). Site: Club Field. Austin Cleis CD, 8465 Pine Cone Rd Colorado Springs CO 80908 PH:719-495-3177. Sponsor: PIKES PEAK SOARING SOCIETY

CO
7/15/00 —Westcliffe, CO (C) Surf & Turf (Surf Only). Site: Lake DeWeese. Charles Abbate CD, 3215 Winston Pueblo, CO 81005 PH:719-561-8379. Beautiful scenery, beach area, parking, great water. Sponsor: SKY CORRAL RC CLUB

SKY CORRAL
SURF FUN-FLY
Lake DeWeese
Westcliffe CO.
July 15
N/W Area
Hwy.69/Copper Gulch
Rd.
ALL AMA Welcome!
CD-C.Abbate
(719)561-8379

CO
7/22/00 - 7/23/00 —Colorado Springs, CO (C) Pikes Peak Helicopter Round Up. Site: Judge Orr Field. Steve Bygren CD, 2822 Front Royal Dr Colorado Springs, CO 80919 PH:719-599-3612. Fun fly events for beginners and advanced pilots. Visit www.hobbyvault.com/pikespeak.htm $10 landing fee. Static displays and night flying demos. Sponsor: PIKES PEAK RADIO CONTROL CLUB

CO
7/23/00 —Colorado Springs, CO (A) Height Of Season for 444(O). Site: Club Field. Austin Cleis CD, 8465 Pine Cone Rd Colorado Springs CO 80908 PH:719-495-3177. Sponsor: PIKES PEAK SOARING SOCIETY

CO
7/23/00 —Denver, CO (A) MMM Monthly for Cat II 101, 102-105, 120, 140-142, 150-152(JSO). Site: Club Field. Roland Solomon CD, 2280 S Zang Ct Lakewood CO 80228 PH:303-989-9998. Above events plus MMM slow open power. Sponsor: MAGNIFICENT MOUNTAIN MEN

CO
7/23/00 —Silverthorne, CO (C) Team Teke Silent Fun Fly. Site: Lost Creek. Bruce Stenulson CD, PO Box 69 Fairplay CO 80440 PH:719-836-2489. Electric & sail fun fly at 8400 feet elevation. Dry camping available. Move in and open silent flying available Sat 22. Lunch available Sunday. E-mail teamteke@bwn.net for more info. Sponsor: SPARCS

CO
7/29/00 - 7/30/00 —Fredrick, CO (C) W.A.R. (Warbirds Along the Rockies). Site: Club Field. Greg Tiernan CD, 1258 Milner Ln Longmont, CO 80503 PH:303-776-7445. All planes must be finished in military markings and flown in service during WWI, WWII, Korean War, Vietnam and Desert Storm. Sponsor: LONGMONT AIRCRAFT MODELERS ASSN

COLORADO
TeamTeke
1ST Annual Electric/Sail
Silent Fun Fly @ 8400'
Sunday July 23, 2000
Move in and open silent
flying available Sat. 22
Lost Creek Airpark
Silverthorne, Colorado
Info: Ron 970-262-6312
eves. or email
teamteke@bwn.net

CT
7/02/00 —Rocky Hill, CT (AA) SAM 7 Summer OT FF Rally for 124 and 142(JSO). Site: Turf Farm. Nick Notte CD, 382 Bloomfield Ave W Hartford, CT 06117 PH:860-236-5144. Pln gas, cab gas, .02 rep, antique, nost gas, rubr stk, rubr cab, rubr scl, OTHLG, OT cat, baby ROG, twn push, OT towl, Jim Allen. Sponsor: SAM 7

CT
7/09/00 —Ellington, CT (C-Restricted) Dawn Patrol Fly In. Site: Greene Rd. Paul Savastano CD, 54 Discovery Rd Vernon CT 06066 PH:860-872-6303. CT I-91 exit 45 east on Route 140. Look for signs. AC must be IMAA legal WWI or golden era. Sorry no cubs. Sponsor: NORTHERN CT RC CLUB

CT
7/14/00 - 7/16/00 —Woodstock, CT (C) Warbirds Over Woodstock. Site: Woodstock Airport. Ron Gagner CD, 150 Southbridge Rd N Oxford MA 01537 PH:508-987-0184. Fun fly restricted to military fun scale RC aircraft. Planes must be in military colors - bi-planes to jets. Sponsor: WOODSTOCK RC FLYERS

CT
7/22/00 —Salem, CT (C) Electric Fun Fly. Site: Club Field. Richard Wilkins CD, 116-3 Blood St Lyme CT 06371 PH:860-434-1211. Fun fly for electric powered aircraft. $2 landing fee. Sponsor: RC PROPBUSTERS CLUB

CT
7/23/00 —North Stonington, CT (C) Connecticut Invitational Combat Tournament. Site: Recreation Commisson Field. Gerry Pompeii CD, 39 Oakwood Ln Columbia CT 06237 PH:860-228-4207. Formula GX combat is speed limit control line combat (73 mph) flown in a rounds format. Rules available upon request.

CT
7/30/00 —Rocky Hill, CT (AA) SAM 7 Fall 99 Rally for 124 and 142(JSO). Site: Turf Farm. John Stott CD, 8 Bradley Ln Sandy Hook, CT 06482 PH:203-426-5190. Pln gas, cab gas, .02 rep, antique, nost gas, rubr stk, rubr cab, rubr sd, OTHLG, OT cat, baby ROG, twn push, OT towl, Jim Allen. Sponsor: SAM 7

DE
7/06/00 - 7/09/00 —Bear, DE (C-Restricted) Warbirds Over Delaware. Site: Lums Pond State Park. David Malchione CD, 1161 W Balt. Pike Kennett Square, PA 19348 PH:610-444-3855. Limited to giant scale military aircraft in a military paint scheme. No landing fee, food & bev. Lums Pond State Park - I95 take exit 1 to 896 south go 6.2 miles to Rt 71, make left and field is on your left. Sponsor: DELAWARE RC

FL
7/08/00 - 7/09/00 —Palm Bay, FL (AA) Florida State Championship for 101, 102, 103, 104, 105, 124, 140, 142(JSO), 120, 122, 150, 151, 152, 153(SO). Site: Club Field. Michael Jordan CD, 3813 Muirfield Ct Palm Harbor FL 34685 PH:727-781-4919. Sponsor: FLORIDA MODELERS ASSN

FL
7/16/00 —Palm Bay, FL (AMA Record Trial) Record Trials for Cat III 101, 102, 103, 104, 105, 106, 107, 120, 121, 122, 124, 125, 126, 127, 128, 129, 130, 140, 142, 150, 151, 152, 153, 154, 155, 156, 157(JSO). Site: Club Field. Ron Sharpton CD, 1290 Country Rd Daytona Beach, FL PH:904-767-6138. Sponsor: FLORIDA MODELERS ASSN INC

GA
7/22/00 - 7/23/00 —Dallas, GA (C) 4th Hotlanta Senior Pattern Champs. Site: Club Field. Mickey Walker CD, 3121 Northview Pl Smyrna GA 30080 PH:770-435-8158. All senior pattern assn events will be flown, except antique class. Contestants must be senior pattern assn and AMA members. Sponsor: NORTH GA FLYING CIRCUS CLUB

Contest Calendar

IA
7/08/00 - 7/09/00 —Des Moines, IA (C-Restricted) 312th Giant Sqd IMAA Fly In. Site: Club Field. Ed Miles CD, 4229 65th St Urbandale, IA 50322 PH:515-276-9058. Sponsor: DES MOINES MODELAIRES

IA
7/09/00 —Lake Mills, IA (C) July Jubille Fly In. Site: Lake Mills Airport. Delane Behr CD, 208 S 4th Ave W Lake Mills IA 50450 PH:515-592-4195. Lake Mills Airport 1 mile east of Care Center on South 10th Ave east. No landing fee, no contests, just fun. Drawing for prizes. Food available. Sponsor: JULY JUBILEE COMMITTEE

IA
7/30/00 —New Hartford, IA (A) New Hartford Combat Days. Site: Club Field. Robert Nelson CD, 433 Ardmore Waterloo IA 50701 PH:319-233-4771. 75 mph combat - u-control. Open RC combat - local rules. Sponsor: BLACKHAWK RC PILOTS

ID
7/22/00 - 7/24/00 —Moscow, ID (AA) Kibbie Dome Annual 2000 for Cat IV 201-220, 627(JSO). Site: Kibbie Dome. Andrew Tagliatico CD, 10039 SW Quail Post Road Portland OR 97219 PH:503-452-0546. Sponsor: INDOOR MODELERS NORTHWEST

IL
7/01/00 - 7/02/00 —Hoffman Estates, IL (AA) Tri Village RC'ers Pattern Contest for 401-406(JSO). Site: Shoe Factory Road. Larry Auer CD, 555 E Cunningham Dr Palatine IL 60067 PH:847-359-0432. Sponsor: TRI VILLAGE RC'ERS

IL
7/02/00 —Batavia, IL (AA) Fermi Stunt 2000 for 323, 324, 325, 326(JSO). Site: Club Field. Alan Hahn CD, 2 S 111 Apache Dr Wheaton IL 60187 PH:630-653-6843. Events to be flown off 1" - 2" rolled grass fields. Registration starts at 8:30AM, events at 10AM. No flying before 8AM. Enter site from Kirk Rd entrance. E-mail contacts ahahn@fnal.gov or fkrueger@fnal.gov. Sponsor: FERMILAB BARNSTORMERS

IL
7/02/00 —Elk Grove Village, IL (C) Elk Grove 200 Race. Site: Ned Brown Meadow. Bud Bodzioch CD, 1800 Trail Ridge Arlington Heights IL 60004 PH:847-506-0096. Fox .35 race (JSO) tree-town rules. Stock Fox stunt .35, 2 oz tank, sport/stunt kit, 100 lap elims, 200 lap final. 10% fuel will be provided. Sponsor: CHICAGOLAND CIRCLE CUTTERS

IL
7/08/00 - 7/09/00 —Palos Park, IL (C) Palos Air Show. Site: Club Field. Tony Mataitis CD, 14335 Saddlebrook Ln Lockport IL 60441 PH:708-301-4878. See the history of aviation at the Palos RC Flying Club 2000 air show. There will be something of interest for everyone. Sponsor: PALOS FLYING CLUB

IL
7/09/00 —Elk Grove, IL (C) Dave Schatz Memorial Scale Fly In. Site: Ned Brown Woods. David Engel CD, 2053 Dorval Dr Naperville IL 60565 PH:630-305-0457. $10 entry fee includes food, refreshments and prizes. Entries need not fly to compete. Any scale or sport scale airplane - helicopter may enter. Shopping mall for family nearby. Sponsor: CHICAGOLAND RC MODELERS

IL
7/14/00 - 7/16/00 —St Charles, IL (C-Restricted) Chicagoland Festival Of Giants. Site: Campton Hills Flying Site. Jack Treadman CD, 1049 Cardinal Ct Batavia IL 60510 PH:630-879-3423. 50'x500' paved runway with adjacent grass strip. Charging tent with overnite security. Primitive camping within 300' of runway. Sponsor: THE FOX VALLEY AERO CLUB

IL
7/22/00 —Hoffman Estates, IL (C-Restricted) 20th Annual Giant Scale Rally. Site: Shoe Factory Field. Herbert Merell CD, 932 Old Willow Rd Prospect Hts, IL 60070 PH:847-541-2471. Registration 9AM, fly till 3PM. No landing fee. Free lunch for pilots. Sponsor: GIANT SCALE SPECIALISTS

IL
7/23/00 —St Charles, IL (C-Restricted) Pylon Race. Site: Campton Hills. Mike Kostecki CD, 6613 Illiamna Trail McHenry IL 60050 PH:630-665-9246. $15 entry fee. Lunch available at field. Restricted to O.S. 40 F.P., fuel & prop supplied. Sponsor: FOX VALLEY AERO CLUB

IL
7/23/00 —Palos Park, IL (C) Palos Glider Event. Site: Club Field. Jim Kubik CD, 203 Ravine Ave W Willow Springs IL 60480 PH:708-839-1036. Two minute spot landing and thermal duration. $5 landing fee for non club members. $100 in prizes, lunch will be provided. Sponsor: PALOS RC FLYING CLUB

IL
7/30/00 —Rockford, IL (A) Q500 424 Pylon for 424(JSO). Site: Park District. Glen Wierschke CD, 8942 Hedge Rd Byron IL PH:815-234-3285. Sponsor: ROCK VALLEY RC CLUB

IN
7/01/00 —Evansville, IN (C) The Wing Man. Site: Jack Charlier Airfield. David B Hale CD, 446 Shamrock Ct Evansville IN 47715 PH:812-471-8240. Restricted to flown military aircraft. To be held the weekend before July 4th annually. Sponsor: THE EVANSVILLE RADIO CONTROLLED MODEL AIRPLANE CLUB

IN
7/01/00 - 7/02/00 —Kokomo, IN (C-Restricted) Giant Scale Fly In. Site: Club Field. Charles Smalling CD, 2320 S Berkeley Kokomo, IN 46902 PH:765-453-6131. Sponsor: KOKOMO BLUE ANGELS

IN
7/15/00 —Wheeler, IN (C) Warbirds Day. Site: Rainford Field. Stan Zolodz CD, 1659 W 98th Pl Crown Point IN 46307 PH:219-662-1355. Any size model of military aircraft in military colors. Pilots meeting 9:30AM. AMA required. Refreshments on site. Sponsor: MIDWEST SUNDOWNERS

IN
7/18/00 - 7/19/00 —Bedford, IN (C) SAM 57 & 112 Old Timer Meet. Site: Club Field. Don Sachtjen CD, RR 5 Box 56E Bloomfield IN 47424 PH:812-384-3102. 14 SAM RC events. For info send SASE to CD or e-mail sachtjen@viaduct.custom.net. Sponsor: SAM CHAPTER 57/SAM CHAPTER 112

IN
7/23/00 —Dunlapsville IN (C) Learn To Fly Day. Site: Club Field. Chris Bostick CD, 324 South 21st Richmond IN 47374 PH:765-935-4842. Sponsor: WHITEWATER VALLEY RC

IN
7/29/00 - 7/30/00 —Clinton, IN (AA) Brazil Winged Modelers Summer IMAC for 411, 412, 413, 414(J)(S)(O). Site: Clinton Airport. Ron Pound CD, 9021 Greencastle Rd Terre Haute IN 47805 PH:812-232-4939. Sponsor: BRAZIL WINGED MODELERS

KS
7/08/00 - 7/09/00 —Clearwater, KS (C-Restricted) 4th Annual Sod Busters Fun Fly. Site: Club Field. J Charles Woll CD, PO Box 100 Belle Plaine, KS 67013 PH:316-488-2972. 300x1000' grass runway. RV parking at field. No hook ups. Lake Afton Park 18 miles from field. Concessions at field. Saturday eve dinner in air cond hall - no trees. Sponsor: CHISHOLM TRAIL RC CLUB

KY
7/15/00 - 7/16/00 —Lexington, KY (AA) Central KY Scale Competition for 511, 512, 513, 520(JSO). Site: Landfill. Jim Jackson CD, 495 Scotts Ferry Rd E Versailles KY 40383 PH:606-873-3046. $10 entry fee, static judging on Sat. Will fly 2 rounds. Sat & Sun judging will start at 10AM. Prizes for all events. Sponsor: LEXINGTON MODEL AIRPLANE CLUB

MD
7/15/00 - 7/16/00 —Essex, MD (C-Restricted) Mid Atlantic Warbird Show. Site: Essex Sky Park. Edgar Tennyson CD, 5112 Kenwood Ave Baltimore MD 21206 PH:410-665-4217. Baltimore Rt 695 to Rt 702 south 5 miles to Evergreen Ln. RV parking, set up on Friday 7/14, beautiful 125x600' grass runway. Food & beverage on site. Pilots drawing. For more info call CD or George Hamel PH:410-285-4105. Sponsor: CHESAPEAKE BAY MINIATURE AIRCRAFT ASSN

MID-ATLANTIC WAR BIRDS



Birds of Prey Over the Bay

Sponsored By: Chesapeake Bay Miniature Aircraft Association, Chapter 523, Class C Restricted

ESSEX SKY PARK, ESSEX, MD
AIRSHOW
JULY 15-16
First Annual Gathering of RC Giant Warbirds

Interstate 95 to Beltway 695 to Exit 36, Route 702, 5 miles to Evergreen Lane, Turn Right

Info: Call Ed Tennyson (410)665-4217 or George Hamel (410)285-4105

MD
7/22/00 - 7/23/00 —Bowie, MD (AA) 4th Annual Capitol IMAC for 411, 412, 413, 414(O). Site: Club Field. Don Vazquez CD, 3503 Madonna Ln Bowie MD 20715 PH:301-809-3788. Sponsor: PRINCE GEORGES RADIO CONTROL CLUB

MID-ATLANTIC
War Birds



Birds of Prey Over the Bay
Sponsored by: CHESAPEAKE BAY MINIATURE AIRCRAFT ASSOCIATION, CHAPTER 523
ESSEX SKY PARK, ESSEX, MD
AIRSHOW
JULY 15-16
First Annual Gathering of RC Giant Warbirds
For information contact CDs:
Ed Tennyson, 5112 Kenwood Avenue, Baltimore, MD 21206, (410) 665-4217
George Hamel, 2 Seabright Avenue, Baltimore, MD 21222, (410) 285-4105
Interstate 95 to Beltway 695 to Exit 36, Route 702 South, 5 miles to Evergreen Lane, turn right

IMAA Scale Aerobatics
CAPI 2000 Masters Qualifier
July 22-23
PGRC Bowie, MD
Basic, Sportsman, Advanced, Unlimited, & Freestyle
CD: Donnie Vazquez 301-809-3788
http://www.vaztech.com/capi

ME
7/09/00 —Portland, ME (C) Combo Fun Fly. Site: Club Field. Bill Reeve CD, 209 Ray St Portland ME 04103 PH:207-797-8492. Heli & fix wing fun fly, events for both type aircraft. Maneuvers to be announced day of event. For fun only! Sponsor: PROPSNAPPERS

MI
7/08/00 —Northville, MI (C) Mid-America Electric Flies Day 1. Site: Midwest RC Society 5 Mile Field. Ken Myers CD, 1911 Bradshaw Ct Walled Lake MI 48390 PH:248-669-8124. Sponsor: ELECTRIC FLYERS ONLY INC/ANN ARBOR FALCONS/MIDWEST RC SOCIETY

MI
7/08/00 - 7/09/00 —Highland, MI (C-Restricted) 11th Annual Fight Of The Giants. Site: Club Field. Dan Wamboldt CD, 8740 Roe Rd Chelsea MI 48118 PH:734-433-5451. Duck Lake & Teeple Lake Roads. Registration 9AM to 10AM, flying 10AM to 4:30PM. Lunch provided for pilots. Contact Tom MacDonald for more info PH:248-851-8988. Sponsor: UNITED FLYING ORGANIZATION

MI
7/09/00 —Northville, MI (C) Mid-America Electric Flies Day 2. Site: Midwest RC Society Field. Keith Shaw CD, 2756 Elmwood Ann Arbor MI 48104 PH:734-973-6309. Sponsor: ANN ARBOR FALCONS

MI
7/13/00 - 7/16/00 —Grand Ledge, MI (C) Giant Scale District Seven Festival. Site: Club Field. Chuck Spencer CD, 7208 Medallion Dr Lansing, MI 48917 PH:517-886-1007. Sponsor: CARDS CLUB

MI
7/15/00 —Grand Ledge, MI (AA) GLASS Dual Soar In for 442-444(O). Site: McLeod Sod Farm. Clayton Crow CD, PO Box 406 Diamondale MI 48812 PH:646-6298. Sponsor: GREATER LANSING SOARING SOCIETY

MI
7/16/00 —Grand Ledge, MI (AA) GLASS Dual Soar In for 442-444(O). Site: McLeod Sod Farm. Tom Gates CD, 6199 Columbia Haslett MI 48840 PH:517-339-8787. Sponsor: GREATER LANSING SOARING SOCIETY

MI
7/23/00 —Lake Orion, MI (C) Warbirds & Scale. Site: Club Field. Carl Brausa CD, 18 Sparrow Hill Orion, MI 48359 PH:248-373-8949. Any size warbird or scale plane. 94 db at 10 feet. For more info call Joe Finkelstine PH:248-375-0530 or www.geocities.com/~skymasters. Sponsor: SKYMASTERS RADIO CONTROL CLUB

MI
7/28/00 - 7/30/00 —Grosse Ile, MI (C) Michigan Jets. Site: Grosse Ile Municipal Airport. Burton Eisenberg CD, 7287 Danbury Dr W Bloomfield MI 48322 PH:248-626-8838. 2nd annual all charity event. RC ducted fans & turbines. Sponsor: DETROIT AEROMODELERS/FLYING PILGRIMS/MIDWEST RC

MI
7/29/00 —Lake Orion, MI (C) Harold "Big H" Masters 4 Stroke & Majestic. Site: Scripps Rd Field. Greg Cordillo CD, 2066 Cedar Key Ct Lake Orion MI 48360 PH:248-391-6803. Any size 4 stroke or majestic flyers (old timers, slow biplanes). For more info call CD or visit www.geocities.com/~skymasters. 94 db at 10 feet. Sponsor: SKYMASTERS RC MICHIGAN

MN
7/08/00 - 7/09/00 —Kragnes, MN (C-Restricted) Valley Big Dogs Annual Rally. Site: Valley RC Flyers Field. Jeffrey Stremick CD, 1203 43rd Ave N Fargo ND 58102 PH:701-298-8304. Lunch to be included with landing fee. RV welcome. Saturday night BBQ. 800 ft grass runway. Sponsor: VALLEY BIG DOGS

MN
7/09/00 —Cedar, MN (A) Bob Arko Memorial Fun Scale Contest for 520(JSO). Site: Club Field. Stan Zdon CD, 902 - 88th Ln NW Coon Rapids, MN 55433 PH:612-784-3121. Sponsor: ANOKA COUNTY RC

MN
7/09/00 —North Branch, MN (AA) Summer Meet for 101, 102, 103, 104, 105, 120, 124, 140, 142, 153(JSO). Site: Sod Farm. Don Monson CD, 131 Wentworth Ave W St Paul MN 55118 PH:651-457-2321. Sponsor: MINNEAPOLIS MODEL AERO CLUB

MO
7/28/00 - 7/30/00 —St Louis, MO (C-Restricted) 5th Annual Gateway Giant Scale Fly In. Site: Club Field. Bartlett Asher CD, 2051 Dohack Drive Arnold MO 63010 PH:636-282-1634 or e-mail basher@genam.com. Minimum wing span 80" mono, 60" bipe, 140" jets & true 1/4 scale. Fri, Sat, Sun 9:30AM to 5:30PM, practice day Friday. Any current AMA member, IMAA not required to fly, IMAA applications available. $20 fee per pilot. Saturday dinner included with fee. Sponsor: ST LOUIS RC/JR/POWERMASTER FUELS/SHAEFFER'S HOBBIES/ACTION HOBBIES/MARK TWAIN HOBBIES

MT
7/22/00 - 7/23/00 —Frenchtown, MT (C) T-Birds Annual Float Fly. Site: Frenchtown Pond State Park. Duane Felstat CD, 15655 Mullan Rd Missoula MT 59808 PH:406-626-4425. No contest fly-in. Aircraft must be inspected and pass safety requirements. Must be test flown before 9AM of day(s) participating. No dogs allowed within the park - state requirement. Sponsor: BIG SKY THUNDERBIRDS/MONTANA DEPT OF FISH, WILDLIFE & PARKS

NC
7/22/00 —High Point, NC (C) CC RC Cub Day. Site: Club Field. Robert S Underwood CD, 1300 Lakecrest Ave High Point NC 27265 PH:336-885-2318. Any size, power, or color cub come fly with us. 750' grass, restroom, concessions, watermelon, prizes, pilots drawing. Great flying site. Field phone 336-495-5439. $5 landing fee. Sponsor: CENTRAL CAROLINA RADIO CONTROL CLUB INC

NC
7/29/00 - 7/30/00 —King, NC (C-Restricted) RAM's Giant Scale Fly In. Site: Club Field. Mark Covington CD, 3106 YMCA Camp Rd King NC 27021 PH:336-969-2733. Landing fee $5, reg 8AM, fly 9AM. 300' paved runway with grass overruns. On site food/beverages and sanitary facilities. E-mail CD covingtonrandy@aol.com. Sponsor: RIVERSIDE AERO MODELERS

ND
7/29/00 - 7/30/00 —Fargo, ND (AA) 44th Annual R.R.V. Championships for 313, 319, 320, 321, 322, 323, 330(JSO). Site: Club Field. Mike Olson CD, 305 - 27 Ave N Fargo ND 58102 PH:701-232-3647. .15 Carrier, special slow combat, special slow rat race, MAAC .25 sport race, balloon bust(JSO). Sponsor: F-M SKYLARKS

NE
7/22/00 - 7/23/00 —Mead, NE (C) Swift/WF XC Fun Fly. Site: Univ Of NE - Ag Research Center. Loren Blinde CD, 6300 Strauss Ct Lincoln NE 68507 PH:402-467-4765. Closed course distance event for RC sailplanes and electrics. $5 landing fee. Saturday lunch provided. Sponsor: SWIFT/WESTERN FLYERS

NE
7/29/00 - 7/30/00 —Mitchell, NE (C-Restricted) Air Fair 2000. Site: Club Field. Gary Kraus CD, 280060 Highland Rd Minatare, NE 69356 PH:308-783-2864. Sponsor: PLATTE VALLEY RCERS

NJ
7/02/00 —Sewell, NJ (A) Pre Nats Bash for 312, 314, 315(JSO). Site: Gloucester Co Institute of Technology. Phil Valente CD, 1523 Ulster Way West Chester PA 19380 PH:610-692-6469. 312 - NCLRA Fox racing, 312 - Foxberg, 315 - 1/2A scale racing, 314 - 1/2A Mouse II. Sponsor: SOUTH JERSEY AEROMODELERS

Contest Calendar

NJ
7/16/00 —Wall, NJ (C) JCRCC SAM 37 Contest. Site: Club Field. Roy Hulse CD, 635 Summit Ave Brick NJ 08724 PH:732-458-2394. Events - ABC Glow comb, ABC Ign com, Brown Jr LER 60 sec, 1/2A Tex 5 cc tank, Tex fuel allotment and A Tex #5 perfect tank, electric 7 cell 800 mah LMR (90 sec). Sponsor: JERSEY COAST RADIO CONTROL CLUB

NJ
7/30/00 —Middlesex, NJ (AA) The July Endurance Test for 319, 320, 321, 332(JSO). Site: Mountainview Park, Edwin Gifford CD, 6 Hanover Court Mt Laurel NJ 08054 PH:856-722-9756. 332 endurance - two classes, special rules, call CD for details. .15 Carrier, Denver rules, sportsman/expert classes. Sponsor: MIDDLESEX MODELERS INC

NV
7/15/00 —Carson City, NV (C) Open House. Site: Club Field. Paul Neves CD, PO Box 431 S Lake Tahoe, CA 96156 PH:530-541-6520. Open house fly in 9AM to 2PM with demos, buddy box flight training, balsa gliders. Free to everyone who comes. Lunch will be served. Sponsor: HIGH SIERRA RADIO CONTROL CLUB

NY
7/01/00 - 7/02/00 —Westport, NY (C-Restricted) Champlain Valley Big Bird Fly In. Site: Westport Airport. Solomon Allen CD, Pearl St Crown Point, NY 12928 PH:518-597-3570. On site camping, water, rest rooms, no hook ups. Sponsor: CHAMPLAIN VALLEY BIG BIRD ASSN/WESTPORT AEROMODELERS

CHAMPLAIN VALLEY BIG BIRD FLY IN WESTPORT, NY
Westport Airport
JULY 1st & 2nd



BEST FLYING SITE in the east
(2,000 short grass runway)

NY
7/08/00 - 7/09/00 —Carlisle, NY (C) 2rd Annual Anniversary Fun Fly For Diabetes. Site: Club Field. Doug Ives CD, 19 Hawk St Scotia NY 12302 PH:518-370-2960. All types aircraft welcome. Fun, laid back competition events, drag racing, limbo, paintball practice, etc. Food/beverages/RV parking & camping, no hook ups. Pilot raffles & drawings. Aircraft inspection & AMA card required. Landing fee $10. Sponsor: THE FLYING DUECES

NY
7/08/00 - 7/09/00 —Ischua, NY (C) 23rd Annual STARS Scale Rally. Site: Olean Municipal Airport. Jim Goodemote CD, 2310 Sheldon Drive Allegany NY 14706-9440 PH:716-372-1137. Flying will be restricted to scale models only. Flying from 10AM to 5PM each day. Saturday evening auction followed by wine & cheese social. Camping available, no hook ups. Sponsor: SOUTHERN TIER AERO RADIO SOCIETY

NY
7/15/00 - 7/16/00 —Kirkwood, NY (C-Restricted) Masters Of Giant Scale RC Air Show. Site: Kirkwood Air Park. Don Godfrey CD, 91 Blackstone Ave Binghamton NY 13903 PH:607-724-5306. Registration 8AM, flying 10AM. RV, GR, fantastic flying site. 3500' grass runway, free camping, no hook ups, registration gifts, AMA/IMAA rules apply. Info pack available. Sponsor: GIANT SCALE AIRCRAFT ASSN

NY
7/16/00 —Orchard Park, NY (A) Ed Waters Memorial Contest for 443 and 444(JSO). Site: Erie Community College South, F. A. Perry Jr CD, 123 Park Place East Aurora NY 14052 PH:716-655-0775. Sponsor: CLARENCE SAILPLANE SOCIETY

NY
7/21/00 —7/23/00 —Geneseo, NY (C) FAC-Nats Mark XII. Site: Airport. Lin Reichel CD, 3301 Cindy Ln Erie PA 16506 PH:814-833-0314. Sponsor: ERIE MODEL AIRCRAFT ASSN

The Masters of Giant Scale Radio Controlled



Saturday, July 15th
Sunday, July 16th
10 am to 5 pm each day
Kirkwood Air Park, Rt#11, Kirkwood, NY
Just North Of Great Bend, Rt. Exit #1 And #58
On Rt. 81N & S, Kirkwood, N.Y.

PILOTS: Registration perks, NO fees, IMAA spon rule, on site camping, all types aircraft welcome, fantastic flying site! Info pack available.

Giant Scale Aircraft Association, Don Godfrey, Event Director
91 Blackstone Avenue, Binghamton, NY 13903
Phone 607-724-5306 Fax 607-724-2168

EVENT CANCELLED **NY**
7/22/00 - 7/23/00 —Oneonta, NY (C) 9th Annual Fly In. Site: Club Field. Don Corbett CD, 10 Shepherd Ave Oneonta NY 13820 PH:607-433-2185. All size aircraft welcome. Unobstructed 1000' grass runway. Great time for pilots & family at a beautiful flying field. Primitive camping. Mandatory aircraft inspection. Food & facilities available. 1/2 mile off I-88 at exit 16. Sponsor: ONEONTA RADIO CONTROL FLYERS

NY
7/28/00 - 7/30/00 —Selkirk, NY (C-Restricted) Warbirds Over New York. Site: S Albany Airport. Everette Stefles CD, 9 Country Woods Dr Schenectady, NY 12309 PH:518-452-7722. 2nd annual warbird meet. Restricted to any size scale or standoff scale military aircraft, WWI to present. In appropriate markings. This years theme on site USO dinner and dance to honor WWII vets. Military aircraft fly bys. Camping on site, no hook ups. Sponsor: FLYING KNIGHTS MAC OF TROY

NY
7/29/00 —Ontario, NY (C) RAMS Combat. Site: Fordham Field. Ron Swift CD, 6263 Furnace Rd Ontario NY 14519 PH:315-524-6864. RCCA scoring. Hard hats required. Registration 8:30AM to 10AM. Competition 10AM. Entry fee. See www.rcplane.com for more info. Sponsor: RAMS

OH
7/01/00 - 7/02/00 —Quincy, OH (C-Restricted) Mid-Ohio Big Scalers. Site: S & S Field, Ernest Heintz CD, 403 E Main Anna OH 45302 PH:937-394-7331. Sponsor: TOP OF OH RC SQUADRON

OH
7/02/00 —Yellow Springs, OH (A) DARTS Annual Sanctioned Hand Launch for 441(O). Site: Twin Towers Park. Joe Hahn CD, 719 Fisk St Piqua OH 45356 PH:937-773-6772. Man-on-man, times and tasks to be set on contest day. Sponsor: DAYTON AREA THERMAL SOARERS

OH
7/08/00 - 7/09/00 —Celina, OH (C-Restricted) Celina Big Bird Fly In. Site: Bunge Park. Maurice Taylor CD, 10715 O.C. Vendocia Rd Ohio City, OH 45874 PH:419-965-2210. A tailgate swap will be available free. Landing fee $5. Overnight parking, no hook ups. Food & drinks & restrooms on flying site. AMA required. Sponsor: CELINA FLYING SPORTSMEN CLUB

OH
7/08/00 - 7/09/00 —Yellow Springs, OH (AA) DARTS Ohio's Cup for 441, 442, 443, 444(JSO). Site: Twin Towers Park. Ken Davidson CD, 1212 Cardinal Dr Enon OH 45323-9741 PH:937-864-1774. Man-on-man. Open to AMA members from any state. 7/08 classes A, C. 7/09 classes B, D. Ohio's Cup awarded to Ohio resident with best of 3 classes total. Sponsor: DAYTON AREA THERMAL SOARERS

OH
7/09/00 —Braceville, OH (C) Fly In Fun Fly. Site: Club Field. Robert Antonell CD, 1620 N Leavitt Rd NW Warren OH 44485 PH:330-898-0324. Sponsor: SKY HAWKS RC CLUB

OH
7/16/00 —Greenville, OH (C-Restricted) Big Bird Jamboree. Site: Club Field. Dean Hurd CD, 5436 SR 36E Greenville OH 45331 PH:937-547-1532. IMAA & AMA regulations. Food & fun, registration 10AM to ? Sponsor: TREATY LINE FLYERS

OH
7/20/00 - 7/23/00 —Hebron, OH (C-Restricted) Rally Of The Giants 2000. Site: RC Aviation Country Club. Mike Barbee CD, 6561 Calgary Ct Columbus OH 43229 PH:614-891-3336. Sponsor: WMAA/WAGS

OH
7/22/00 —Tiffin, OH (C) 3rd Lynn Cole Fun Fly. Site: Club Field. Jim Hayes CD, 686 S Sandusky Lot 44 Tiffin OH 44883 PH:419-448-5525. Any scale, floats, boats, cars. Boats & cars must have land frequency equipment. Sponsor: TIFFIN AEROMODELERS/NORTHERN OHIO BALSA SCALERS

N.O.B.S. 4th T.A.M.
LYNN COLE FUN FLY
JULY 22, 2000
TIFFIN, OHIO
LARGE RUNWAY AND 2 LARGE LAKES
FOOD & SANITARY FACILITIES, FLY WHAT YOU BRING
JIM HAYES, CD
419-448-5525
SPONSOR - NORTHERN OHIO BALSA SCALERS/ TIFFIN AEROMODELERS

OH
7/23/00 —Cortland, OH (C) Class C Fly In. Site: Club Field. Bert Waterman CD, 3065 Solar St NW Warren OH 44485 PH:330-898-2769. Club field is east of Trumbull County Fair Grounds. All sizes welcome. Flying starts at 9:30AM. Sponsor: FLYING AEROS CLUB

OH
7/30/00 —Columbiana, OH (C) Shaker Woods Fun Fly. Site: Shaker Woods. Mark Chopp CD, 190 Elvira Dr McDonald OH 44437 PH:330-530-0266. Sponsor: MAHONING COUNTY MODEL CLUB

OH
7/30/00 —Elyria, OH (A) CFFS FAC Scale & FF Contest for 140, 142(J)(S)(O). Site: Lorain County Community College. Gordon Roberts CD, 5539 Hilltop Oval Parma OH 44134 PH:216-749-4817. 29 events for FAC scale, Free Flight, & Old Timer Rubber. Sponsor: CLEVELAND FREE FLIGHT SOCIETY

OH
7/30/00 —Celina, OH (C) Mid America Championship. Site: Bunge Park. Dean Hurd CD, 5436 SR 36 Greenville OH 45331 PH:937-547-1532. Contest coordinator Lyn Green PH:419-586-7362. Large trophies 1st - 5th plus door prizes. RCCA point standings. 704W/WII combat 710-2610. Sponsor: CELINA FLYING SPORTSMEN

OK
7/15/00 - 7/16/00 —Ponca City, OK (C-Restricted) 12th Annual Miniature Aircraft Airshow. Site: Club Field. Bob Braden CD, 1901 Mary Ponca City, OK 74601 PH:580-762-2527. Landing fee $15, reg 8AM, flying 9AM. Paved runway, free lunch to pilot & helper. RV welcome, no hook ups. Sat 9AM to 5PM Sun 9AM to 1PM. Sponsor: GOOD OLE OKIE FLYING SOCIETY

OK
7/29/00 - 7/30/00 —Broken Arrow, OK (C) Field Of Dreams. Site: Fitzgerald Field. Kent Landefeld CD, 421 Woods Ln Claremore OK 74017 PH:918-342-5781. Sponsor: AMERICAN TURF FLYERS

OR
7/01/00 - 7/02/00 —White City, OR (C-Restricted) Big Bird Fly In. Site: Agate Skyways. John James CD, 251 Arrow Way Myrtle Creek OR 97457 PH:541-863-7400. Landing fee $10 includes BBQ Saturday night. No minimum wing span, all planes must pass AMA safety rules. Sponsor: ROGUE EAGLES

OR
7/02/00 —Salem, OR (A) PASS Multitask for 444(JSO). Site: Sod Farm. Amy Pool CD, 7624 SE Taylor St Portland, OR 97215 PH:503-262-8357. Sponsor: PORTLAND AREA SAILPLANE SOCIETY

OR
7/08/00 —Adair, OR (C) Adair Village Benefit Fly In. Site: Adair Aerodrome. Bill Harburg CD, 2456 NW Wayland Ave Corvallis OR 97330 PH:541-757-7145. Sponsor: BENTON COUNTY RC CLUB

OR
7/08/00 - 7/09/00 —Wamic, OR (C) Northwest Seaplane Championship. Site: Pine Hollow Reservoir. Guy Foreman CD, 11621 NE Oregon St Portland OR 97220 PH:503-257-8841. Must have working muffler and ROW. Sponsor: PORTLAND SKY KNIGHTS

OR
7/15/00 —Beaverton, OR (A) PASS Slope Race for 454(JSO). Site: Slope Site. Pat Chewning CD, 16766 NW Yorktown Beaverton OR 97006 PH:503-645-0323. Sponsor: PORTLAND AREA SAILPLANE SOCIETY

OR
7/15/00 —Ontario, OR (C) Battle Over Malhuer Butte. Site: Malhuer Butte. Chet Carpenter CD, 7188 Elmore Fruitland, ID 83615 PH:208-452-3227. Sponsor: SNAKE RIVER MODLERS

OR
7/15/00 - 7/16/00 —Selma, OR (C) Selmac Float Fun Fly. Site: Lake Selmac. Floyd Grove CD, 685 Galice Rd Merlin OR 97532 PH:541-955-0634. Sponsor: ROGUE VALLEY FLYERS

OR
7/21/00 - 7/23/00 —Joseph, OR (C-Restricted) Fun Fly. Site: Joseph Airport. Wil Byers CD, 3448 Eastlake Dr W Richland, WA 99353 PH:509-527-5224. Sponsor: MID COLUMBIA SOARERS

OR
7/21/00 - 7/23/00 —Hillsboro, OR (D) Hillsboro Airshow. Site: Hillsboro Airport. Fred Hostetler CD, 8891 SW Hillsboro Hwy Hillsboro, OR 97123 PH:503-648-8337. This years Rose Festival Airshow will star the Blue Angels. The preshow activities will feature 1/4 scale RC models and a U/C circle in the entertainment center. Sponsor: OREGON MINIATURE AIRCRAFT

OR
7/23/00 —Redmond, OR (AA) C.O.L.D. Stunt Contest for 323, 324, 325, 326(JSO). Site: Field Of Dreams RC Field. Mike Hazel CD, 1073 Windemere Drive NW Salem OR PH:503-364-8593. Sponsor: CENTRAL OREGON LAWN DARTS

OR
7/27/00 - 7/30/00 —Molalla, OR (AA) IMAC & Pacific Coast Free Style for 411, 412, 413, 414(JSO). Site: Shrap's Green Acres. W.L. Pete Melin CD, 1225 Hillendale Dr S Salem OR 97302 PH:503-363-1684. 4 days, (3) IMAC contest flying days open to all. Sunday Pacific Coast Free Style Championships. 6 flyers by invitation, 6 from IMAC competition. $4000 in cash & prizes, trophies. Sponsor: MOLALLA RC ASSN

PA
7/09/00 —Transfer, PA (C) Skylarks RC Fly In. Site: Club Field. George Ehnot CD, 136 Boyd Dr Hermitage PA 16148 PH:724-342-2990. Sponsor: SKYLARKS OF SHARON, PA

PA
7/15/00 —Lehighton, PA (C) Helicopter Fun Fly. Site: Ashfield Flying Field. Larry Smith CD, 322 N 7th St Lehighton PA 18235 PH:610-377-4941. Sponsor: ASHFIELD MODEL AIRPLANE CLUB/BOLAR HELI RESEARCH

PA
7/15/00 - 7/16/00 —Athens, PA (A) Valley RC 28th Annual Competition Fun Fly for 705(JSO). Site: Round Top Park. Dan Luchaco CD, 605 Stevenson St Sayre PA 18840 PH:570-888-1856 or e-mail paflyer23@cyber-quest.com. Events announced at the contest. No Valley RC members compete. 4 classes of fun fly events and 1 class of NCFFA timed events. Trophy & merchandise awards. Free entrants raffle, picnic supper, & camping. Sponsor: VALLEY RC MODEL CLUB INC

VALLEY R/C CLUB COMPETITION FUN FLY 2000
JULY 15-16,2000
ATHENS,PA
NCFFA/Fun Fly Events
Free Camping & Picnic
Trophy, Mdse.
Awards
send SASE for info:
Dan Luchaco-CD
605 Stevenson St.
Sayre, PA 18840

PA
7/22/00 —Bloserville, PA (C) Carlisle Aeromodelers Fun Fly. Site: Bear Field. Bill Bush Sr CD, 111 Fairview Drive Carlisle PA 17013-8474 PH:717-249-8425. One day fun fly with sportsman and expert classes. 9AM registration. Contact Jeff Black PH:717-624-7489 or jbmodels@netrax.net for further info. AMA membership required. Sponsor: CARLISLE AEROMODELERS

Contest Calendar

PA
7/29/00 - 7/30/00 —Hunlock Creek, PA (C-Restricted) Moon Lake 1/4 Scale Fun Fly. Site: Moon Lake Park. Dan Williams CD, RR #3 Box 99B Hunlock Creek, PA 18621 PH: 570-477-3065. Camping with RV hookups. Pool, lake with boating and fishing. Hiking and other outdoor activities. "A great family weekend." Park phone 570-477-5467. Sponsor: WYOMING VALLEY RC FLYERS

SD
7/01/00 - 7/02/00 —Beresford, SD (C) Beresford Big Bird Fun Fly. Site: Beresford City Field. David Larsen CD, 204 E 4th St Box 353 Alcester SD 57001 PH:605-934-2434. $10 landing fee includes a lunch. Limited camping at the field. Full hook ups and motels 1 mile away. 400' grass with 300' crosswind runway. Lunch and beverages on the field. Call CD or Roger Lang PH:605-763-5345. Sponsor: BERESFORD AREA RADIO FLYERS

TN
7/08/00 —Tullahoma, TN (A) Airfoiler RES for 444(JSO). Site: Club Field. Chuck Anderson CD, PO Box 305 Tullahoma TN 37388 PH:931-455-6430. Proposed RES rules will be used except that skegs will be allowed. Sponsor: COFFEE AIRFOILERS MODEL AIRPLANE CLUB

TN
7/21/00 - 7/22/00 —Rockwood, TN (C) SAM In East Tennessee. Site: Rockwood Airport. George Shacklett CD, 2136 Cherokee Blvd Knoxville TN 37919 PH:465-525-1369. 4th Annual East TN SAM. Site 40 mi west of Knoxville on I40. 1/2A Tex, 1/2A Tex scale, LER (comb), Electric Tex, Pure Tex, Brown Jr LER, Ohlsson sideport, Antique (comb), A Tex. Sponsor: KNOX COUNTY RC SOCIETY

TX
7/01/00 - 7/02/00 —Kress, TX (AA) Annual IMAC Pattern Contest for 411, 412, 413, 414(JSO). Site: Club Field. Bob Hawkins CD, Rt 1 Box 110 Kress TX 79052 PH:806-684-2366. Field open Friday for practice, manicured grass runway, 700x150', Hamburger cookout for early arrivals Friday night, BBQ dinner Saturday night free to pilots, plenty of room for campers, concession stand both days. Plaques thru 3 places in each class. Registration 9AM, flying at 10AM, entry fee $20. Sponsor: FLATLANDERS OF KRESS MODEL AIRPLANE CLUB

TX
7/08/00 - 7/09/00 —Crosby, TX (C-Restricted) Prop Nuts Annual July Big Bird Fly In. Site: Club Field. Taswall Crowson CD, 606 Pine Circle Seabrook TX 77586 PH:281-474-9531. Big bird event, $10 landing fee, RV ok, no hook ups. Food & beverage available on site. Sponsor: PROP NUTS RADIO CONTROL CLUB

TX
7/09/00 —Dallas, TX (A) Sailplane Thermal Duration for 444(JSO). Site: Eastfield College Campus. Perry Dunlap CD, 10035 Mill Trail Dr Dallas, TX 75238 PH:214-348-1107. Sponsor: SOARING LEAGUE OF NORTH TEXAS

TX
7/14/00 - 7/16/00 —Lubbock, TX (C) T-38 Jet Rally. Site: Reese Center. R Michael Danchak CD, 9112 Salem Dr Lubbock TX 79424 PH:806-794-9474. Come fly with us at the former Reese Air Force base. Landing fee $25, speed runs, trophies. Restricted to ducted fans and turbine jets only. Primitive camping. Sponsor: WINGS MINIATURE AIRCRAFT SOCIETY

TX
7/15/00 - 7/16/00 —Kress, TX (C) Annual Fly In & Bar-B-Que. Site: Club Field. Bob Hawkins CD, Rt 1 Box 110 Kress TX 79052 PH:806-684-2366. Fly In & a Texas style Bar-B-Que dinner Saturday evening. Manicured grass runway, plenty of room for campers, no hook up, overnight storage for large aircraft, concession stand both days. Plaques for most flight, raffle Sunday afternoon, landing fee $15, includes one meal ticket, extra meal tickets available. Sponsor: FLATLANDERS OF KRESS MODEL AIRPLANE CLUB

TX
7/23/00 —Sherman, TX (C) Sherman Fun Fly. Site: Club Field. Jim Polozeck CD, 1308 Fox Hollow Denton TX 76205 PH:940-382-2539. General fun fly events. Sponsor: TEXOMA RC MODELERS

VA
7/22/00 —Leesburg, VA (C) Loudoun County Aeromodelers Electric Fly In. Site: Club Field. Ron Anderson CD, 115 Sue Ann Court Sterling VA 20164 PH:703-444-3215. 9AM to 5PM. Food, drinks & raffle. Entry fee $3. Bring your electric aircraft & fly or just visit. Info: B Allen PH:703-430-5849 or www.rc1.com, allenbw@erols.com. Sponsor: RESTON RC CLUB DBA LOUDOUN COUNTY AEROMODELERS

VT
7/22/00 - 7/23/00 —Middlebury, VT (C) Green Mountain Jet Rally. Site: Airport. Thomas Puma Jr CD, PO Box 722 Castleton VT 05735 PH:802-483-9161. AMA waiver required for all turbine operations. Sponsor: RUTLAND COUNTY RC FLYERS

WA
7/01/00 —McKenna, WA (C) 4 Stroke Fun Fly. Site: Pfeifer Field. Robert Ford CD, 2410 22nd St SE Puyallup, WA 98374 PH:253-848-3943. Four cycle engines only. Sponsor: MT RAINIER RC SOCIETY

WA
7/01/00 - 7/02/00 —Pasco, WA (A) 24th Annual Sun Fly for 442 and 444(O). Site: Sod Farm. Kirby Parker CD, 2304 Snohomish Richland, WA 99352 PH:509-375-1587.

WA
7/08/00 - 7/09/00 —Spokane, WA (C-Restricted) Lilic City Fan Fly. Site: Club Field. Anthony Worman CD, 16408 N Green Bluff Rd Colbert, WA 99005 PH:509-238-9157. Restricted to ducted fans and turbines only. Paved runway 100' by 1/2 mile. Largest fan fly in the North West. Dry camping available at field. For info Doug Hunt PH:509-327-1180. Sponsor: BARONS MODEL CLUB

WA
7/08/00 - 7/09/00 —Snohomish, WA (C) 9th Annual Rotary Extravaganza. Site: Club Field. Richard McKenna CD, 8723 Del Campo Drive Everett WA 98208-3416 PH:425-337-2403. E-mail dxter@get.net. For map and more info check our web site at http://home1.gte.net/dixter/index.htm. Sponsor: CASCADE MODEL HELICOPTER CLUB

WA
7/15/00 - 7/16/00 —Mt Vernon, WA (AA) Thermal Search II for 442 and 444(O). Site: Kamb Rd. Lynn King CD, PO box 764 Anacortes, WA 98221 PH:360-293-1183. R.E.S. will also be flown. Sponsor: TERCELS

WA
7/16/00 —Olympia, WA (C) Annual Float Fly In. Site: Black Lake. Bruce Gale CD, 811 9th Ave SW Puyallup WA 98371 PH:253-845-0705. Sponsor: PUGET SOUND RC FLYERS

WA
7/16/00 —Redmond, WA (C) Scale Fly In. Site: Marymoor Park. Ward Emigh CD, 21708 NE Red-Fall City Rd Redmond WA 98053 PH:425-868-8000. Scale fly-in event, food available, grass runway with overrun. Sponsor: MARYMOOR RC CLUB

WA
7/22/00 —McKenna, WA (C) Fun Fly. Site: Pfeiffer Field. William Bender CD, PO Box 751 Eatonville, WA 98328 PH:360-832-6843. $10 entry fee, merchandise prizes, lunch. Low key - first time contestants welcome. Sponsor: MT RAINIER RC SOCIETY

WI
7/01/00 —Shawano, WI (C) Big Bird Fly In. Site: Club Field. Larry Sperberg CD, PO Box 375 Wittenberg WI 54499 PH:715-446-2016. 9AM to 3PM, open flying after 3PM. Sponsor: SHAWANO RC FLYING CLUB

WI
7/08/00 - 7/09/00 —Waukesha, WI (C-Restricted) A.D.A.M.M. Good Fun Fly. Site: Pebble Creek. Alan J Voss CD, 5400 Laura Ln Greendale, WI 53129 PH:414-421-1995. All giant aircraft welcome. AMA & IMAA rules apply. Beautiful grass field. Refreshments and food available. Map furnished upon request. Sponsor: PEBBLE CREEK FLYERS INC

WI
7/08/00 - 7/09/00 —Little Chute, WI (C) Float Fly. Site: Fox River. Marv Zwick CD, 641 Buchanan Rd Combined Lock's WI 54113 PH:920-766-3608. 9th annual fun float fly, "new site", better than ever in Little Chute, follow signs to river. Open flying 9AM to dark. Food & beverages. Sponsor: CALUMET FLYERS

WI
7/09/00 —Bristol, WI (AA) 41st Annual IMAC Flying Meet for Cat II 101, 102-103, 104-105, 120, 124, 140-142, 150, 153, 154(JSO). Site: Bong Field. Charlie Sotich CD, 3851 W 62nd Pl Chicago IL 60629 PH:773-735-1353. Sponsor: ILLINOIS MODEL AERO CLUB (IMAC)

WI
7/15/00 —Marathon County, WI (C) Hobbyland Fliers Fun Fly. Site: Club Field. David Williams CD, W6382 CTHA Medford WI 54451 PH:715-678-2826. Sponsor: HOBBYLAND FLIERS

WI
7/15/00 - 7/16/00 —Kansasville, WI (C) Float Fun Fly. Site: Bon Rec Area. Wayne Hunnicutt CD, 586 W 24360 Edgewood Ave Big Bend WI 53103 PH:262-662-2740. Float flying on shallow pond. 10AM to 4PM each day. Land site available. Wisconsin park sticker required & available on site. Sponsor: MILWAUKEE AREA RADIO KONTROL SOCIETY

WI
7/22/00 - 7/23/00 —Menomonee Falls, WI (C) Scale & Open Radio Control Combat. Site: Club Field. Tim Roliff CD, 3143 Hubertus Rd Hubertus WI 53033 PH:262-628-4528. RCCA scale and open rules. www.rcplanet.com/flyingelectron. Sponsor: THE FLYING ELECTRONS

WI
7/23/00 —Oshkosh, WI (C) All RC Scale Fly In. Site: Club Field. Bob Sonnleitner CD, 724 W Gruenwald Ave Oshkosh WI 54901 PH:920-231-6153. Always the Sunday before the EAA convention. Sponsor: WINNEBAGO RC FLYERS INC

AUGUST

AL
8/05/00 —Huntsville, AL (C) 6th Annual Warbird Fly In. Site: Trey Wilbourn Field. John "Skip" Little Jr CD, 15005 Carlisle Dr Huntsville AL 35803 PH:256-881-6680. Warbird fly in - all sizes. Judged static appearance event using sport scale appearance criteria (no doc required unless warbird class questionable). Awards 1st & 2nd in class plus best in show, pilots choice. Lots of open flying with static judging/photo lineup at noon. Jets ok, runway 500x50. Lunch available. $10 landing fee. Sponsor: ROCKET CITY RADIO CONTROLLERS

AL
8/19/00 - 8/20/00 —Montgomery, AL (C) 3rd Annual SPA Contest. Site: Club Field. Michael Hare CD, 2413 Mary Lou Ln Montgomery AL 36117 PH:334-272-2537. Expert, sportsman, and novice, all SPA rules followed. No antique class. Sponsor: RADIO AERO MODELERS OF MONTGOMERY

CA
8/11/00 - 8/13/00 —Sherman Oaks, CA (A) Scale Masters Qualifier for 512(S). Site: Sepulveda Basin. Fred Browns CD, 12392 Lee Ln Garden Grove CA 92840 PH:714-534-1405. Team sport scale. Sponsor: SCALE SQUADRON OF SOUTHERN CA/VALLEY FLYERS

CA
8/12/00 - 8/13/00 —Fremont, CA (C) Bayside Century Heli Fly In. Site: Club Field. Thomas Minger CD, 1715 Ponca Ct Fremont CA 94539 PH:510-657-1346. 4th annual jamboree, on site camping, no hook ups. Sat night BBQ, night flying, drags, scale, fun fly events. Beginners welcome. Sponsor: BAYSIDE RC CLUB/CENTURY HELICOPTER PRODUCTS

CA
8/13/00 —Thousand Oaks, CA (A) 3rd Annual Built-Up/Bent Wing for 444(J)(O). Site: Redwood School. Art McNamee CD, 2645 Placerville Court Simi Valley CA 93063 PH:805-526-6292. Entries limited to built up/bent wing gliders. No foam. Control surfaces limited to rudder, elevator and spoilers, no moveable trailing edges. Sponsor: THOUSAND OAKS SOARING SOCIETY

CA
8/19/00 - 8/20/00 —Woodland, CA (AA) 4th Annual Ted Goyet Controline Stunt Classic for 322, 323, 324, 325(JSO). Site: Mavis Henson Field. Douglas Barton CD, 160 Park Ave Woodland, CA 95695 PH:530-662-9631. Sponsor: WOODLAND/DAVIS AEROMODELERS INC

CA
8/19/00 - 8/20/00 —Sacramento, CA (AA) 5th Annual Charles "Bud" Garric Memorial Pattern Contest for 401-406(JSO). Site: Club Field. Frank Capone CD, 3041 Mortara Circle Placerville CA 95667 PH:530-621-1010. RV welcome. BBQ both days. E-mail crcfrank@jps.net. Sponsor: SACRAMENTO MODELERS

CA
8/19/00 - 8/20/00 —Los Angeles, CA (AA) Q40 - Q500 for 422, 424, 428(Q). Site: Woodley Park. Chris Moyer CD, 21051 Gresham #302 Canoga Park CA 91304 PH:818-709-1551. Sponsor: SAN FERNANDO VALLEY FLYERS

CA
8/19/00 - 8/20/00 —Roseville, CA (C) Red Baron Challenge. Site: Club Field. Jeff Weiss CD, 14 Shady Lake Ct Sacramento, CA 95834 PH:916-925-4917. 1/12 scale warbird racing on Sat. 1/12 scale combat on Sun. Prizes awarded 1-3 in racing, combat & combined. Combat rules are RCCA 2105/2610. Racing rules are by SWRA. Sponsor: RED BARONS/AIR-KILL PRODUCTS

CA
8/19/00 - 8/20/00 —Woodland, CA (C) Woodland/Davis Float Fly. Site: Club Field. Milton Degroodt CD, 102 Garcenia Ct Martines CA 94553 PH:925-682-2185. Overnight ok, no hook ups. Snackbar open during flying hours - weekend event. $10 landing fee and registration. Sponsor: WOODLAND/DAVIS AEROMODELERS

CA
8/19/00 - 8/20/00 —Mountain View, CA (AA) 3rd Annual Moffett & F1D Regional for Cat IV 201-220(JSO). Site: Moffett Hangar 1. Herb Robbins CD, 16251 Lilac Lane Los Gatos CA 95032 PH:408-356-8659. 3rd Moffett hangar annual indoor free flight contest and F1D regional. Sponsor: OAKLAND CLOUD DUSTERS

CA
8/20/00 —San Diego, CA (AMA Record Trial) Orbiteers Monthly for 101, 102, 103, 104, 124, 142, 153(JSO). Site: Brown Field. Robert Thompson CD, 466 Broadway #31 Chula Vista CA 91910 PH:619-476-1083. Sponsor: SAN DIEGO ORBITEERS

CA
8/20/00 —El Rio, CA (A) Scale Contest for 511, 520(JSO). Site: Club Field. George Bahrman CD, 1117 Fuchsia Ln Santa Paula CA 93060 PH:805-525-1301. Sponsor: CAMARILLO FLYING CIRCUS

CA
8/27/00 —S El Monte, CA (C) Aircruiser/AT-6 Race. Site: Whittier Narrows. Mark Crum CD, 3552 Mirian Dr West Covina CA 91791 PH:626-331-7949. Sponsor: SGVRCL

CO
8/05/00 —Colorado Springs, CO (A) Night Fly for 444(O). Site: Club Field. Austin Cleis CD, 8465 Pine Cone Rd Colorado Springs, CO 80908 PH:719-495-3177. Sponsor: PIKES PEAK SOARING SOCIETY

CO
8/12/00 - 8/13/00 —Denver, CO (AA) Rocky Mountain Champs for Cat II 101, 102, 103, 104-105, 120, 124, 140-142(J)(SO), 150, 151, 152, 153-155, 501, 503, 505(JSO). Site: Club Field. Darold Jones CD, 431 E Fountain Place Manitou Springs CO 80829 PH:719-685-5312. 020 OT replica, MMM slow open power, Jr gas, Jr rubber, Jr towline glider, Jr HLG & CLG, Jr high point. Sponsor: MAGNIFICENT MOUNTAIN MEN

CO
8/19/00 - 8/20/00 —Loveland, CO (C) 7th Annual Rocky Mountain Big Bird Festival. Site: Club Field. Lloyd McConnell CD, 5122 25th St Rd Greeley CO 80634 PH:970-330-5101. $10 landing fee. Safety inspections. Pilot & spouse raffles, Quinn Senior Kadet raffle, RV parking, no hookups. TOC pilot demos. www.fortnet.org/loveairrc. Sponsor: LOVE-AIR RC

7th Annual
ROCKY MOUNTAIN



BIG BIRD FESTIVAL
August 19 & 20 2000, Northern Colorado
AMA SANCTIONED
GIANT SCALE FLY-IN
One of the largest R/C events in the Rocky Mountain Region!
Sponsored by the Love-Air R/C Club
CD: Lloyd McConnell (970) 330-5101
Director: Mark Smith (970) 667-3575
Info: www.fortnet.org/loveairrc

7th Annual
ROCKY MOUNTAIN



BIG BIRD FESTIVAL
August 19 & 20 2000, Northern Colorado
Saturday 9-4 & Sunday 9-2
Free Style Exhibition Flying Noon Each Day
QUIQUE SOMENZINI TOC World Champ
600'x50' Paved Runway + Paved Pit/Taxiways
RV & Camper Parking (no hookups)
Pilot Raffles & Hourly Drawings
Public Raffle for RTF "Quinn" Senior Cadet MKII
AMA & IMAA Rules Apply
Inspections & AMA Membership Required
$10 Landing Fee
Info: www.fortnet.org/loveairrc

CO
8/20/00 —Colorado Springs, CO (A) Dog Daze for 444(O). Site: Club Field. Austin Cleis CD, 8465 Pine Cone Rd Colorado Springs, CO 80908 PH:719-495-3177. Sponsor: PIKES PEAK SOARING SOCIETY

CO
8/20/00 —Denver, CO (A) MMM Monthly for Cat II 101, 102-105, 120, 140-142, 150-152(JSO). Site: Club Field. Pete McQuade CD, 2610 Kenton Green Ct Colorado Springs CO 80920 PH:719-522-1239. Above events plus MMM slow open power. Sponsor: MAGNIFICENT MOUNTAIN MEN

CO
8/26/00 —Sterling, CO (C) High Plains Shoot Out. Site: Club Field. Marvin Ferdig CD, 519 Pawnee Dr Sterling CO 80751 PH:970-522-4555. Annual combat meet, 2610 class flying, RCCA rules. Camping/RV parking, no facilities. Entry $15 includes lunch. Raffle & merchandise prizes. Contact for further information marvo@kei.net. Sponsor: STERLING MINIATURE AIRCRAFT ASSN

Contest Calendar

CO
8/26/00 - 8/27/00 —Pueblo West, CO (AA) 3rd Annual Pueblo Sky Corral Pattern Meet for 401, 402, 403, 404, 406(O). Site: Club Field. Chuck Schone CD, 1422 N Ladona Pueblo West, CO 81007 PH:719-547-3620. Sponsor: SKY CORRAL RC CLUB

CO
8/27/00 —Denver, CO (A) RMSA 2 Meter Summer Challenge for 442(JSO). Site: Club Field. Mark Howard CD, 19015 W 62nd Ave Golden CO 80403 PH:303-278-7519. Sponsor: ROCKY MOUNTAIN SOARING ASSN

CT
8/05/00 - 8/06/00 —Ellington, CT (A) NCRCC 2-Day Q500 Race for 424(JSO). Site: Club Field. Kevin Cyr CD, 116 Rollingview Dr Vernon CT 06066 PH:860-871-8316. Q500 std/expert & beginner races. NEPRO rules. Must pre-register. Registration closes at 8:30AM sharp. Racing begins at 9AM both days. Sponsor: NCRCC

FL
8/19/00 - 8/20/00 —Ocala, FL (C-Restricted) Summers End Big Bird Fly In. Site: Club Field. Charles Howe CD, 3151 NW 44 Ave Lot #3 Ocala FL 34482 PH:352-732-6106. Pilot prizes, raffles, food & drink available at the Cook Shack. Camping overnight permitted, no hook ups. Visitors welcome. Registration 8AM, flying starts at 9AM, landing fee $5. Restricted to 80" mono, 60" bipe and true 1/4 scale. Sponsor: OCALA MODEL FLYING CLUB INC

FL
8/27/00 —Palm Bay, FL (AMA Record Trial) Record Trials for Cat III 101, 102, 103, 104, 105, 106, 107, 120, 121, 122, 124, 125, 126, 127, 128, 129, 130, 140, 142, 150, 151, 152, 153, 154, 155, 156, 157(JSO). Site: Club Field. Ron Sharpton CD, 1290 Country Rd Daytona Beach, FL PH:904-767-6138. Sponsor: FLORIDA MODELERS ASSN INC

GA
8/19/00 —Cumming, GA (C) Fly In & Swap Meet. Site: Club Field. Dave Hesler CD, 330 Wildegreen Dr Roswell GA 30075 PH:770-346-9926. RC planes and helos welcome. Prizes for best military, civilian, and helo. $10 landing fee, $5 swap table fee (bring your own table). Sponsor: CHATTAHOOCHEE RIVERSIDE FLYERS

IA
8/12/00 - 8/13/00 —Des Moines, IA (AA) U.C. Stunt Contest for 322, 324, 324, 325, 326(JSO). Site: Big Creek Park. Bob Baldus CD, 6719 Colby Des Moines, IA 50311 PH:515-255-8025. 1/2A stunt, beginners pattern(JSO), 1/2A stunt full pattern(JSO). Old time stunt(JSO), classic stunt (beginners int)(adv & exp). Sponsor: MID-IOWA CONTROLINERS

IA
8/19/00 - 8/20/00 —Grimes, IA (C) Big Bird Fly In. Site: West Field. Charles Blake CD, 707 15th Ave SW Altoona IA 50009 PH:515-967-5079. $10 fee includes Sunday morning breakfast for pilot and spouse. AMA only required. Drawings both days, 1/2 way between Grimes & Dallas center. E-mail crsblake@worldnet.att.net. Sponsor: DES MOINES MODELAIRES

IA
8/20/00 —LeMars, IA (C) Wings Fun Fly. Site: East Field. Bernard DeBoer CD, 414 S Lynn Drive LeMars IA 51031 PH:712-546-4609. $10 entrance fee, door prizes for everyone, free lunch & drink. Sponsor: WINGS RC CLUB

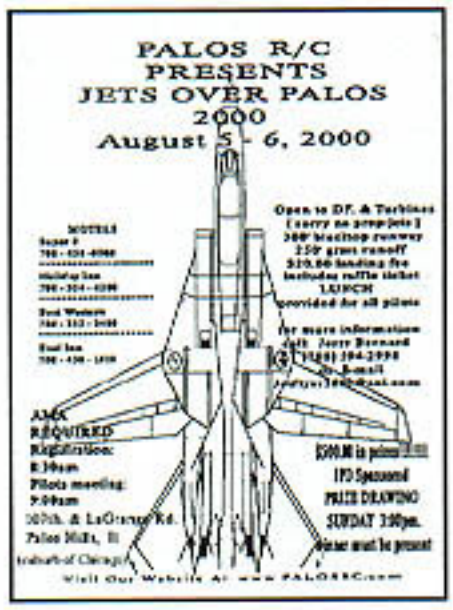
IA
8/27/00 —Grimes, IA (C) Modelaires Summer Fun Fly. Site: West Field. Larry Carter CD, 333 SE Diehl Des Moines, IA 50315 PH:515-287-6548. $10 landing fee, food & refreshments available. Registration 9AM. Pilot's meeting 10AM. Show 2000 AMA to fly. Use any RC model. At our West Field located halfway between Dallas Center & Grimes on US Hwy 44. At the R22 northbound county road turn off, go south on the gravel road 1/4 mile. Sponsor: DES MOINES MODELAIRES

IL
8/05/00 - 8/06/00 —Chicago, IL (A) Windy City Classic for 331(JSO). Site: Schiller Woods. Rich Tupper CD, 3105 Audrea Ct Woodridge IL 60517 PH:630-985-8518. 75 mph speed limit, midair does not end match. Sponsor: CHICAGOLAND CIRCLE CUTTERS

IL
8/05/00 - 8/06/00 —Palos Park, IL (C) Palos Jet Rally. Site: Club Field. Jerry Bernard CD, PO Box 36 Summit Argo, IL 60501 PH:708-594-2998. Fly into the new millennium with the 4th annual Jets Over Palos, expanded to two days for more flying pleasure. Lunch will be provided for all flyers. 300x30' black top runway. $500 in prizes. E-mail for more info tanflyer1000@hotmail.com. Sponsor: PALOS RC FLYING CLUB

IL
8/06/00 —St Charles, IL (C-Restricted) Pylon Race. Site: Campton Hills. Mike Kostecki CD, 6613 Illiamna Trail McHenry IL 60050 PH:630-665-9246. $15 entry fee. Lunch available. Restricted to OS FP 40. Fuel and prop supplied. Sponsor: FOX VALLEY AERO CLUB

IL
8/06/00 —Country Club Hills, IL (C) Ray G Memorial. Site: Forest Preserve. John Boren CD, 829 Luther Ln Chicago Heights IL 60411 PH:708-756-3697. Come join us for a day of relaxed flying. We offer a large flying area with an asphalt runway surrounded by low cut grass. Sponsor: SUBURBAN AERO CLUB OF CHICAGO



IL
8/12/00 - 8/13/00 —Elk Grove Village, IL (C) C.R.C.M. Annual IMAC. Site: Club Field. Al Brose CD, 1205 Tannery Ridge Rd Elgin IL 60120 PH:847-289-9205. For info contact Dave Genovese, 514 E Devon Roselle IL 60172 PH:630-529-7355. daylight hours only. Sponsor: CHICAGOLAND RC MODELERS

IL
8/13/00 —Moline, IL (C) Fun Fly. Site: 60th St & John Deere Rd. Dennis Witt CD, 4823 48 Ave Moline, IL 61265 PH:309-797-2893. Sponsor: SKYRAIDERS

IL
8/13/00 —Rockford, IL (C-Restricted) Big Bird Fly In. Site: Rockford Park District Airfield. Denis Bielick CD, 1633 N Sauk Trail Oregon, IL 61061 PH:815-732-4039. 400x450' grass runway with no overfly obstructions. Great lunch buffet free to pilots. Bad frequencies 27, 28, 29. 2nd annual big bird fly in. For info e-mail denis@inwave.com or web address http://home.att.net/~awhitmire/ Sponsor: ROCK VALLEY RC FLYERS CLUB

IL
8/13/00 —DePue, IL (C) Float Fly. Site: Lake DePue. Bob Jeppson CD, PO Box 559 Granville IL 61326 PH:815-339-2378. Sponsor: PUTNAM COUNTY WINDY FLYERS

IL
8/13/00 —Hamilton, IL (AA) Fall Meet for 442 and 444(JSO). Site: Club Field. Robert Thompson CD, 326 N 5th Keokuk IA 52632 PH:319-524-8084. 2 channel class will be included - for beginner and expert. Sponsor: KEOKUK AREA RC CLUB/WESTERN IL THRASHERS

IL
8/18/00 - 8/19/00 —Lansing, IL (AA) 23rd Annual Thorncreek Classic for 401, 402, 403, 404, 406(JSO). Site: Club Field. Frank Purpura CD, 360 LeRose Dr Chicago Heights IL 60411 PH:708-754-4667. Sponsor: THORNCREEK RC CLUB

IL
8/19/00 —Rockford, IL (C) Cub Fun Fly. Site: Park District. Richard Shields CD, 639 S Main St Rockford, IL 61101 PH:815-962-8835. Sponsor: ROCK VALLEY RC CLUB

IL
8/20/00 —Streator, IL (C) Fly In Breakfast. Site: Club Field. Thomas Vagasky CD, 607 Fuller Ave Streator IL 61364 PH:815-672-0931. 8th annual fly in breakfast. All sizes aircraft welcome, 600' runway, no obstructions. Join us for breakfast and of flying. Sponsor: STREATOR RC FLYERS

IL
8/20/00 —Rolling Meadows, IL (C) Fly In. Site: Ned Brown Forest Preserve. Leroy Cordes CD, 1412 W Mood Ave Chicago IL 60660 PH:773-338-0155. Chicagoland Big Scale 7th annual Big Bird fly-in. Registration 8:30AM, fly 9AM to 2PM. Prizes and refreshments. Sponsor: CHICAGOLAND RC MODELERS/CHICAGOLAND BIG SCALERS

IL
8/26/00 - 8/27/00 —Champaign, IL (C-Restricted) Giant Plane Fly In. Site: Club Field. Larry Windingland CD, 804 Goldenview Dr Champaign, IL 61821 PH:217-356-6991. Landing fee $20, register 8AM, fly 9AM. Channels 17, 18, 26, 43, 44, 50, 51 are bad frequencies. Club field 2 mi west of Mattis Ave on Hwy 150, north side of road. Two asphalt runways plus grass. Concessions and raffle. Sponsor: CHAMPAIGN COUNTY RADIO CONTROL CLUB

IL
8/27/00 —Rockford, IL (C) Air Show. Site: Park District. Denis Bielick CD, 1633 N Sauk Trail Oregon, IL 61061 PH:815-732-4039. Sponsor: ROCK VALLEY RC CLUB

IL
8/27/00 —Riverdale, IL (C) Giant Scale Fly In. Site: Kickapoo Woods. John Spencer CD, 17720 Cedar Ave Country Club Hills IL 60478 PH:708-799-0213. Sponsor: CHICAGO MODEL MASTERS

IL
8/27/00 —Machesney Park, IL (AA) Rockford Open/PAMPA Stunt for 323, 324,325, 326(JSO). Site: Kieselberg Forest Preserve. Mark Boesen CD, 9714 N Alpine Rd Machesney Park, IL 61115 PH:815-877-3912. Four classes PAMPA stunt. Awards to 4th place (special award for highest scoring Jr & Sr). Playground for kids, lots of shade tree, food available. Sponsor: ROCKFORD AEROMODELERS

IL
8/27/00 —Mt Vernon, IL (C) Military Fly In. Site: Club Field. Sam Hart CD, 1812 Harlan Rd Mt Vernon IL 62864 PH:618-242-0451. Exit 83 off I-57 to Rend Lake College. Food & facilities available. $5 landing fee. Starts at 9AM. Any size and era military plane allowed. Sponsor: REND LAKE RC CLUB

IN
8/05/00 - 8/06/00 —Sellersburg, IN (AA) Indiana/Kentucky Championship for 323, 324, 325, 326, 509(O). Site: Clark Co Airport. Byron Barker Jr CD, 407 Mt Tabor Rd New Albany IN 47150 PH:812-944-8511. Sponsor: SKYLINERS

IN
8/11/00 —Elwood, IN (C) 2610 (704) WWII Combat. Site: Club Field. Ron Pierce CD, 566 E 300 N Anderson IN 46012 PH:765-649-5782. Field located 6 1/2 mi north of Elwood on St Rd 13 to Co Rd 1850 N then east 1/2 mile. Sponsor: MADISON COUNTY RC FLYERS

IN
8/12/00 - 8/13/00 —Muncie, IN (A) F.C.M. Stunt Championship for 323, 324, 325, 326(JSO). Site: International Aeromodeling Center. Allen Goff CD, 2100 Carrolton Dr Muncie, IN 47304 PH:765-759-7473. Stunt clinic on Sat, PAMPA stunt on Sun. Sponsor: FELLOWSHIP OF CHRISTIAN MODLERS

IN
8/12/00 - 8/13/00 —Muncie, IN (AA) N.O.F.F.A. Summer Free Flight Contest for 101(JS)(O), 102-104, (124, 153)(JSO), 140, 142(J)(SO). Site: International Aeromodeling Center. Warren Welsenbach CD, 4568 W 146th St Cleveland OH 44135 PH:216-671-8623. Sponsor: NORTHERN OHIO FREE FLIGHT ASSN

IN
8/13/00 —Lafayette, IN (C) Lafayette, IN (C) Battle On The Wabash. Site: McCallister Park. Jack Brewer CD, 2202 Beck Ln Lafayette, IN 47909 PH:765-474-1738. RCCA 2610 combat. $10 fee. Sponsor: LAFAYETTE CLOUD JOCKEYS

IN
8/13/00 —Brazil, IN (C) Competition Fun Fly. Site: Club Field. Dr Charles Gray CD, 800 N State Rd 46 Terre Haute IN 47803 PH:812-877-9215. Typical fun fly type events like bomb drop, limbo, and timed events. Sponsor: BRAZIL WINGED MODELERS

IN
8/19/00 —Wheeler, IN (C) Flying Flea Market. Site: Rainford Field. Stan Zolodz CD, 1659 W 98th Pl Crown Point, IN 46307 PH:219-662-1355. Tailgate flea market starts at 9AM, cost $10. Open flying starts at 12:30PM. Admission $2 per person. Dealers welcome. Come buy, sell and fly with us. Food on site. Sponsor: MIDWEST SUNDOWNERS

IN
8/19/00 - 8/20/00 —Mooreland, IN (C) IMAA Fly In. Site: Club Field. Gary Bussell CD, 5000 West Connie Dr Muncie, IN 47304 PH:765-288-3541. Sponsor: HENRY CO WRIGHT FLYERS

IN
8/26/00 —Muncie, IN (C) 38th Annual Fall Old Timers. Site: International Aeromodeling Center. Robert Warmann CD, 245 N Oaklawn Ave Elmhurst IL 60126 PH:630-834-9075. National Cup contest (Nostalgia), OT A-gas, B-gas, C-gas; Nostalgia early 1/2A, 1/2A (ABC) gas; OT large rubber, Goldwock/Jabberwock, OT HLG/catapult glider, twin pusher mass launch (JSO). Sponsor: CHICAGO AERONUTS

IN
8/26/00 - 8/27/00 —Muncie, IN (AA) 40th Annual FAI Invitational for 150, 151, 152, 153, 154, 155(JSO). Site: International Aeromodeling Center. Charles Markos CD, 655 Carlisle Ave Deerfield, IL 60015 PH:847-945-9225. An America's Cup contest: F1A, B, C on Saturday. F1G, H, J on Sunday. Sponsor: CHICAGO AERONUTS

IN
8/26/00 - 8/27/00 —New Haven, IN (C-Restricted) 19th Annual Giant Scale Fly In. Site: 1701 Western Rd. Richard Zimmerman CD, 6616 Bay Berry Dr Ft Wayne IN 46825 PH:219-483-3653. AMA/IMAA required. 4 1/2 miles east of New Haven on Dawkins Rd to Webster Rd. $5 landing fee. Primitive RV, concessions, & facilities. Registration 8AM, fly 9AM. 300x800' grass. Sponsor: FT WAYNE FLYING CIRCUITS

IN
8/27/00 —Muncie, IN (AAA) 57th Annual Midwest States Championships for 101, 120, 142(J)(SO) and 102-103, 104-105, 124, 128, 140, (106,160-163)(JSO). Site: International Aeromodeling Center. Charles Markos CD, 655 Carlisle Ave Deerfield, IL 60015 PH:847-945-9225.National Cup Contest. High point awards for Jr, Sr age classes. High point awards for rubber, glider, power and 1/2A classes. Sponsor: CHICAGO AERONUTS

IN
8/27/00 —Dunlapsville, IN (C) Flying Circus. Site: Club Field. Chris Bostick CD, 324 South 21st Richmond IN 47374 PH:765-935-4842. Sponsor: WHITEWATER VALLEY RC

KS
8/12/00 - 8/13/00 —Wichita, KS (AAA) Air Capital Champs for 312, 317, 319, 320, 321, 323, 324, 325-326(JSO), 305(JS), 313(JS)(O). Site: Planeview Park. Mike Tallman CD, 3014 Exchange Wichita KS 67217 PH:316-524-4004. O.T. classes & P-40 stunt, spl rules. CL - II & Goldberg, spl rules. Sportsman carrier, spl rules. Sponsor: WICHIHAWKS MAC

KS
8/25/00 - 8/27/00 —Wichita, KS (C-Restricted) 4th IMAA District 9 "Festival of Giants"/20th Wichita RC Aircraft Airshow. Site: Lake Afton County Park. Don Pemberton CD, 9112 Hickory Ln Wichita KS 67212 PH:316-722-9455. AMA & IMAA membership & IMAA legal aircraft required. 500' grass runway. Saturday evening dinner. RV & camping sites available. Sponsor: WICHITA RADIO CONTROL CLUB/THE MINIATURE AIRCRAFT CLUB

KY
8/11/00 - 8/13/00 —Lexington, KY (C) Bluegrass Festival Of Giants. Site: LMAC Facility. Ed King CD, 3521 Cornwall Dr Lexington, KY 40503 PH:606-224-3484. Landing fee $15, 50x600' blacktop runway, adjacent 100x600' grass runway. Food on site. Ample overnight parking, no hook ups. Take I-64E to exit 87, follow signs. Sponsor: LEXINGTON MODEL AIRPLANE CLUB

KY
8/12/00 - 8/13/00 —Paducah, KY (AA) National Fun Fly Championship for 706(JSO). Site: Club Field. Charles Reeves CD, 8310 Moore Rd Paducah KY 42001 PH:270-554-9920. Camping available at field. No hook ups. Map, motel info, rules available from http://www.geocities.com/Pipeline/Valley/2423 or from Gary Williams, 86 Tom Taylor Trial, Murray KY 42088 PH:270-759-1865 or e-mail gwilliams@wk.net. Sponsor: PADUCAH AERO MODELERS/NATIONAL COMPETITION FUN FLY ASSN

KY
8/26/00 - 8/27/00 —Lexington, KY (A) Mid America Soaring Championship for 443 and 444(JSO). Site: Jacobsen Park. Tom Bruszewski CD, 4840 Bud Lane Lexington KY 40514 PH:606-224-1069. Also 3 function class limited to rudder, elevator, spoilers and fixed wing trailing edge. Sponsor: BLUEGRASS SOARING SOCIETY

MA
8/12/00 —Sudbury, MA (A) CRRC Soar In for 444(JSO). Site: Davis Farm, Fritz Bien CD, 41 Saw Mill Rd Concord MA 01775 PH:978-369-1720. Sponsor: CHARLES RIVER RC'ERS

MA
8/13/00 —Sudbury, MA (A) CRRC Soar In for 444(JSO). Site: Davis Farm, Anker Berg-Sonne CD, 8 Middlemost Way Stow, MA 01775 PH:978-897-1750. Sponsor: CHARLES RIVER RC'ERS

MA
8/20/00 —Bridgewater, MA (C) Great New England Scale Fly In. Site: Club Field. Richard Sarkesian CD, 42 Cushing Ave Revere MA 02151 PH:781-289-9685. Registration begins at 9AM, static judging and flying starts at 10AM. No builder of model rule. Categories for military, civilian, and aerobatic. Two flight lines, prizes for 1st, 2nd, 3rd place, must fly to qualify. Sponsor: SOUTH SHORE RADIO CONTROL CLUB

MA
8/27/00 —Hadley, MA (C) HCRC Annual Scale Fun Fly. Site: Club Field. Mark Mundle CD, 2 Boyce Rd Southwick MA 01077 PH:413-569-0202. Annual scale and semi-scale fun fly. $5 landing fee for pilots. Food available. All military or CIU planes welcome, big or small. Great field, great time. Prizes & raffle. No trainers please. Sponsor: HAMPSHIRE COUNTY RADIO CONTROL

MD
8/12/00 - 8/13/00 —Sykesville, MD (AA) Hank Flagg Memorial Pattern Contest for 401, 402, 403, 404, 406(JSO). Site: State Hospital. Richard Bis CD, 5513 Ridge Rd Mt Airy MD 21771 PH:301-831-7469. Sponsor: SCAM

ME
8/19/00 - 8/20/00 —Topsham, ME (C) BAM Fun Fly. Site: Club Field. Edward Schmidt CD, 22 Magean St Brunswick ME 04011 PH:207-729-8017. Sponsor: BRUNSWICK AREA MODELERS

Contest Calendar

ME
8/20/00 —E Waterboro, ME (AA) 10th Annual Bush Pilots Pattern Classic for 401, 402(JSO). Site: Club Field. Toby Guimond CD, HCR 72 Box 5525 E Waterboro, ME 04030 PH:207-247-5008. A special pre-novice event will be flown. Any "trainer" type aircraft can fly it. Take off, fly past, horizontal eight, 1 inside loop, 1 roll of any type, landing to be judged. Buddy box assistance allowed with a 50% deduction in score of each maneuver assisted. Sponsor: RC BUSHPILOTS

MI
8/05/00 - 8/06/00 —Lennon, MI (C-Restricted) Annual Big Bird Fun Fly. Site: Baker Field. John Palmer CD, 9304 E Henderson Rd Corunna MI 48817 PH:810-638-5704. Sponsor: FLINT AERO RC CLUB

MI
8/05/00 - 8/06/00 —Clio, MI (C) Greater Flint Fun Fly. Site: Buell Lake Co Park. Carey Hook CD, 61 Ashley Circle Swartz Creek MI 48473 PH:810-630-0802. I-75 to exit 131 (Clio) go east approx 7 miles to N Genesee Rd, north on Genesee 1.8 miles. No landing fee, free pilots lunch, door prizes. Sponsor: GREATER FLINT UPSTARTS

MI
8/12/00 —Lake Orion, MI (C) Multi-Engine/Multi Wing. Site: Scripps Road Field. Carl Brausa CD, 18 Sparrow Hill Orion MI 48359 PH:248-373-8949. Multiple engines or multiple wings (or both). For more info Gary Walling PH:248-299-4654 or www.geocities.com/~skymasters. Sponsor: SKYMASTERS RADIO CONTROL CLUB

MI
8/12/00 - 8/13/00 —Maple City, MI (A) Northern Michigan Soaring Championship for 442, 443, 444(JSO). Site: Club Field. Troy Lawicki CD, 8344 Bingham Rd Traverse City MI 49684 PH:231-929-3816. Trophies through 3rd place each day plus 2 day winner trophies. Three 12 volt winches & retrievers will be utilized. Sponsor: L.I.F.T.

MI
8/13/00 —Chesaning, MI (C) Big Bird. Site: Club Field. Mike Reiber CD, PO Box 3251 Montrose MI 48457 PH:810-639-5309. Big bird event. Water and food on site. I-75 exit 131 (Vienna Rd - M57) west approx 10 mi to M13(Sheridan Rd). North 2 miles to Chesaning Rd, west on Chesaning 2 1/4 miles to flying site. Sponsor: CHESANING MODEL FLIERS CLUB

MI
8/16/00 —Chesaning, MI (C) Chesaning Heli Fly In. Site: Club Field. Carl Brausa CD, 18 Sparrow Hill Orion MI 48359 PH:248-373-8949. Restricted to rotary winged aircraft. Sponsor: CHESANING AREA MODEL FLYING CLUB

MI
8/19/00 - 8/20/00 —Detroit, MI (C-Restricted) Giant Size Air Show Fun Fly. Site: Rouge Park. Stanley Spiewak CD, 9101 Sioux Ave Redford Twsp MI 48239-1909 PH:313-937-0014. No landing fee, free parking, free lunch, free memorabilia, entertainment, RV parking, no hook ups. Sponsor: DETROIT AERO MODELERS

MI
8/20/00 —Milford, MI (A) Summer Soar In for 442, 444(JSO). Site: Club Field. Al Sorensen CD, 22408 Olmstead Dearborn MI 48124 PH:313-274-8712. This is the 2nd year that our event will be held at beautiful Camp Dearborn. Bring the family along and let them enjoy all of the park amenities. This year we will fly RES in lieu of standard. Sponsor: MISS

MI
8/26/00 —Adrian, MI (C) Big Bird Fly In. Site: Heritage Park. Larry Dalrymple CD, 31590 Taft Wayne MI 48184 PH:734-722-2489. No pilot fee. Contact Don Garman PH:517-436-3610 or Mike Diley PH:419-923-4231. AMA required, flying starts 9AM. Food & refreshments available. Sponsor: BITS & PIECES CLUB

MI
8/26/00 - 8/27/00 —Watervliet, MI (C) 13th Annual Watervliet Fun Fly. Site: Airport. Kelly Rankin CD, 1812 Prairie St Elkhart IN 46516 PH:219-295-2800. Sponsor: MICHIANA RC CHOPPERS

MI
8/26/00 - 8/27/00 —Westland, MI (AA) Michigan Control Line Champs for 323, 324, 325, 326, 328, 329, 509(JSO). Site: Club Field. Pete Bergstrom CD, 7526 Balfour Allen Park MI 48101 PH:313-928-8260. Saturday Old time & classic stunt, slow combat. Sunday precision aerobatics (skill classes), fast combat & scale events. Sponsor: SIGNAL SEEKERS RC CLUB

MI
8/27/00 —Ishpeming, MI (C) Bay Cliff Fun Fly. Site: Club Field. Amos Bell CD, 2042 Montgomery Marquette MI 49855 PH:906-228-6235. Sponsor: NORTHERN AIR MODELERS

MN
8/05/00 - 8/06/00 —Minneapolis MN (AA) Upper Midwest Scale Masters Championships for 512, 520, 522(JSO). Site: 3M Field. Cal Branton CD, 4388 Dorchester Dr Woodbury MN 55129 PH:651-459-5107. Documentation not required in Fun Scale - no penalty. Sponsor: SCALE FLYERS OF MINNESOTA/3M RC

MN
8/05/00 - 8/06/00 —Bemidji, MN (A) Pattern for 401, 402(JSO). Site: Club Field. Frederick Sanford CD, 3607 Waville Rd NE Bemidji MN 56601 PH:218-751-0869. For details contact Chuck Cravens PH:218-224-2701. Primitive camping on site. Sponsor: NORTH COUNTRY MODEL CONTROLLERS

MN
8/12/00 —Claremont, MN (C) Scale Saturday Fly In. Site: 14764 650 St. David Andersen CD, 12106 Red Oak Crt S Burnsville MN 55337 PH:612-890-9529. Grass field on Gene Hallaway farm, $3 donation. Food & pop. All sizes of scale aircraft welcome. Sponsor: SCALE FLYERS OF MINNESOTA

MN
8/12/00 —Farmington, MN (A) Summer Challenge 2000 for 442, 443, 444(JSO). Site: Jink Sod Farm. Brian Brinkman CD, 3430 Midway Rd Proctor MN 55810 PH:218-628-1076. Beginner, intermediate and advanced classes. Rain date August 13. Pilots meeting 10AM sharp. Call CD for updated information. Sponsor: MINNESOTA RC SOARING SOCIETY

MN
8/13/00 —North Branch, MN (AA) Almost Silent Meet for 120, 124, 140, 142, 150, 153, 154(JSO). Site: Sod Farm. Gary Oakins CD, 291 Jay St St Paul MN 55110-1862 PH:651-429-3150. Sponsor: MINNEAPOLIS MODEL AERO CLUB

MN
8/26/00 —Park Rapids, MN (C) Headwaters RC Airplane Club Fun Fly. Site: Club Field. John Krekelberg CD, HC 06 Box 233A Park Rapids, MN 56470 PH:218-732-5343. $5 flying fee. All types of planes welcome. On site concessions, flyer awards, raffle. Grass runways. Swappers welcome. Flying begins at 11AM. Sponsor: HEADWATERS RC FLYING CLUB

MO
8/19/00 —Lee's Summit, MO (C-Restricted) 49th Mid-America Jumbo Squadron Jamboree. Site: Fleming Park Flying Field. Jay Crowley CD, 17201 E 44th Ter Ct S Independence MO 64055 PH:816-478-3698. IMAA fly-in. Flying 9AM to 5:30PM. Registration 8AM. $15 landing fee. Paved runway 40x500' or grass. Camping facilities avail in park. Plenty of room for shelters/tents. Concessions on field. Free dinner for pilots & family. E-mail wjcrowley@worldnet.att.net. Sponsor: 49TH MID-AMERICA JUMBO SQUADRON

MO
8/19/00 - 8/20/00 —Springfield, MO (C) Float/Fun Fly. Site: Springfield Lake. Harold Wessel CD, 12601 State Hwy KK Marshfield, MO 65706 PH:417-859-3126. All aircraft row, all flying over water. Lake Springfield is only 45 minutes from Branson MO. No camping on site but near. Cash prize competition first day. $5 daily landing fee. Sponsor: SPRINGFIELD RC CLUB

MO
8/20/00 —Valley Park, MO (AA) Western KY/Southern IL Stunt Championships for 323, 324, 325, 326(JSO). Site: Buder Park, Allen Brickhaus CD, PO Box 206 Goloconda, IL 62938 PH:618-683-7611. "Basic flight" event. Skill level precedes PAMPA beginner #323. PAMPA old timer stunt, PAMPA classic. Write CD for "basic flight" pattern description & score sheet. Also give "Highest scoring Junior" and "Highest scoring Senior" in PAMPA classes. Framed certificates to 3rd place. Sponsor: LAFAYETTE ESQUADRILLE CL MODEL AIRPLANE CLUB

MO
8/26/00 - 8/27/00 —Warrensburg, MO (AA) Mid MO Model Glider Regalta for 441, 442, 444(O). Site: Dyer Turkey Farm. Stanton Runyan CD, 2105 Willow Higginsville MO 64037 PH:660-584-2655. There will be an unsanctioned RES class. Tasks for all classes will be announced. For information e-mail at mlrunyan@cteis.net. Sponsor: MID MISSOURI MODELERS

MT
8/05/00 - 8/06/00 —Billings, MT (C) RC Combat. Site: Chamberlain Field. Ronald Horton CD, 1129 Eldora Ln Billings, MT 59105 PH:406-259-1900. 4th annual Northwest Nationals. Largest scale RC combat in the world. 2610 RCCA rules. $50 entry fee, restricted to 60 pilots. Frequency allocations. Sponsor: BILLINGS FLYING MUSTANGS

MT
8/12/00 - 8/13/00 —Deerlodge, MT (C) Hi Plains Jets Jet Fly. Site: County Airport. Duane Habets CD, 15 S Virginia Conrad MT 59425 PH:406-278-3380. AMA turbine waivers required. Sponsor: BIG SKY RC MODELERS

NC
8/12/00 —High Point, NC (C-Restricted) CC RC IMAA Fly In. Site: Club Field. Robert Underwood CD, 1300 Lakecrest Ave High Point NC 27265 PH:336-885-2318. 80" mono, 60" bipe or true 1/4 scale. Restrooms on site, camping, no hook ups, good food and refreshments. $5 landing fee, AMA & IMAA required and available at field. Great flying site. Sponsor: CENTRAL CAROLINA RADIO CONTROL CLUB INC

NC
8/19/00 —Davidson, NC (C) Fun Fly. Site: Club Field. Arnold Mills CD, 1177 Hedgecock Rd High Point NC 27265 PH:336-869-3873. $5 landing fee, food & drinks available, only fixed wing aircraft, lots of fun. Sponsor: TRIAD AEROMODELERS INC

NC
8/26/00 —Kinston, NC (C-Restricted) Dick Warren Memorial Fly In. Site: Club Field. Les May CD, 758 Colony Place Kinston NC 28501 PH:252-522-3519. Food & sanitary facilities on site. Club field off Hull Rd next to cemetery. IMAA rules, 80", 60", or true 1/4 scale. Sponsor: RICHARD CASWELL AERONAUTS

ND
8/04/00 - 8/06/00 —Fargo, ND (C) Valley RC Flyers Annual Fun Fly. Site: Club Field. Jeffrey Stremick CD, 1203 43rd Ave N Fargo ND 58102 PH:701-298-8304. RV welcome. Concession & restrooms on site. 800' grass runway. Upper midwest's finest RC field. E-mail strem@aol.com. Sponsor: VALLEY RC FLYERS

ND
8/12/00 —Casselton, ND (C) Dakota Skymasters Annual Fun Fly. Site: Airport. Paul Kegel CD, 910 N 12th St Fargo ND 58102 PH:701-237-3901. Fun fly events: timed flight, carrier landing, bean (not) drop. Sponsor: DAKOTA SKYMASTERS

ND
8/18/00 - 8/20/00 —Bismarck, ND (C) Art May Memorial Fun Fly. Site: McDowell Field. Rod Matzke CD, 1316 Albany Dr Bismarck ND 58504 PH:701-255-3893. Sponsor: MISSOURI SLOPE MODEL AERO CLUB INC

ND
8/26/00 - 8/27/00 —Minot, ND (C) 3rd Annual North Dakota Fun Fly. Site: Club Field. Lanny Wade CD, 1825 Parkside Dr Minot ND 58701 PH:701-852-2378. Fly in beautiful unobstructed spaces of North Dakota. Two 550 ft long grass runways. RV/camping with electrical hook ups. Landing fees include Saturday supper. Food, beverage & toilet facilities on site. Special events planned for Friday night. Sponsor: MINOT AIRCRAFT MODELERS

NE
8/06/00 —Grand Island, NE (C) G. I. Modelers/Hi Flyers Fun Fly. Site: Club Field, John Boord Sr CD, 1315 E 6th St Grand Island NE 68801 PH:308-382-7627. Check in time 8AM. Flying all day, lunch available. Raffle prizes, $10 landing fee. For additional info contact CD or John Boord Jr PH:308-382-1727 e-mail boord@juno.com. Sponsor: GRAND ISLAND MODELERS

NE
8/19/00 - 8/20/00 —Lincoln, NE (AA) Don Neill Memorial Scale Contest for 511, 512, 520, 522(JSO). Site: Club Field. Glen Lau CD, 3701 S 44th St Lincoln NE 68506 PH:402-489-4701. Cash prizes to 3 places each event. Fees: $15 entry fee pre-registration, $20 on site. Sponsor: LINCOLN SKY KNIGHTS

NE
8/19/00 - 8/20/00 —Meade, NE (C-Restricted) 11th Annual Bud Hall Memorial Fun Fly. Site: State Xper Farm. Robert Hess CD, 11734 Hickory Rd Omaha, NE 68144 PH:402-334-1092. IMAA fun fly. IMAA rules apply. Sponsor: WESTERN RC FLYERS INC

NE
8/27/00 —Hastings, NE (C) Super Fly XI. Site: Club Field. Mark Bergt CD, 305 N Linden Box 217 Davenport NE 68335 PH:402-364-2406. Lunch available at field. Sponsor: HASTINGS SKYLARKS

NJ
8/06/00 —Middlesex, NJ (AA) Precision Aerobatics for 323, 324, 325, 326(J)(SO). Site: Mountainview Park. Carlos Serra CD, 509 Elsie Ave S Plainfield NJ 07080 PH:908-756-6941. Old time stunt - GSCB rules. Classic stunt. Trophies to 5 places - all events. Sponsor: MIDDLESEX MODELERS INC

NJ
8/06/00 —Egg Harbor, NJ (C) Annual SAM 12 Oldtimers Meet. Site: Renault Winery. Roy Wilson CD, 6314 Oliver Ave Mays Landing NJ 08330 PH:609-625-3472. 1/2A Tex scale 5.1 cc, 1/2A Tex 5.1 cc, LER glow ABC comb, LER ign ABC comb, LER Brown Jr 60 sec motor run, 20 min max. Great food available at the field. Sponsor: ATLANTIC COUNTY SKYELAZERS

NJ
8/12/00 —Lakehurst, NJ (C) 9th Annual Catapult Rally. Site: Navy Base. Salvatore Piu CD, 844 Spray Ave Beachwood, NJ 08722 PH:732-349-4883. Restricted to ducted fan or jet powered RC model airplanes. Trophies for best scale static display, best sport static display, CD's choice award. Sponsor: OCEAN COUNTY MODELERS

NJ
8/13/00 —Sewell, NJ (A) 1/2A Challenge for 312, 315, 317(JSO). Site: Gloucester Co Institute of Technology. Phil Valente III CD, 1523 Ulster Way West Chester PA 19380 PH:610-692-6469. 314 - 1/2A Mouse II, 315 - 1/2A Scale Racing, 317 - 1 oz Goodyear, .014x60' solid lines, 312 - 2 oz big Goodyear, .018x60' solid lines. Sponsor: SOUTH JERSEY AEROMODELERS

NJ
8/20/00 —Middlesex, NJ (AA) New Jersey Summer Racing Championships for 312, 314, 315(J)(SO). Site: Mountainview Park. John David King CD, 410 Ritter Ave S Plainfield NJ 07080 PH:908-769-5149. 314 - Class II mouse, 315 - Class I Goodyear, 312 Clown race - GSCB rules. Trophies to 5 places in Clown race. Sponsor: MIDDLESEX MODELERS INC

NV
8/19/00 —Carson City, NV (A) HSRC Radio Control Fun Scale for 520(JSO). Site: Club Field. Donald Morse CD, 3965 Knoblock Rd Carson City, NV 89706 PH:775-883-5067. 520 fun scale & team fun scale. 5 mandatory maneuvers + 3 optional maneuvers or operations. Sponsor: HIGH SIERRA RC CLUB

NY
8/05/00 - 8/06/00 —Macedon, NY (D) RAMS Open House. Site: Club Field. Andres Rodriguez CD, 659 N Cove Dr Webster NY 14580 PH:716-264-6939. Fly-in and open house. Public and AMA pilots invited. Food and refreshment available at the field. Starts at 10AM Sat and Sun. Sponsor: ROCHESTER AERO MODELING

NY
8/05/00 - 8/06/00 —Hamburg, NY (C) Scale Rally 2000. Site: Model Airport. Ron Partacz CD, 33 Brookwood Dr West Seneca NY 14224 PH:716-674-6240. Free camping, no hook ups. Free pilots dinner on Saturday. One radio given away each day to a participating pilot. Http://members.xoom.com/flyknights. Sponsor: THE FLYING KNIGHTS OF HAMBURG NY



The Flying Knights Scale Rally 2000

Sat - Sun August 5th & 6th

10 AM to 5 PM each day at the

Hamburg Recreation Center

Model Airport, Lakeview Rd.

http://members.xoom.com/flyknights

NY
8/05/00 - 8/06/00 —Kirkwood, NY (C-Restricted) High Performance Giant Scale Aerobatic RC Air Show. Site: Kirkwood Air Park. Don Godfrey CD, 91 Blackstone Ave Binghamton NY 13903 PH:607-724-5306. High performance giant scale aerobatic air show. Restricted to lasers, extras, studachers, caps, giles etc. Pitts, Ultimates & Weeks etc. AMA/IMAA rules apply. No landing fee, fantastic flying site, 3500' grass runway, free camping, no hookups, concessions on site. Motels nearby. Sponsor: GIANT SCALE AIRCRAFT ASSN

NY
8/12/00 - 8/13/00 —Eastport, NY (A) Long Island Scale Masters Qualifier for 511, 512(JSO). Site: Club Field. Roy Vaillancourt CD, 18 Oakdale Ave Farmingville NY 11738 PH:631-732-4715. AMA and Scale Masters rules apply. Craftsmanship will be judged at 4 ft. flaps and/or retracts are to be judged as part of realism. $20 entry fee. Sponsor: LONG ISLAND SKYHAWKS

NY
8/12/00 - 8/13/00 —Brockport, NY (C) Great Electric Fly In. Site: Redman Rd. Jerry Joseph CD, 50 Greenvale Dr Rochester, NY 14618 PH:716-244-1981. Sponsor: RADIO CONTROL CLUB OF ROCHESTER

NY
8/12/00 - 8/13/00 —Chenango Bridge, NY (C) Aero's 17th Annual Giant Scale Fly In. Site: Chenango Bridge Airport. Joe Felice CD, 225 Torrance Ave Vestal NY 13850 PH:607-754-2816. Flying allowed on Friday and after fly in hours till 7PM under field rules, requiring 98 db sound limit. No sound limit during fly in 10AM to 5PM Sat & Sun. Sponsor: BINGHAMTON AEROS

NY
8/12/00 - 8/13/00 —Boonville, NY (C) Boonville Balsa Busters Fly In. Site: Club Field. David Bowerman CD, RR 1 Box 263C Boonville NY 13309 PH:315-942-4941. No mandatory flying, registration, have fun flying, swap, sell, buy. Primitive camping, vendors welcome, Sat night supper, bring dish to pass, table setting. Food available, bring the family and enjoy the show and the Adirondacks. Sponsor: BOONVILLE BALSA BUSTERS

Contest Calendar

NY
8/18/00 - 8/20/00 —Geneseo, NY (AA) Empire State Free Flight Champs for Cat III 102, 103-105, 128, 142, 150, 151, 152, 153, 154, 155(JSO), 101, 124, 140(J)(SO). Site: 1941 Air Group Field. Brooks Goodnow CD, 181 State St Auburn NY 13021 PH:315-252-9170. Sponsor: WESTERN NY FREE FLIGHT SOCIETY/1941 HISTORICAL AIRCRAFT GROUP

NY
8/19/00 - 8/20/00 —Glen, NY (AA) 9th Annual Pattern Contest for 401, 402, 403, 404, 406(JSO). Site: Club Field. Ken Kuehner CD, 1215 Co Hwy 107 Ft Johnson NY 12070 PH:518-762-1141. F3A schedule P-01 only. Camping on site, no hook ups. Sponsor: SCREAMIN EAGLES RC CLUB

NY
8/19/00 - 8/20/00 —Hammondsport, NY (C) Glenn Curtiss Museum Fun Fly. Site: Ray Kolos Airport. James R Anderson CD, 8962 Rt 415 Campbell, NY 14821 PH:607-527-8243. Pilot prizes, free admission to museum for pilots & family. Primitive camping, food. rcanders@stny.lrun.com. Sponsor: GLENN H CURTISS MUSEUM OF LOCAL HISTORY INC/THE RC GrPSIES

OH
8/02/00 - 8/06/00 —Hebron, OH (C) 7th Annual Heli International IRCHA World Jamboree. Site: RC Aviation Country Club. Jeff Robb CD, PO Box 190 Hebron, OH 43025 PH:740-928-5300. Pre-reg discount if paid by June 30. World's largest helicopter event, over 40 vendors, mfg display, seminars, demos, large auction, music, food, camping w/full hookups. Visit webpage www.robbco.com or email rcacc@ogate.net. Sponsor: RC AVIATION/IRCHA

OH
8/05/00 - 8/06/00 —Lima, OH (C) L.A.R.K.S. 3rd Fly What You Bring. Site: Club Field. Rodney Metz CD, 123 W Auglaize St Wapakoneta OH 45895 PH:419-739-2007. St Rt 309 to Baty Rd turn south, field on east side, past TV44. Sponsor: L.A.R.K.S.

OH
8/05/00 - 8/06/00 —Centerburg, OH (C-Restricted) CORKS Giant Classics. Site: Centerburg Airport. Bill Folk CD, 6510 Harlem Rd New Albany OH 43054 PH:614-855-7126. 30 miles NE of Columbus on St Rt 3-36. Registration 8AM, fly at 10AM bot days. RV parking no hookups. Concession on ground, motel nearby. AMA and IMAA required. Sponsor: CENTRAL OHIO RADIO KONTROL SOCIETY

OH
8/05/00 - 8/06/00 —Dayton, OH (B-Restricted) CAPS Classic for 422 and 428(JSO). Site: Wright Patterson AFB. Mike Condon CD, 9335 Eastwind Dr Livonia MI 48150 PH:734-464-7027. Restricted to CAPS members only. Sponsor: CAPS

OH
8/12/00 —Yellow Springs, OH (A) Man-On-Man Challenge for 442-444(JSO). Site: Twin Tower Park. Robert Massmann CD, 233 Leslie Dr Wilmington OH 45177 PH:937-382-4612. Contest flown man-on-man. Flights groups with normalized scoring. Soonsor: DAYTON AREA THERMAL SOARERS

OH
8/13/00 —Dayton, OH (AA) Just Racin for 313 and 317(JSO). Site: City Field. R Leslie Byrd CD, 4561 Oaks Rd Eaton OH 45320 PH:937-456-9676. First Mouse I heat at 11AM OH time. 2 freshly resurfaced blacktop circles - smooth as a baby's bottom! Soonsor: DAYTON BUZZIN BUZZARDS

OH
8/13/00 —Elyria, OH (A) CFFS FAC Scale & FF Contest for 140, 142(J)(S)(O). Site: Lorain County Community College. Peter Zbasnik CD, 4310 Woodway Parma OH 44134 PH:216-471-7478. 29 events for FAC scale, Free Flight, & Old Timer Rubber. Sponsor: CLEVELAND FREE FLIGHT SOCIETY

OH
8/13/00 —Yellow Springs, OH (A) DARTS Man-On-Man Thermal Challenge for 444(JSO). Site: Twin Tower Park. Jerry Shape CD, 12166 SR 720 W Lakeview OH 43331 PH:937-843-5085. Man-on-man thermal duration. All classes combined. Times to be set day of contest. Plaques to 5th place. Sponsor: DAYTON AREA THERMAL SOARERS

OH
8/17/00 - 8/20/00 —Ashtabula, OH (C) North Coast Challenge. Site: County Airport. Tony Husak CD, 6029 White Oak Dr Mentor OH 44060 PH:440-257-2948. Sponsor: MARCS

OH
8/19/00 —Fostoria, OH (C-Restricted) 4th Annual Giant Fun Fly. Site: Fostoria Metropolitan Airport. Jim Hayes CD, 686 S Sandusky Lot 44 Tiffin OH 44883 PH:419-448-5525. Overnight camping, no hook ups. Sanitary facilities, food service available. Routes marked to airport site. Sponsor: NORTHERN OHIO BALSA SCALERS

OH
8/19/00 - 8/20/00 —Cincinnati, OH (AA) Queen City Speed Meet for 301, 302, 303, 306, 307, 310(JSO) and 304, 308, 309(SO). Site: Lunken Field. Ken Barthel CD, 5953 Winnetka Dr Cincinnati OH 45236 PH:513-793-2239. Sponsor: QUEEN CITY U CONTROL CLUB

1ST ANNUAL
GIANT SCALE
AIR RACE
NORTH COAST CHALLENGE
AUGUST 17-20, 2000
ASHTABULA CO. APRT.
JEFFERSON, OHIO
PRESENTED BY:
BOB SMITH
INDUSTRIES
FOR INFO CONTACT:
WWW.USRA-RACERS.ORG
OR
PMKTPK@COMPUSERVE.COM

OH
8/19/00 - 8/20/00 —Harrison, OH (C-Restricted) Cliff Kell Memorial Fly In. Site: Club Field. James Dimitt CD, 131 Glen Lake Rd Loveland, OH 45140 PH:513-683-7573. Exit Interstate 275 at Kilby Road and follow the signs. Maps & flyers available at jrdimitt@fuse.net or call 513-683-7573. Sponsor: 169TH BLUE CHIP SQUADRON

OH
8/20/00 —Quincey, OH (C) Fun Fly. Site: S & S Field. Frank Mangier CD, 103 N Mail PO Box 62 Botkins OH 45306 PH:937-693-8302. Plenty of parking. Food & drinks, vendors welcome. Tailgate swap meet. Sponsor: TOP OF OHIO RC SQUADRON

THE OHIO RADIO KONTROL SOCIETY
PRESENTS
THE 10TH ANNIVERSARY
HEART OF OHIO JET SCRAMBLE
DARBY DAN AIRPORT
7535 W. Broad Street
Columbus, Ohio
AUGUST 25, 26, & 27, 2000
PRE-REGISTRATION INFORMATION:
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www.rcplanet.com/torks/page4.htm
Three days ..... At the most FABULOUS flying site ANYWHERE !

OH
8/27/00 —Southington, OH (C-Restricted) WAGS Fly In. Site: Skeets Warren Airport. Robert Antonell CD, 1620 N Leavitt Rd NW Warren, OH 44485 PH:330-898-0188. Sponsor: SKYHAWK RC CLUB

OK
8/12/00 —Copan, OK (C) Fun Fly. Site: Copan Air Park. Greg Leich CD, 4312 Fleetwood Dr Bartlesville, OK 74006 PH:918-335-5042. Bring em all, RC and control line fun fly. Pilots prizes awarded, scanner in use, concessions available. $10 landing fee, fly at 9AM. Sponsor: BARTLESVILLE FALCONS MODEL CLUB INC

OR
8/04/00 - 8/06/00 —Hubbard, OR (AA) Evergreen Scale Rally 2000 for 511, 512, 522(JSO). Site: Lenhardts Air Park. Earl Aune CD, 21952 Airport Rd. Aurora OR 97002 PH:503-678-4268. US Scale Masters qualifier rated "most fun" by contestants. BBQ Sat night at Proctor Enterprises. Scale Masters rules apply. http://www.scalemasters.org. Sponsor: PORTLAND SKY KNIGHTS/PROCTOR ENTERPRISES

OR
8/12/00 - 8/13/00 —Banks, OR (C) Fly In. Site: Club Field. Joe Sliwinski CD, PO Box 251 North Plains, OR 97133 PH:503-647-2687. E-mail caverjoe@msn.com. All AMA fly-in, swap meet, 35x450' paved runway, 6 acre pond, large grass park, snack shack. Sponsor: OREGON MINIATURE AIRCRAFT SQUADRON

OR
8/13/00 —Coos Bay, OR (C) S.M.A.L.L. Fly-In. Site: Club Field. Kenneth Asman CD, PO Box 546 Lakeside, OR 97449 PH:541-759-4349. Big fun with small planes! Fly anything but engine must not exceed .26 cu in. Sponsor: BAY AREA RC FLIERS

OR
8/19/00 - 8/20/00 —Cape Blanco, OR (C) Safari 2000. Site: Cape Blanco State Park, Mike Shaw CD, 3261 Olive Barber Rd Coos Bay OR 97420 PH:541-269-2423. 3rd annual fun fly. Awards, BBQ, cheap group camp for participants & vendors, $10 fee, co-sponsored by the Oregon state parks. Slope soaring at cape and inland location. Contact CD or web site for info or pre-registration http://clubsos.homestead.com/indexweb3.html. DS soaring & radar speed tickets, all kinds of soaring at cape. Big bird & other thermal at inland site. Absolutely no cancel, no matter what! Sponsor: SOS

OR
8/19/00 - 8/20/00 —Tangent, OR (AAA) NW Free Flight Championships for Cat II 101, 102, 103-105, 120, 142, 150-152, 153-154, 155(JSO), 124, 140(J)(SO). Site: Parker's Field. Bruce Grell CD, 519 S 5th St Jefferson OR 97352 PH:541-327-1530. Full range of AMA and NFFS events. This is a National Cup Competition and America's Cup Competition. Sponsor: WILLAMETTE MODELERS CLUB

OR
8/26/00 - 8/27/00 —Salem, OR (AA) 4th Annual Wolf Summer CL Contest for 313(JSO)(O), 317, 323, 324, 325, 326(JSO). Site: Salem Airport. Mike Hazel CD, 1073 Windemere Drive NW Salem OR 97304 PH:503-364-8593. Additional events classic stunt, NW sport race, NW flying clown race, NW super sport race, NW 80 mph combat. Sponsor: WESTERN OREGON CONTROL LINE FLYERS

PA
8/05/00 —S Montrose, PA (A) Fly In With 704(O). Site: Zaverton Airport. Allen Harvey CD, Rr 2 Box 4330 Kennedy Rd Brackney PA 18812 PH:570-663-2413. 2100' grass runway. Giant scale welcome. For more information visit our web site www.dlmorgan.com/emrc/. Sponsor: ENDLESS MTNS RC CLUB

PA
8/05/00 —McKean, PA (A) 4th Annual Summer Scramble for 140, 142(JSO). Site: Millfair Rd. Joseph Bama CD, 3517 Kristle Dr Erie PA 16506 PH:814-833-4985. Sponsor: ERIE MODEL AIRCRAFT ASSN

PA
8/05/00 - 8/06/00 —Transfer, PA (C) Skylarks CL Fly In. Site: Club Field. George Elliot CD, 136 Boyd Dr Hermitage PA 16148 PH:724-342-2990. Sponsor: SKYLARKS OF SHARON, PA

PA
8/05/00 - 8/06/00 —Marshalls Creek, PA (AA) 2000 Pocono Pattern Contest for 401-406(JSO). Site: Delaware Watergap Nat Park. Joe Lachowski CD, 242 Old York Rd Bridgewater NJ 08807 PH:908-704-9447. Two day pattern contest, FAI schedule P-01 only. Registration till 10AM Sat Aug 5. Sponsor: ROXBURY MODEL AIRPLANE CLUB

PA
8/05/00 - 8/06/00 —Quakertown, PA (C-Restricted) 5th Annual "Warbirds Over Pennsylvania". Site: Club Field. Bruce Kane CD, 2784 Forrest Dr Coopersburg, PA 18036 PH:610-282-3552. Sponsor: BUC-LE AERO SPORTSMEN INC

PA
8/06/00 —Hershey, PA (A) East Coast Super Slow Combat Championship for 328(JSO). Site: Shank Park. Philip Cartier CD, 1249 Jill Dr Hummelstown PA 12036 PH:717-566-3810. E-mail philcartier@earthlink.net. Speed limit 7.25 sec/2 laps, any fuel system, 018 lines. Modified matching (4 rounds), modified scoring. Sponsor: HARRISBURG AEROMODELLING SOCIETY

PA
8/12/00 —Erie, PA (C) Thermal G Model Airshoor. Site: Erie County Tech School. Salvatore Cerrie CD, 9198 W Main Rd North East, PA 16428 PH:814-725-5590. Low key flying demos, IMAA flyers welcome. High public relations, 11AM to 4PM, static displays, no channel 48. Sponsor: THERMAL G RC CLUB

PA
8/12/00 —Rostraver, PA (C-Restricted) 15th Annual Three Rivers Giant Scale Fly In. Site: Cedar Creek Park, Chuck Pusateri CD, PO Box 17068 Pittsburgh PA 15235 PH:412-795-9344. Sponsor: MON VALLEY RC/MON VALLEY CONDORS

PA
8/13/00 —Wyoming, PA (C) Open House & Fun Fly. Site: Club Field. Tom Hizny CD, 73 Pine St Pittston PA 18640 PH:570-655-9460. By invitation only. Refreshments available. Spectator buddy box flying available. Flying begins at 10:30AM, registration 9:30AM. Aircraft demonstrations. Proceeds to benefit charity. Sponsor: BLACK SHEEP SQUADRON FLYERS OF WYOMING VALLEY

SC
8/19/00 —Orangeburg, SC (A) ORCC 1/2A Duration for 702(JSO). Site: Club Field. Hollis Fenn CD, 31 Pecan Ln Barnwell SC 29812 PH:803-259-7749. 702 duration, wing span and loading rules waived. Entry fee $5 includes lunch. Merchandise prizes to third place. Fenn@sc.tds.net. Sponsor: ORANGEBURG RADIO CONTROL CLUB

SD
8/06/00 —Sioux Falls, SD (C-Restricted) Donovan's RC Club of S Dakota Fun Fly. Site: Modelport. John Donovan CD, 1409 W Thompson Dr Sioux Falls SD 57105 PH:605-338-5011. Sponsor: DONOVAN'S RC CLUB OF SD

SD
8/13/00 —Sioux Falls, SD (C) Sod Busters Climb & Glide. Site: Club Field. Dean Everetts CD, 103 S Corell Ave Sioux Falls SD 57104 PH:605-332-6524. Sponsor: SOD BUSTERS/SAM 53

TN
8/19/00 —Cookeville, TN (C-Restricted) Middle Tennessee Giant Scale Fly In. Site: Old Putnam Co Airport. Robert Sealy CD, 2530 Zeb Warren Rd Cookeville TN 38506 PH:931-526-4770. CD's e-mail qualityfiber@cookeville.com. Food and drinks available at site. Restrooms available on site. Sponsor: UPPER CUMBERLAND RC SOCIETY

TN
8/26/00 - 8/27/00 —Nashville, TN (C-Restricted) Cane Ridge Hawks Fly In. Site: Cane Ridge Park. Dick Tonan CD, 639 Knollwood Dr La Vergne TN 37086 PH:615-793-2204. 400x100' paved runway, sanitary facilities, food concession. Sponsor: CANE RIDGE HAWKS

TX
8/05/00 - 8/06/00 —Lubbock, TX (AA) High Plains Championship for 401, 402, 403, 404, 406(JSO). Site: Reese Center. R Michael Danchak CD, 9112 Salem Dr Lubbock TX 79424 PH:806-794-9474. Bring your pattern plane and fly at the former Reese AFB. Primitive camping, no hook ups. Entry fee $25. Sponsor: WINGS MINIATURE AIRCRAFT SOCIETY

TX
8/12/00 - 8/13/00 —Abilene, TX (C) Texas Shoot Out RC Combat. Site: Sea Bee Park. Jerry Farr CD, 872 Davis Drive Abilene TX 79605 PH:915-673-0156. Depending on number of entries may be a double elimination contest. Special awards, laid back fun, lot of prizes. See our booth at Southwest Aeromodelers Conference in Arlington May 18-19. Sponsor: ABILENE RC SOCIETY

TX
8/12/00 - 8/13/00 —Katy, TX (C) Fly In/Swap Meet. Site: Club Field. William Rhodes CD, 15919 Mesa Gardens Dr Houston TX 77095 PH:281-859-3554. Fly what you bring. Nice relaxing weekend flying at great facility with nice guys. Admission $10 per day which includes lunch. For directions to field call 281-859-3554 or e-mail brhodes@zenithtpa.com. Sponsor: SPACE CITY RC CLUB

TX
8/13/00 —Dallas, TX (A) Sailplane T3 Precision Duration for 444(JSO). Site: Eastfield College Campus. Jim Triutt CD, 1618 Mapleton Dr Dallas, TX 75228 PH:214-327-9117. Sponsor: SOARING LEAGUE OF NORTH TEXAS

TX
8/19/00 —San Antonio, TX (A) HOTSS Club Contest for 444(O). Site: Club Field. Gene Trevino CD, 9 Serena San Antonio, TX 78248 PH:210-479-7650. Sponsor: HEART OF TEXAS SOARING SOCIETY

TX
8/19/00 - 8/20/00 —Odessa, TX (C) Big Bird. Site: Club Field. Johnny Faye CD, 102 Emerald Forest Ct Odessa TX 79762 PH:915-366-0416. Sponsor: ODESSA PROPBUSTERS RC CLUB

TX
8/20/00 —Dallas, TX (A) Annual Hand Launch Classic for 441(JSO). Site: Eastfield College Campus. Tim Bennett CD, 138 Sandy Oak Ln Coppell TX 75019 PH:972-462-0784. Sponsor: SOARING LEAGUE OF NORTH TEXAS

TX
8/20/00 —Dallas, TX (C) Open Class B RC Combat. Site: Club Field. Jack Zimmanck CD, 9216 San Fernando Way Dallas TX 75218 PH:214-327-7501. Open class B radio control combat, scale combat planes welcome to compete. $15 entry fee. RCCA member points contribute to Nat. Champ standings. Hardhats required on flightline. E-mail jzimmanck@cs.com, for map www.ndrcc.com, for rules www.rccombat.com. Sponsor: NORTH DALLAS RADIO CONTROL CLUB

TX
8/20/00 —Moffat, TX (C) Temple Aero Modelers Annual Big Bird. Site: Club Field, Don Mondrik CD, 3006 Red Oak Dr Belton TX 76513-1029 PH:254-939-1242 e-mail mondrik@aol.com. Camping at field, no hook ups. Motels & hook ups close by. 300x50' paved runway with grass run offs. Free BBQ lunch for pilots. Visit our web page at http://pages.prodigy.net/bischulz/aero.html. Sponsor: TEMPLE AERO MODELERS

TX
8/26/00 - 8/27/00 —New Waverly, TX (AA) Barnstormers Pattern Contest for 401-406(JSO). Site: Club Field. Donald Ramsey CD, 655 Guilford Park Conroe TX 77302 PH:409-321-2784. Sponsor: TRI-COUNTY BARNSTORMERS

Contest Calendar

TX

8/26/00 - 8/27/00 —Amarillo, TX (AA) ARKS Fall Sailplane Meet for 441, 442, 444(JSO). Site: Club Field. Bill Irwin CD, Rt 8 Box 40-16 Amarillo TX 79118 PH:806-622-0789. Sponsor: AMARILLO RADIO KONTROL SOCIETY

VA

8/06/00 —Winchester, VA (C) Battle For Winchester #3. Site: Sulphur Springs Flying Site. Chris Shepherd CD, 106 South Down Circle Stephens City VA 22655 PH:540-868-0087. 1/12th scale RC combat. Sponsor: PLANE CRAZY RC

VA

8/12/00 - 8/13/00 —Lynchburg, VA (C) Fun Fly. Site: Club Field. Charles Smith CD, PO Box 423 Lynchburg, VA 24505 PH:804-528-1792. $2 landing fee, heli & plares welcome. Field closes at dark, camping within 4 miles. Flying Sat 9AM to 5PM, Sun 12PM to 5PM. Swap shop Sat 10AM to 2PM, Falwell Hangar. Sponsor: CENTRAL VIRGINIA RADIO CONTROL ASSN

VA

8/25/00 - 8/27/00 —Bealeton, VA (C-Restricted) Bealeton IMAA. Site: Flying Circus. Andrew Kane CD, 305 Natick Court Silver Spring, MD 20905 PH:301-785-3022. Annual fly in. 30 miles west of Fredericksburg, VA off Route 17. Motels in Warrenton or Fredericksburg. Full scale Barnstormers air show on Sunday 2PM. Sponsor: DISTRICT OF COLUMBIA RADIO CONTROL CLUB

Bealeton

IMAA Fly In

August 25,26,27, 2000

Flying Circus

Aerodrome.

Bealeton, Virginia

Last years event was great, this year will be even better.

Giant Scale at its best.

Andy Kane

Ask someone who was there last year and they'll tell you.

akane92802@aol.com

www.dc-rc.org

WA

8/12/00 —Lakewood, WA (A) Tailhook 2000 for 319, 320, 321(JSO). Site: Clover Park Tech School. Victor Lichtenberg CD, 5903 89th St Ct E Puyallup WA 98371 PH:520-584-5381. Sponsor: SEATTLE SKY RAIDERS

WA

8/12/00 - 8/13/00 —McKenna, WA (C) Hogs Hollers BBQ & Fun Fly. Site: Pfeiffer Field. David A Turner CD, 17311 6th Ave Crt E Spanaway WA 98387 PH:253-537-9613. Sponsor: MT RAINIER RC SOCIETY

WA

8/12/00 - 8/13/00 —McKenna, WA (A) Fun Scale for 520(JSO). Site: Pfeiffer Field. David A Turner CD, 17311 6th Ave Crt E Spanaway, WA 98387 PH:253-537-9613. Sponsor: MT RAINIER RC SOCIETY

WA

8/19/00 - 8/20/00 —Richland, WA (C) Biplane Fly In. Site: Off Road Vehicle Park. John Hanson CD, 2021 S Fruitland St Kennewick, WA 99337 PH:509-586-4843. Fourth annual biplane fly in - 2 days. $10 landing fee for one or both days. Optional touch & go contest. Entry fee $5 each day. Sponsor: TRI-CITY RADIO CONTROL MODELERS

WA

8/20/00 —Olympia, WA (C) Annual Float Fly In. Site: Black Lake. Bruce Gale CD, 811 9th Ave SW Puyallup, WA 98371 PH:253-845-0705. Sponsor: PUGET SOUND RC FLYERS

WA

8/26/00 - 8/27/00 —Yakima, WA (C-Restricted) Scale Aerotow Fly In. Site: Glessner Air Field. Gene Cope CD, 3203 1/2 Main St Union Gap, WA 98903 PH:509-457-9017. No contests, tasks, or duration time. Just a fun weekend of aerotowing scale sailplanes. Sponsor: MID COLUMBIA RC SOARERS

WA

8/26/00 - 8/27/00 —Coupeville, WA (C) Jets Over Whidbey. Site: OLF Navy Field. Roy Holt CD, 16508 45th St Ct E Sumner WA 98390 PH:253-891-2437. Two day jet fun fly on 5000' paved runway. Register 8AM, fly 9AM. Limited RV parking, no hook ups. 15 mph speed limit on Navy installation strictly enforced. Sponsor: WHIDBEY ISLAND RC SOCIETY

WI

8/05/00 —Madison, WI (C) Scale Rally Ken Kindschi Memorial. Site: Kettle Field. Craig Lovell CD, 5917 Meadowood Dr Madison WI 53711 PH:608-271-3581. All scale fly-in, food, raffle prizes, special events. $5 landing fee. Contest Don Weigt PH:608-238-9402, weigt@mailbag.com or Al Hitchcock PH:608-424-1611, alandh@execpc.com. Sponsor: M.A.R.C.S.

WI

8/05/00 —Grafton, WI (C) Charity Fun Fly. Site: Club Field. Steve Bothe CD, N27 W5230 Hamilton Rd Cedarburg, WI 53012 PH:262-377-7398. Great field, great fun, over $5000 in pilots raffle prizes, food, $3 landing fee, AMA card required. Corner of I-43 & Hwy 32. Sponsor: ASTRO WINGS OF WISCONSIN

ASTRO-WINGS

11th Annual

CHARITY FUN-FLY

Grafton, WI

Saturday, Aug. 5th

10am - 6pm

- *Great Pilots Prizes*
- *Great Food*
- *Great Flying Site*
- *AMA Sanctioned*

Located in Town of Grafton, WI; I-43, exit 93 (Hwy 32) north 1/8 mile. For More Info Call Roger at 414-375-0861 or Steve at 414-377-0574

WI

8/05/00 - 8/06/00 —Green Bay, WI (C) Corn Roast. Site: Club Field. Gary Doeren CD, 1169 Crooks Green Bay WI 54301 PH:920-435-2692. Sponsor: GREEN BAY AIRPLANE CLUB

WI

8/06/00 —Kansasville, WI (AA) Bong Eagles Annual Free Flight Contest for 101, 102, 103, 104, 120, 124, 142, 150, 160, 501, 503(JSO) and 140(J)(SO). Site: Bong Field. Tom Stevens CD, 549 Edison Ave Janesville, WI 53546 PH:608-752-7088. Special event: 1/2A Nostalgia ZEEK with .049 OK CUB. Yo'all come! Sunday Aug 6, 2000, 9AM to 4PM rain or shine. Sponsor: BONG EAGLES FF CLUB

WI

8/12/00 —Wausau, WI (C) Annual Fun Fly. Site: Club Field. Warren Pope CD, 640 South 3rd Ave Wausau WI 54401 PH:715-359-1725. Sponsor: WAUSAU RC SPORTSMEN

Wausau, WI

36th FUN FLY-IN

Sunnyvale Park HWY 29, 3 mi. west of Wausau, 72nd Ave.

Grass and 300' bktop runway

Sat. Aug 10, 2000

Registration at 9 AM

Fly 10 AM to 4 PM

Raffles & food

AMA sanctioned –

AMA membership required

For details and flyer:

Warren Pope CD 715-842-4371

or E-mail Bweller@GTE.net

WI

8/12/00 - 8/13/00 —Hilbert, WI (C) Big Bird Fun Fly. Site: Club Field. John Barkhahn CD, 300 9th St #3 Menasha WI 54952 PH:920-729-1174. Event restricted to giant aircraft (80 - 60 rule) or true 1/4 scale. Safety inspection required. Adequate muffler required. Aircraft over 50 lbs must have waiver. On site camping, free electric hook up. Saturday night steak fry with all the fixens. $10 dinner fee. $5 landing fee. Sponsor: CALUMET FLYERS INC

WI

8/13/00 —Brighton, WI (AA) Noonan Memorial Silent Gala for Cat III 120, 124, 150, 153, 154(JSO), 142(J)(SO). Site: Bong Recreational Area. A. J. Italiano CD, 1655 Revere Dr Brookfield WI 53045 PH:262-782-6256. Delta dart (AMA cub) mass launch (stock except rubber). FAC events - embryo, golden age scale (civil & military), racing plane mass launch, FAC old time rubber. Accuracy challenge. Sponsor: BONG EAGLES

WI

8/13/00 —Appleton, WI (A) Appleton Sailplane 2000 for 444(JSO). Site: Anderson Sod Farm. Lee Murray CD, 1300 Bay Ridge Rd Appleton WI 54915 PH:920-731-4848. An all-up, last down event will follow the contest. For 7 cell electric models. Sponsor: VALLEY AERO MODELERS

WI

8/19/00 —Madison, WI (A) 1.5 Meter Challenge for 441(O). Site: Sod Field. Larry Landucci CD, 3198 Shady Oak Ln Verona WI 53593-9734 PH:608-845-7961. 1.5 m span limit, launch restrictions, contact CD. Sponsor: MADISON AREA RC SOCIETY

WI

8/20/00 —Menomonee Falls, WI (C) Airfest 00. Site: Club Field. Paul Daniel CD, N53 W 26688 Arrowhead Dr Pewaukee WI 53072 PH:262-591-4302. Airfest 00 charity fun fly. Portion of proceeds go to Boy Scout Troop 110. Flying starts 10AM. Raffle, food, soda. Sponsor: FLYING ELECTRONS

WI

8/26/00 - 8/27/00 —Fond du Lac, WI (C-Restricted) IMAA Wings Over Fond Du Lac. Site: Club Field. Daniel Ziebell CD, 1103 West 7th St Oshkosh, WI 54901-5737 PH:920-233-8575. $5 landing fee, overnight primitive camping, food & beverage available on site. Motels available 2 miles from airfield. Field located on US 151 approx 2 miles south of US 41. Flying from 9AM to 4PM. Sponsor: FOND DU LAC AEROMODELER ASSN

SEPTEMBER

10TH ANNUAL MIDWEST REGIONAL FLOAT FLY

September 9 - 10, 2000

Brighton, Michigan

(See Aug. '00 R/C Modeler)

– Information –

www.geocities.com/~skymasters

email: cclong@tir.com

Skymasters R/C Club

810.254.0048

Non-Fly

JUNE

Miniature Aero Sportsters



3rd *Annual SWAP & SHOP*

June 10, 2000

Adams County Fairgrounds

Al Lesser Building

9755 Henderson Rd

Henderson, CO.

Admission $2.00 Tables $10.00

8:00 am to 9:00 am

Pre-registration is available

Miniature Aero Sportsters

P.O. Box 29634

Thornton, Colorado 80229

CO

6/10/00 —Henderson, CO (E) 3rd Annual Swap & Shop. Site: Adams County Fairgrounds, 9755 Henderson Rd. For info: C.W. Janssen, 9860 E 5th Ave Aurora CO 80010 PH:303-366-3077 or cjwings@msn.com. Contact Miniature Aero Sportsters. PO Box 29634 Thornton, CO 80229. Sponsor: MINIATURE AERO SPORTSTERS

JULY

FL

7/15/00 —Lakeland, FL (E) Central Florida RC Model Swap Meet. Site: Tigertown Hangar 2. For info: Jim Urick CD, 6007 Doe Circle East Lakeland, FL 33809 PH:863-858-4741 e-mail 1flyrc@earthlink.net. Will be held indoors, rain or shine. $15 table fee, $3 donation at the door, reservations requested. From I-4 exit SR 33, go south 1 1/2 miles. Look for Tiger Stadium on right. Doors open 7AM for vendors, 9AM for public. Sponsor: IMPERIAL RADIO CONTROL CLUB

Gilman Springs RC Flyers

2nd Annual Independence Day Happening

July 1, 2, 3

Flea Market
Food
Camping

Competition and Prizes

CONTACT

George Killeen
San Jacinto, California
909 654-0461

email: jg140@juno.com
jg140@prodigy.net

Imperial Radio Control Club

CENTRAL FLORIDA RC MODEL SWAP MEET

Saturday - July 15, 2000

Tigertown Hangar 2

Lakeland FL

Contact – Jim Urick

(863) 858-4741

E-Mail - FLYRC@earthlink.net

or Airsouth@gte.net

Indoors - Rain or Shine

AUGUST

VA

8/12/00 —Lynchburg, VA (E) 6th Annual Swap Shop. Site: Falwell Airport on Route 460 East of Lynchburg, VA. For info: Tom Hodges PH:804-237-4141. 50 tables, door prizes, concessions. 9AM to 1PM. Admission $5, 12 and under free. Tables $10 each. Registration deadline August 1, 2000. Sponsor: CENTRAL VIRGINIA RC ASSOCIATION INC

AMA

SINCE 1936

Full-Size Plans

891 Perky Plus: **$7.50**
1/2A RC sport by Robelen spans 33 1/2 inches

892 Eindecker: **$7.50**
1/2A CL by Sarpolus spans 29 inches

No. 136	**Fieseler Storch:** RC Scale model for .23-.45, 5-channel, has both slots and flap	C
No. 262	**Crashmaster:** CL crash proof trainer. Two sizes—.15-.30 and .35/.40 power	A
No. 447	**1/2A Miss America:** RC Old Timer 1/2A Texaco model for .049 glow. 2 channels.	C
No. 581	**Gee Bee Model Y:** RC Golden Age Racer. Spans 72-in. (1/5 scale) for .60 power. (3 plan sheets)	E
No. 714	**Mud Duck:** RC user-friendly Sport flier for relaxed slow flight. Excels at low, slow maneuvers. 25-.33 power. Spans 60 in. (2 plan sheets)	D
No. 720	**Minuteman:** FF Frank Zaic's popular all-balsa-covered rubber-powered model taken from *Popular Science*, June, 1941. Spans 20 in.	A
No. 733	**1941 Taylorcraft:** RC quarter-scale design captures the unique flying qualities of the full-scale Taylorcraft. 108-inch span. (2 plan sheets)	E
No. 739	**Jouster:** RC Sailplane has looks and performance. 122-inch span, includes full construction text (3 plan sheets)	E
No. 815	**Taylor Cub:** RC Sport Scale for three channels, spans 56 inches	C
No. 818	**Nibble 300:** FF 1/2A record holder by Norm Poli spans 55 1/2 inches	B
No. 822	**Stephens Akro:** RC Laser predecessor by Sarpolus for 3.2 power spans 90 inches	E
No. 826	**Piper Pawnee Brave:** FF Rubber Scale by Earl Stahl spans 30 1/2 inches	A
No. 834	**Goblin:** Electric sport model for geared Speed 400 motors spans 46 1/4 inches	C
No. 836	**.09 Slow Motion:** Third in flying-wing series by Bill Evans spans 48 1/2 inches	B
No. 840	**PT-3:** RC Scale model by Frank Baker spans 50 inches	C
No. 842	**Ryan Sport Trainer:** RC Scale by Phillip Kent uses Max 40 Surpass, spans 60 inches	E
No. 846	**Professional Cut:** Pattern-style model by Sarpolus for Sachs 3.2 engines spans 94 inches (2 sheets)	E
No. 847	**Son of Goat:** RC conversion of CL design by Clough spans 36 inches	C
No. 848	**Spitfire:** CL Stunt by Urbowski/Adamusko for ST .60 power spans 62 inches (2 sheets)	E
No. 849	**Super Bug:** Mathews' adaptation of classic Walt Good design for .25 - .35 power spans 75 inches	C
No. 850	**Osprey:** Winter/Hunton intermediate RC model spans 63 inches	D
No. 851	**Eaglerock:** CL Scale by Frank Beatty spans 49 inches	C
No. 852	**Javelin:** RC slope/sport glider by Allen spans 72 inches	A
No. 853	**Quantum 20:** Nats-winning FF Indoor HLG by Sutlees spans 20 inches	C
No. 854	**Arrowplane:** RC Competition Fun-Fly by Larsen for .09 - .15 power spans 36 inches	B
No. 855	**Lightnin' Bolt:** CL Sport model by Netzeband for .049 power 36 inches	E
No. 856	**Ascender:** RC Sport Canard for .40 power by Winter/Hunton spans 50.25 inches	B
No. 857	**Lil' Chugger:** FF 1/2A-F1J by Dunham spans 53 inches	C
No. 858	**Back to Basics:** Two-Meter sailplane by Kincaid spans 77 3/4 inches	B
No. 860	**Slow Motion Tradition:** RC Simitar for .40 power spans 64 inches	B
No. 862	**P-51 Mustang:** RC Speed 400 Electric by Kerry spans 32 inches	B
No. 863	**Jackpot:** Winter/Hunton collaboration for .45 power spans 68 inches	E
No. 865	**Faker D-8:** RC Standoff Scale by Clough spans 64 inches	E
No. 867	**Cheap Thrill:** Stunt model by Thomerson spans 36 inches	E
No. 868	**Autoplane:** Twin Speed 400 Electric Scale by Mikulasko spans 62 inches	D
No. 869	**Rear Wind:** RC Pusher delta by Cimmino for .40 power spans 60 inches	B
No. 870	**T-28:** CL 1/2A sport model by Sarpolus spans 29 1/4 inches	E
No. 871	**Duster:** RC Sport model by Winter/Hunton for .40 two-strokes spans 71 1/2 inches	A
No. 872	**Cloud Kitten:** Foam-wing FF sport model by Fred Reese spans 35 inches	B
No. 873	**Little Tiger:** CL 1/2A Profile Proto by Hull is Nats winner, spans 55 1/2 inches	B
No. 874	**Electrolith:** RC Electric sailplane by Cashion for Speed 400s, spans 57 inches	C
No. 875	**Pipe Dream:** RC Electric flying wing by Winter/Hunton spans 41 1/2 inches	C
No. 876	**Barecat:** CL 1/2A Stunt by Baron spans 40 inches	C
No. 877	**Merry Widow:** 1/2A RC by Clough spans 44 inches	D
No. 878	**Longster Wimpy:** RC Scale Electric by Woodward spans 59 inches	E
No. 879	**P-40K:** CL Stunt by Johnston spans 59 inches (2 sheets)	E
No. 880	**Druine Turbulent:** Mathew version of French home-built spans 72 inches (2sheets)	C
No. 881	**Howard Pete:** CL Scale by Beatty for .32 power spans 40 1/2 inches (2 sheets)	B
No. 882	**Corsair:** Speed 400 Electric Scale by Ryan spans 30.4 inches	B
No. 883	**Cumulus: 1/2A Texaco RC by Cashion spans 48 inches**	C
No. 884	**Bandit:** FF F1J by Lynch spans 73 inches	F
No. 885	**Fairchild: 1/2A Texaco RC by Clough spans 44 inches**	D
No. 886	**Bearcat:** CL Stunt model by Johnston spans 58 inches (2 sheets)	E
No. 887	**Drip Dry:** Record-setting FF Mulvihill Rise-Off-Water model by Smith spans 50 inches	B
No. 888	**Foldar Universal:** RC Electric Sport Scale by Humphreys spans 72 inches (2 sheets)	B
No. 889	**Air Bear:** RC sailplane for beginners spans 60 inches	B
No. 890	**FrankenFoamy:** RC mini-Electric by Blott spans 36 inches	B

Full-size plan list available. A complete listing of all plans previously published in this magazine through no. 859 may be obtained free of charge by writing (enclose 78c stamped, pre-addressed #10 business-size letter envelope) *Model Aviation*, 5151 E. Memorial Dr., Muncie IN 47302.

Fill in the blanks below with the number(s) of the plan(s) you wish to order.
Please do not include requests or payment for some other service with your plans order. To order by phone, call (765) 287-1256, ext. #505 (use ext. #212 for questions about a particular plan). To order by fax, complete this form and send to (765) 289-4248.

Domestic customers please include $3.20 shipping and handling. Add $3.00 to have your plans mailed in a tube. Please no COD orders
Make check or money order (payable in US funds drawn on a US bank) to AMA, 5151 East Memorial Dr., Muncie IN 47302. Please allow three weeks for delivery.

Price Key			
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C = $11.25	Plan# _____	Outside US S/H	$ _____
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❑ Check ❑ Money Order ❑ MasterCard/Visa AMA #: _____

CARD NO. _____ EXP. DATE _____

NAME _____ PH# _____

STREET _____

CITY _____ STATE ____ ZIP _____

(Customers outside the continental US call for shipping costs.)

On the Fly

Continued from page 6

Custom Engraving

The AMA Merchandising Department is now performing its engraving on-site.

Trained specialists can produce top-quality engraved plaques that will meet your needs, at reasonable prices.

Additional design options will be available for a more-personalized look. Further details will be included in upcoming issues of *Model Aviation*. MA

—Merchandising Department

Letters

Continued from page 7

provide a full $5 credit against an order for our products of $30 or more.

Frank Campbell
Owner
Scale Skins® Model Company
210 Lorna Sq. #132
Hoover AL 35216

Outstanding Service

Too many times, we neglect to acknowledge individuals or businesses for outstanding performance or service.

I would like to bring to your attention the K-N-K Hobby Shop of Celina, Ohio, owned by Matt and April Gunden.

I had my first dealings with Matt at a swap meet in Marion IN, where I bought a used engine off his table. Normally, when you buy something at a swap meet, it is "buyer beware."

When I returned home to examine the engine, I discovered it had been in a bad wreck; the crank was bent and the ignition module was broken. I called Matt and he said I could bring the engine back to him at the Celina show for a refund, or he would get me a new engine at slightly over his cost.

When the date of the show came near, I called Matt and he said that his supplier had not received a new shipment of engines, and he would have my money at the show. He also said that when he got his shipment in, he would call me and I could still have the engine at the price he gave me.

True to his word, he had my money at the show and I gave him back the engine.

I would say that this is an example of outstanding service to a fellow modeler. I could have been stuck with a useless engine.

This is one hobby shop I would certainly go to if I lived in the area, as he does a great service to his customers.

James R. Marriott
Anderson, Indiana

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Toll Free: (888) 829-4060 E-Mail: mark@airbornemedia.com

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View from HQ

Joyce Hager Executive Director

A win-win relationship is forged when the industry can reward clubs and shops for their support of model products.

HERE ARE some important dates to mark on your calendar:

May 31-June 4: Johnson City TN, AMA Indoor Nationals
June 9-11: Muncie IN, Grand Event/Homecoming
July 7-August 3: Muncie IN, AMA Outdoor Nationals
August 6-12: San Diego CA, Electric World Championships

For more information, check out our Web site at www.modelaircraft.org.

Attention, Chartered Clubs and Hobby Shops: The Radio Control Hobby Trade Association (RCHTA) board of directors is proud to announce the association's new Radio Control Public Demo Program.

The R/C Public Demo Program joins the successful Media Awards Program as another grass roots promotion project. It is designed to increase public awareness and award money to hobby shops and club members when they hold public RC demonstrations for non-hobbyists.

As with the Media Awards Program, the R/C Public Demo Program is the multiplier effect as a more-productive way to utilize our resources.

RCHTA continues to invent projects that encourage RC enthusiasts to introduce the fun and excitement of Radio Control products to those not already familiar with them. Modelers are the perfect conduits for transferring contagious enthusiasm.

A win-win relationship is forged when the industry can reward clubs and shops for their support of model products.

Here is how the new R/C Public Demo Program works:

Hobby shops and clubs that demonstrate RC activity away from their normal sites, such as at flying fields, boat ponds, or racetracks could receive up to $500.

The amount of the award depends on the size of the audience. Demonstrating at a school or making a presentation to a Rotary Club would qualify for $100. A mall show presentation might earn $200, and a multiday demonstration at a major full-scale auto show or county fair would qualify for $500.

RCHTA's Media Awards Program, now in its fourth year, is a separate promotion that awards clubs and hobby shops with cash when they succeed in gaining media coverage for an event that they have sponsored.



There has been some excellent network television, newspaper, and radio coverage because of these club endeavors.

The Media Awards Program and the R/C Public Demo Program share a $100,000 budget; participation in either program or in both programs will cap at $500 per year per club or shop.

For members interested in finding out more about the Media Awards Program and the R/C Public Demo Program, additional information and application forms can be found on AMA's Web site at www.modelaircraft.org or RCHTA's Web site at www.rchta.org or by calling (847) 526-1222.

Your *Model Aviation* Mailing Label: When corresponding with AMA Headquarters regarding your membership or magazine subscription, please refer to your label for important information.

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Write: Attn: Membership Department
5151 E. Memorial Dr.
Muncie IN 47302
Fax: (765) 741-0057
E-Mail: cpierce@modelaircraft.org

Please allow four to six weeks for adjustments to your magazine mailing label.

If you do not receive your magazine on a monthly basis, please be sure to contact us immediately to resolve the problem. We value you as a reader, and we want to make sure you get the most out of your membership benefits.

Groundbreaking, March 31, 2000: For once, the weather in Muncie decided to cooperate. The sun was shining and the temperature was perfect, although you can tell by the picture that the ground was a little hard.

In conjunction with the groundbreaking ceremony, AMA hosted an event called "Chamber After Hours," which consists of representatives of businesses involved with the Chamber of Commerce. It is held at member companies and institutions throughout Muncie.

Attendees use this time to socialize, exchange business cards, and do some networking. More than 200 participants helped us celebrate the groundbreaking.

Within a week of groundbreaking, the Brandt Construction trailer was delivered. The crew has put in a temporary road on the other side of the pond, so that heavy-duty equipment and traffic from the construction project will not interfere with the traffic on our main road.

Unfortunately, the site will not look as pleasant as in past years, but this will only be temporary.

Brandt Construction also took on the project of the first permanent bathroom facility; it should be completed before the Grand Event in June.

The facility will be located near Stage Center (a central area of the site), and will contain three bathroom stalls, one handicap shower/restroom for men, and one for women. It will be open to contestants and their guests during the contest season. *MA*



Those taking part in the ceremony included AMA president Dave Brown, Executive Director Joyce Hager, and District IV Vice President and Building Committee chairman Chuck Foreman.

Happy flying,

Joyce

Joyce Hager
Executive Director
jhager@modelaircraft.org

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Dominate the Sky



THE DOMINATOR 1500

Designed by John Helgesen
Laser Cut All Wood Kit with Foam Wing
Cat. No. 20241

Specifications

Overall Fuselage Length:	68"
Wing Span:	84"
Wing Area:	1,500 sq. in.
Rec. Engine Size:	3.2 - 4.2 2-Stroke
Radio Channels:	4
Flying Weight:	16 - 20lbs.

THE DOMINATOR 200

Designed by John Helgesen
Laser Cut All Wood Kit with Built Up Wing
Cat. No. 99239

- **Can be converted to electric**

Specifications

Overall Fuselage Length:	24 3/4"
Wing Span:	32"
Wing Area:	207 sq. in.
Rec. Engine Size:	.049 - .061 2-Stroke
Radio Channels:	4
	2 - 4 micro servos

THE DOMINATOR 500

Designed by John Helgesen
Not an ARF
Laser Cut All Wood Kit with Foam Wing
Cat. No. 99238

Dominator

Specifications

Overall Fuselage Length:	38"
Wing Span:	52"
Wing Area:	500 sq. in.
Rec. Engine Size:	.25 - .46 2-Stroke
Radio Channels:	4
Flying Weight:	3 1/2 - 4 lbs.

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