CENTRAL INDIANA AEROMODELLERS

INFORMER

FREE FLIGHT NEWS OF THE MIDWEST

** The Weather **
A smattering of shattering thunderstorms!
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Issue # 2/01 March/April Price $7.50/yr.

Setting Up a New Seelig Timer for AMA CatIII Gas Flying. - by Dick Covalt

The following is part #3 of a series of individual steps that can be utilized to improve the function and reliability of the newer "star gear & rocker" type Seelig 4-function AMA Gas timers. Most also apply to the older style Seelig "fan type" gas power timers. Not only the "how", but the "why" is explained. Certainly not everyone will agree with the modifications, but the individual craftsman is left to decide if the described changes fit his particular need and method of building and flying competition free flight.



Adding a 3rd Post to Intermediate Bearing Plate

Why: The intermediate bearing plate is cantilevered from the two main support posts at the "start bale" end of the timer. This is a situation that is vulnerable to vibration. If vibration should loosen the support post screws the plate can move up-and-down allowing one of more gears to "jump" out of their bearing. Typically, the gear farthest from the support posts is the one that comes out. When this happens the timer instantaneously unwinds, theoretically causing all functions to be tripped. If you're lucky and don't fold the wing the DT will bring the plane down safely, but in the worst case scenario this will "re-kit" your aircraft.

But you say, I loctite the screws and make sure they are tight. And indeed, that is absolutely necessary. Unfortunately, there is another phenomenon at work that can cause exactly the same failure without the support posts screws becoming loose. It is called mechanical resonance. Mechanical resonance is defined as an abnormally large response to an external stimulus. In the case of the intermediate bearing plate, an abnormally large up-and-down movement caused by engine vibration of a resonant frequency (engine revolutions per second being the frequency.)

(cont'd p. 4)

Let's start off this page with a 'Super Shake' to new Agent **Ray Hayes**, from Ft. Wayne, IN and **Terry Thorkildsen** of Thousand Oaks, CA
I realize I've been a bit off stride in acknowledging New Agents, recently. If you feel that you've been slighted, *PLEASE* let me know, and I'll right the omission! Thanx.....

Agent **Dick Covalt's** thoughts on the National Cup competitions has sparked a ton of response – pro and con, some of which is unprintable!! But the following is a note I received from CA Agent **Terry Thorkildsen**:

"As a CD I just want to comment in response to Dick Covalt's article, we *do* break out all our Nostalgia events separately at our San Valeers Nostalgia Annual, but we just don't have the participation at our regular SV Annual to do the same."

"We feel it is better to have a combined event with 5 or 6 competitors, rather than separate events with 1 to 3 flyers on which our club would take a major loss, considering the merchandise that we award."

"Besides, who wants to fly with no competition! To me, there are too many events to fly at a lot of contests. So we end up flying what we enjoy the most."

Notice!!!
Concerning the CIA OT/NOS Contest (Jun 2-3), *be advised that the 1/2A NosGas Jr. event has been added to the contest roster!*
The 4 days of flying (Jun 2-5) now includes ***all*** National Cup events! ***Skoal!!***

And from CD **Bob Mattes** comes this plea: For the Jun 4-5 CIA add-on Contest at Muncie he's requesting that all participants in this contest volunteer to help at the scoring bench for a total of 1 hour, over the 2-day period. Ask about this help-out as you check in to the contest. All help will be greatly appreciated!

It's always great to get a "thank you" note!! From artist **Beth Krush** comes this tasty.....

"A delightful surprise came in the mail last week – to be rewarded for something I love to do!" (We gave Beth a Service Award for her Informer artwork at the last CIA Banquet....) "I plan to make a wall of diplomas, awards and certificates – and the pretty plaque will be a real addition!! But until I get my wall done, it will have to rest on the piano."

".....we have been very busy teaching, painting and drawing. Joe (a very good indoor flyer – ed.) has been mentoring kids in model building for the Science Olympiads. And he's been busy flying with his club at the Hindenburg Hangar at Lakehurst, and at Memorial Hall in Fairmont Park – the last building left from the 1876 Exposition!" And Beth sent us yet more sketches to use!!! Thanx a million!

I'd like to pass on a memo form Lee Campbell to Bonnie Jenkins (of Memphis TN).

"I am writing concerning the legality of the 'Modified 24 CM prop as marketed by the Gizmo Geezer. This prop is altered, so as to increase the pitch."

"Although this prop is commercially available, it is a modification of an already manufactured prop. As I interpret the rules, this would make the prop not legal for AMA P-30 competition."

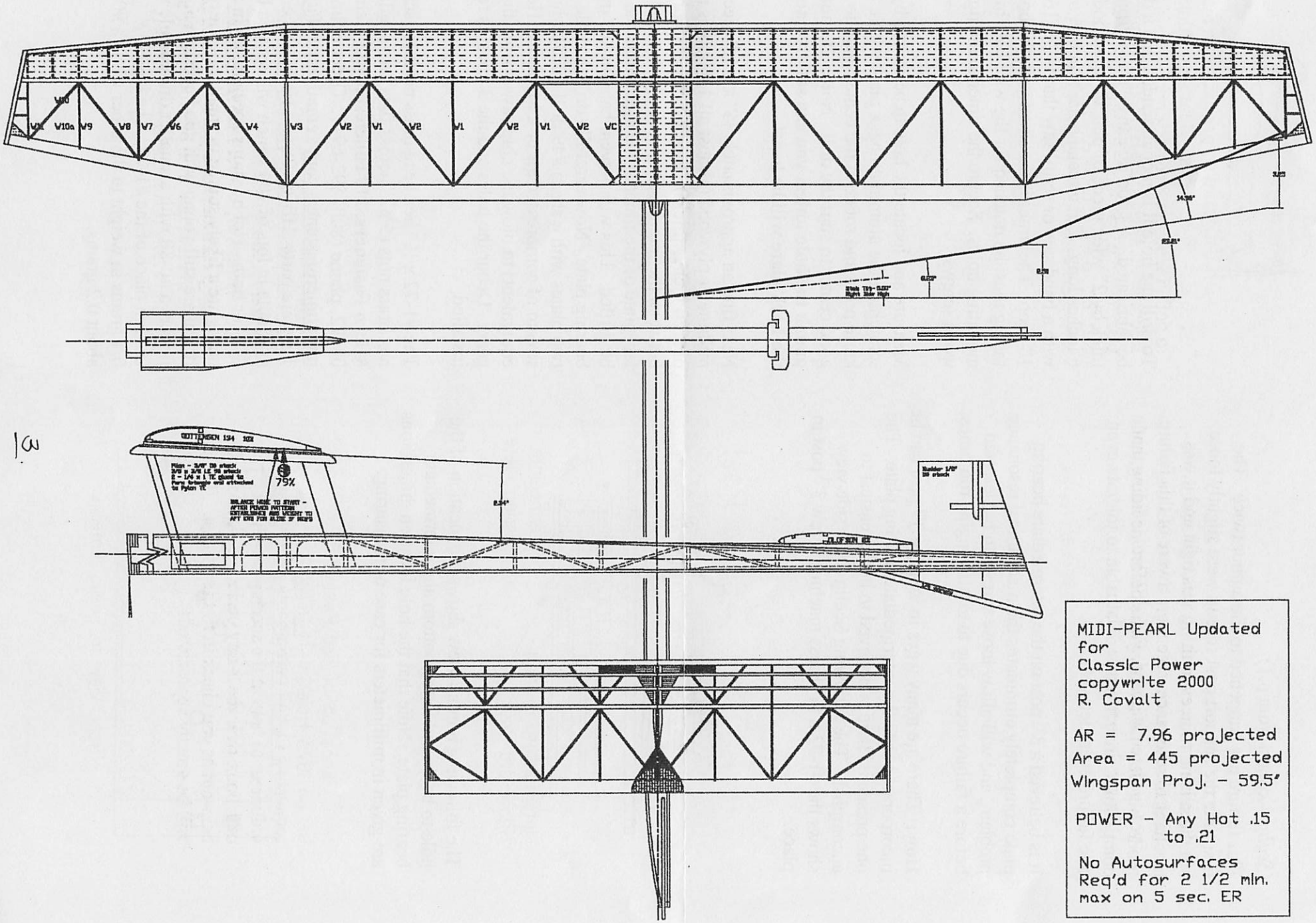
ED. - Seems to me that any new prop is a 'modification' of an existing prop. What do you P-30 flyers think??

I fly the stock Peck prop on my P-30s. I also have modified the Peck prop to increase the pitch – just to see what gains could be made. The resultant trim changes that had to be made to the model to achieve stable powered flight were not worth the alterations – on a given model; the increased pitch making the model pretty squirrely under hi-power.

However, I think I could be better off with a redesigned model using the increased pitch.

Such is the price of progress. It's about time for a new commercial P-30 prop!!!

What do you guys think?? - Mo



MIDI-PEARL Updated
for
Classic Power
copywrite 2000
R. Covalt

AR = 7.96 projected
Area = 445 projected
Wingspan Proj. - 59.5"

POWER - Any Hot .15
to .21

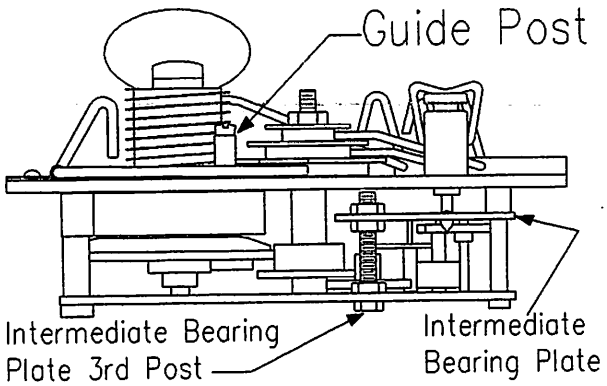
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max on 5 sec. ER

(*Seelig* – cont'd from p.1)

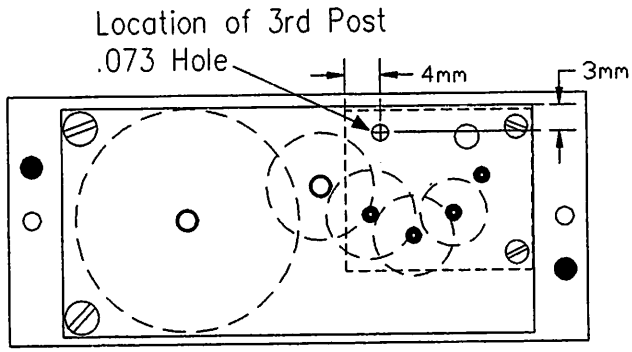
This failure has happened to the author twice. The first time the support post screws were slightly loose, but the second time everything was tight and it was mechanical resonance. We were aware of this failure mode, but flew for twenty years before deciding that a competition aircraft was too valuable to tolerate even one failure every ten years.

It is believed a 3rd post on the intermediate bearing plate completely eliminates the mechanical resonance problem, and will allow loose screws to be detected before a failure occurs due to erratic engine run times.

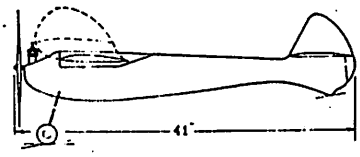
How: There are many ways in which a 3rd post can be incorporated onto the intermediate bearing plate. The one presented here is believed to be the easiest to accomplish. The following Seelig timer side view shows the #1-72 x ½" brass machine screw 3rd post in place.



The following bottom view shows the location of the hole to be drilled in the bottom and intermediate bearing plate. Note that the hole location dimensions are given in millimeters for ease of measuring.



Rear View of Seelig Timer



To drill the hole it is recommended that a drilling jig be fabricated. A good jig can be made from a ¾" thick by 2" wide piece of pine or basswood that is 5 or 6 inches long. Cut a rectangular notch in one side with a band saw or scroll saw that is 2-3/16" long by 1" deep. The timer is mounted with the bottom up so the jig must be notched for the wire bale hinges at the mounting holes. Secure the timer to the jig with small wood screws.

Measure and locate the hole to be drilled by scratching the aluminum back plate with a pin. Use a knife point and rotate at the center mark to provide a good center to start the drill. **Note: Do not center punch the hole unless you can solidly back it up or the back plate will be bent!**

Next find an approximately ½" x 1 ½" piece of 3 millimeter plywood (almost all 1/8" ply is really 3mm or .120 inches thick.) Slide this piece of plywood between the intermediate bearing plate and the faceplate of the timer at the area where the hole will be drilled. This will prevent bending the intermediate bearing plate. Now carefully drill the hole through the two plates with a sharp #49 drill (.073) while using a stream of compressed air or a Monocoat Heat Gun (or equivalent) to blow the chips away from the timer gears. Debur the holes and the 3rd post is ready to be installed.

The #1-72 x ½" hex head brass machine screw and hex brass nuts (5/32" across flats) are available from **Micro Fasteners**, 110 Hillcrest Road, Flemington, NJ 08822, phone (800) 892-6917. Order online http://microfasteners.com ; email: microf@blast.net. They are part# HBB0108 and HNB0172 and are available in lots of 100 which will set you back about $10 for both. Hobby shops specializing in model trains are a likely source in smaller quantity packages. If you are still young with good eyesight and nimble fingers a #0-80 with a smaller drilled hole may be used in place of the #1-72. The #1-72 3rd post adds 0.4 grams in weight to the timer while a #0-80 adds about 0.2 grams.



Install the bolt and nuts as shown on the Seelig side view drawing. Use Loctite 242 (the blue stuff) at the back plate nut, but wait until later for the nuts on either side of the intermediate bearing plate. Leave the nut on either side of the intermediate plate loose by about 1/64". Wind the timer, turn it on, and with your finger or a small screwdriver move the intermediate bearing plate up and down at the 3rd post between the nuts. Take notice if the timer slows down or speeds up. If a change is noticed use the nuts to adjust the plate to the position where the timer runs the smoothest and fastest. Normally the intermediate bearing plate should be parallel, or nearly parallel to the back plate. As the last task loosen one of the nuts holding the intermediate bearing plate, apply Loctite 242 and retighten. Then do the same with the other nut. The #1-72 machine screw and nuts can be tightened quite snugly without stripping, which they need to be, to prevent them from ever coming loose due to vibration.

Future articles for the CIA INFORMER will cover the following items:

- Drilling and bushing mounting holes; installing winding pin, and making a winding tool
- Removing "rocker" weights to speed up timer and adjusting the time settings
- Cleaning and lubricating, and easing timer start action



The Other Side of the Fence

Dick Covalt's open letter in the January-February *Informer*, decrying the fact that all AMA-sanctioned contests at Muncie are not set up for the express benefit of National Cup competitors, deserves another look.

When I decided to aim my flying toward America's Cup F1J a few years ago, I knew from the get-go that it would involve a significant amount of travel; the rules are set up so as to reduce "home-field advantage." There were justifiable fears that those who flew regularly at Lost Hills, for instance, would be able to rack up all kinds of points without ever leaving their flying backyard.

Now I see that, despite the success of the America's Cup; despite the fact that we are seeing more West Coast fliers at Muncie each year; and despite the fact that the National Cup idea was derived from the America's Cup; we are supposed to junk all that and there *is* supposed to be a home-field advantage after all:

"For a Free Flight contest site to be a competitive 'home field' for National Cup competition *all the events in a National Cup category need to be offered six times,*" wrote Covalt.

Really?

How many sites are host to as many as six significant (Class AA or higher) contests is a season? And the rules I read indicate that a flier may only count *three* scores per event from a given site.

I suspect the rationale behind this is because fliers in Florida, for instance, may have had the requisite number of opportunities to rack up points. And certainly those who live in southern California and Arizona probably have more potential chances to earn points.

So what?

If you look at the results of most America's Cup contests, you will see representation from various US states—especially toward the end of each season, if the Cup race is in question. The King Orange has settled many a Cup chase during the last few years, and many times it involved fliers from California, Texas, New York, and other disparate locations.

To say you want to win the Cup, but can or will only do so if you don't have to leave home, flies in the face of the concept of a "National" champion.

As to "why is it that America's Cup events are never combined," I suggest that it would be tough for an F1A flier to compete against someone flying F1C in non-thermal conditions; and in the mini events, F1J holds at least as great a performance advantage against F1Gs and F1Hs. Yet I have seen and flown in "FAI combined" events, which merely gave FAI fliers an "extra" chance to fly their models in contest conditions—and this was generally appreciated by the fliers.

And are we really at a point where we can be so arrogant as to boycott events that aren't to our liking? Are there so many Free Flight contests that " ... National Cup Free Flight gas event competitors should not support contests that combine events ... "?

Many years ago, an ill-advised attempt was made to force all AMA Gas models to conform to FAI specifications for wing loading. Some groups rebelled, and the rules were rescinded shortly thereafter; but the ill will remains to this day. Do we really want a replay of that?

It's interesting that after only one year of National Cup competition, the claim was made that "the paradigm has changed," but if you look at who won the National Cup in 2000, you'll find that well-known, good fliers took home the hardware. That's a paradigm shift?

(But when I noted there was not a great influx of new blood generated by the National Cup—a main reason for its creation—I was told, "oh, it's only the first year." So we have a paradigm shift, but with the same people?)

As with most things aimed at flogging the already-dead carcass of Free Flight activity, the National Cup will be yet another trophy hunt for the same group of competitors. Even with the unqualified success of the America's Cup, a wholesale influx of competitors has not taken place in the FAI events. The competitive bar may have been raised, and there has been more sustained interest in FAI events (rather than the pendulum swing of a two-year Team Selection process), but I submit that the ability to buy competitive models has had more to do with increased participation than the AmCup format.

And oh, by the way: Why is there a National Cup for Nostalgia? It was agreed from Nostalgia's inception that there would be no records kept, for this was to be a more-relaxed competition than AMA or FAI events. So now we have a points chase across the land for this "relaxed" category?

The concerns of those who are running the FFAMS contest are entirely justified. They have chosen to put on the type of contest they wish, and have done so for many years. Rather than threatening a boycott of an event that isn't set up just the way you want it, fly in this event for practice, and go somewhere else to get your precious points.

I stopped having the Excellent Adventure contests of the early 1990s because of criticism by one well-known flier about the quality of awards we gave out. Yet the contest was created specifically to give us all an extra chance to fly—to fill a void in the contest schedule. Entry fee was minimal, and so were the awards (plaques); *but the idea was to get out flying and competing, and have a good time.*

I can certainly see how "the Dayton bunch" feels unappreciated. *"If this isn't set up just for me, I'm gonna take my models and go home."*

Yeah, well, on second thought, maybe you should.

Jim Haught

ANALYSIS OF 2001 FREE FLIGHT CONTEST NATIONAL CUP SUPPORT

This analysis does not measure the "competition " nor the "quality" of a contest. It is not a measure of how many events are offered.
It simply quantifies "missed opportunities" for support of the National Cup program. A score of 100% indicates there are no missed opportunities.

CONTEST		*******AMA GAS********					***GLIDER****		********NOSTALGIA GAS*********						******RUBBER******			**********JUNIOR NC**********					NC Support Score-%
		1/2A	A	B	C	D	OHLG	OCG	1/4A	1/2A-E	1/2 A	A	B	C	Moff.	Mulv.	P-30	OCG	OHLG	1/2A Gas	1/2A Nos	P-30	
IN-FFMAS - May 12,13	2001	X	X	C	C	C	X	X	C	X	X	X	C	C	0	0	X	C	C	C	C	C	57
NY-Skyscrapers - 5/19,20	2001	X	X	X	X	0	X	X	0	0	X	X	X	X	0	X	X	X	X	C	C	X	100
IN-CIA Nos & OT - Jun 2,3	2001	0	0	0	0	0	0	0	X	X	X	X	X	X	0	0	0	0	0	0	X	0	100
TX-Tri-City Annual - 6/2,3	2001	X	X	X	X	0	0	X	0	0	X	X	0	0	0	0	X	C	0	C	C	C	100
IN-CIA NC Challenge - 6/4,5	2001	X	X	X	X	X	X	X	0	0	0	0	0	0	X	X	X	X	X	X	0	X	100
FL-Fiesta/5 Flags - 6/16,17	2001	X	X	X	X	0	X	X	0	0	X	X	0	X	X	X	X	C	X	X	C	X	100
IN-51st Inter-City - 6/ 23,24	2001	X	C	C	C	0	X	X	0	0	X	C	C	C	X	X	X	X	X	C	C	X	63
IN-NOFFA - Jun 30, Jul 1	2001	X	0	0	X	0	X	X	C	0	X	X	X	0	X	0	X	X	X	X	C	X	93
IN-FF Nats Jul 29 - Aug 2	2001	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	C	X	100
IN-Aeronuts - Aug 25, 26	2001	C	C	C	C	0	X	X	0	0	X	X	X	0	X	X	X	X	C	C	C	X	71
IN-COFFC - Sep 2, 3	2001	X	X	X	0	0	X	X	X	0	X	X	X	0	X	X	X	X	X	X	X	X	100
IN-CIA 28th An'l - 9 /28-30	2001	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	100
IN-Mid America - 9/23, 24	2000	X	X	X	C	C	X	X	0	0	X	C	C	C	X	X	X	C	C	C	C	C	64
FL-King Orange- 12/29 - 31	2000	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	C	C	X	100

X = NC Event Scheduled
0 = NC Event Not Scheduled
C = NC Event Combined with another Event or other wise not NC eligible

NC SUPPORT SCORE in % = (SCHEDULED NC Events) divided by (SCHEDULED NC Events plus NC Events that are shown as "C" except for Junior events)
(Then Multiply the above number by 100)

ie: NOFFA {13 / (13 + 1)} x 100 = 93

NC Contest Support.xls 3/25/2001 dc

NATIONAL CUP CHALLENGE FF CONTEST

AMA & National Cup Sanctioned Class A Contest
A CIA Fly 'till You Drop Event

Jun 4 (Mon) & Jun 5 (Tues), 2001
8 to 5 Mon, 8 to 4 Tues EST

International Aeromodeling Center
Muncie, Indiana

Featuring the Following National Cup Sanctioned Events:

AMA Gas	Rubber	Glider
1/2A J & S/O	Moffitt	OHLG J & S/O
A	Mulvihill	OCG J & S/O
B	P-30 J & S/O	
C		
D	This is a Category III Contest	

All models will be processed before flying

Entry Fee - $1.00 per event flown

National Cup point winnings will be posted immediately after contest

Recognition certificates indicating point winnings will be mailed to all contestants that win National Cup points

Fly any event either day, but must start and finish on the same day

CD: Bob Mattes, 190 Hunters Point Drive, St. Charles, MO 63303
Phone: (636) 441-1740 e-mail: rmattes@wans.net

Dayton Sector Skirmish

Sponsored by

Mc Cook Field Squadron F.A.C.



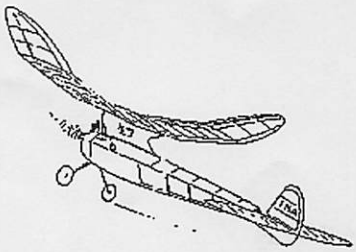
Events

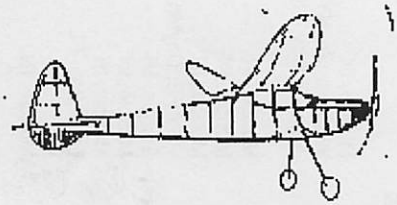
1. F.A.C. Scale
2. Peanut Scale
3. Embryo Endurance
4. Watson Unlimited Challenge
5. Electric O.T.
6. Power Scale
7. Jimmie Allen
8. Dime Scale
9. No-Cal
10. O.T. Rubber
11. Catapult Jet
12. WW1 Dogfight
13. WW2 Combat
14. And continuing for the second straight year, ***Electric No-Cal***

Located at Wright Field (Wright-Patterson A.F.B.)
Dayton Ohio
June 16, 2001

Entry fee $10.00 for one or all events. Juniors free. A.M.A. license required. Contestants please register with the C.D. by 1 June so you can gain admittance to the field.

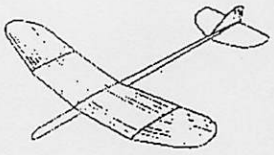
Frank Scott
6633 Lefevre Rd
Casstown Ohio
45312
Phone 937-335-3057
E-mail Dragoon163@yahoo.com

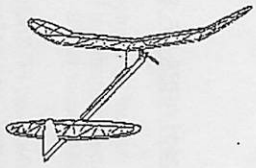




Northern Ohio Free Flight Association

Summer Free Flight Contest





AMA National Flying Site
Muncie, Indiana

June 30-July 1, 2001

9:00am to 5:00pm Saturday and 8:00am to 4:00pm Sunday local time

This is a National Cup Competition ☆

Saturday's Events	Sunday's Events
A Gas ☆ PeeWee 30 Hand-Held Catapult Glider ☆ ABC Old Timer Fuselage Ignition 1/2 A Nostalgia Gas☆ B Nostalgia Gas☆ Old Time Rubber - Cabin & Stick Combined P-30 Rubber ☆	1/2 A Gas☆ C Gas☆ Classic Open Towline Glider ① (non circle-tow) .020 Old Timer/Nostalgia Combined ABC Old Timer Pylon Ignition Hand Launch Glider ☆ A Nostalgia Gas ☆ Moffet ☆
Hand-Held Catapult Glider (Jr)*☆ 1/2A Gas Power (Jr)*,(Sr.)☆	Hand Launch Glider (Jr)*, (Sr)☆ P-30 Rubber (Jr)*☆
Starting at 5:30pm (after awards) 3 Person Catapult Glider Team Challenge	
Starting at 6:00pm .020 Payload 1/2 A Nostalgia Payload Jetex	

High Point Trophy
To be awarded Sunday!
The more you fly
the better your chances!

Entrance Fees: $15.00 Flat Fee covers all events. All Juniors and Senior events are FREE! *

A $.25 AMA fee is required for all non-AMA member Junior participants.

Trophies through third place for (OSJ) events.

Contest Directors:

Charlie Jones
32130 Cambridge Circle
Avon Lake, Ohio 44012
(440)-933-7377

Warren Weisenbach
4568 W. 146 St.
Cleveland, Ohio 44135
(216)-671-8623

Send a SASE to one of the contest directors for a copy of the rules.

① **Classic Open Towline Glider (non circle-tow event)** – Any towline glider model is eligible. No circle towing allowed. No VIT functions allowed. No wing wiggler functions allowed. Auto rudder is allowed. No weight or size limits. Standard FAI towline length of 164ft. (50meters) maximum. Six attempt (flights that are 20seconds and under) to make three official flights.

AMA National Flying site rules apply. Check in at the CD's tent for contest rules.

The **INFORMER**

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2001 President
O. C. Stewart

Vice President
Lee Campbell

Sec'y/Treasurer
Meredith Chamberlain

Issue No. 2 - 01

46254847

2001 AREA F.F. SCHEDULE

May	12-13	FFMAS Annual FF Contest	Muncie, IN
	19-20	Skyscraper International Challenge	Wawayanda, NY
May 30 -	Jun 3	USIC/AMA Indoor NATS	Johnson City, TN
Jun	2-3	CIA OT/NosGas FF Contest	Muncie, IN
	4-5	CIA National Cup Challenge	Muncie, IN
	8-10	AMA Grand Event	Muncie, IN
	16	Dayton Sector Skirmish (FAC)	WPAFB, Dayton, OH
	16-17	M.A.M. OT FF/RC Asst/Slag/Nos Meet	Sturgis, MI
	23-24	52nd Annual InterCity FAI/Nos/AMA	Muncie, IN
Jun 30 -	Jul 1	NOFFA FF Contest	Muncie, IN
Jun 30 -	Jul 1	Florida State FF Meet	Palm Bay, FL
Jul 29 -	Aug 2	NFFS/AMA FF NATS	Muncie, IN
Aug	17-19	Empire States FF Championships	Geneseo, NY
	18-19	Dixie FF NATS	Palm Bay, FL
	25-26	Aeronuts M'western States FF Champs	Muncie, IN
Sep	1-2	COFFC FF Contest	Muncie, IN
	22-23	Flying Aces Midwest Nationals	Muncie, IN
	28-30	CIA 29th Annual FF Contest	Muncie, IN
Oct	1-5	SAM Champs	Las Vegas, NV
	6-7	Tri-County Aero Contest	Lawrenceville, IL
	6-8	Gathering Of Eagles	Pensacola, FL
Dec	28-30	48th King Orange International	Palm Bay, FL