CENTRAL INDIANA AEROMODELLERS

CIA INFORMER

FREE FLIGHT NEWS OF THE MIDWEST

** The Weather **
Rainy days
make
flyers grumble...

==========

- Editor -
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Mall Shows Aren't Just For RC'ers.... By Mo

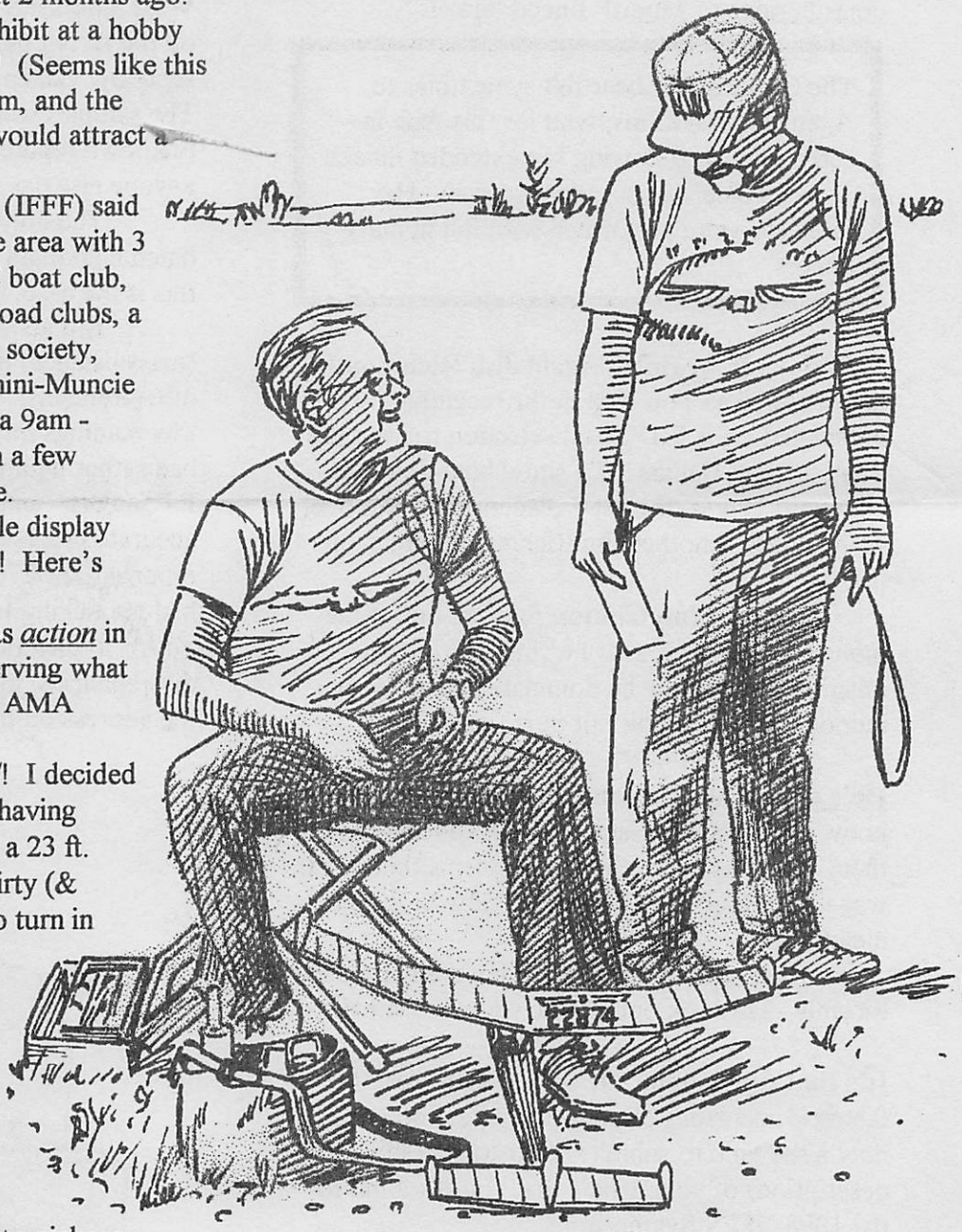
Did a fun thing thing about 2 months ago. Got tapped to have a *free-flite* exhibit at a hobby expo inside a southside Indy mall! (Seems like this aging mall needed a shot in the arm, and the promoter thought a hobby thing would attract a crowd.)

The guys in our local club (IFFF) said 'sure!'. We wound up sharing the area with 3 RC plane clubs, the Admirals' RC boat club, N-gauge and O-gauge model railroad clubs, a Rocket club, a local plastic model society, and an RC car group! Sort of a mini-Muncie sho, don'cha know! Since it was a 9am - 9pm thing, we did it in shifts, with a few hardy souls staying the whole time.

Would you believe our little display turned out to be the hit of the day! Here's what did it....

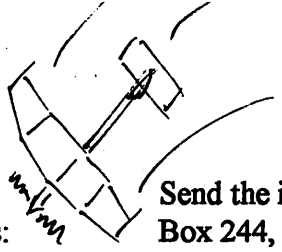
The key to our success was *action* in the exhibit! (Learned this by observing what booths were popular at the recent AMA Hobby Expo...)

You gotta have stuff that *MOVES*! I decided to bring some of my indoor stuff, having found out beforehand that we had a 23 ft. ceiling to work with, albeit a bit dirty (& drafty!) Had to trim the models to turn in less than a 20ft. circle!.



We brought along a video tape player and ran all the NFFS flicks we had - always had a crowd around that! We used up 3 long tables to show off all flavors of gas & rubber powered stuff. I encouraged kids & parents alike to pick up the big models and see how "heavy" they were. They couldn't believe the models' lightness - and the size of the 'rubber bands' in the big unlimited rubber ship. (Transparent covering helps, here!)

(cont'd p. 4)



For U On-line FF'ers...

Here's a few Agents' email addresses:
Sean Cochran: melinln.aol.com
Dick Covalt: rxcovalt@aol.com
Joe Mekina: mekinajp@asc-en.wpafb.af.mil
Phil Sullivan: ciasilk.aol.com
Moe Whittemore: whitte@ix.netcom.com
Mark Wood (& CIA page): mrwood@iquest.net

Keep in touch! But sent in your Informer contributions to Moe!!! I need 'em!!!

The CIA extends heartfelt sympathies to Agent **John Adams**, who lost his wife in early August, following her extended illness.

Alice was an Army veteran. Her farewells were performed with full military honors.....

He's done it, again!!! Agent **Jim Richmond** has qualified as Top Dog in the recently-completed USA FID Team selection trials at the Tustin Blimp Hangar! To show how tight the competition was, the 1st 7 placers had flites over 45 minutes! Another Jim Richmond miraculous last flight!

Agent **Stan Chilton** finished out of the money....after 30 years of trying. Hard to imagine, seeing how he dominates many other indoor classes! Look out next time, tho!

He's alive! Agent **Sean Cochran** wants all to know that he's alive, and hasn't forgotten about them. He's had some health problems (heart). It was touch & go for a while, but now he's on the mend!

Sean hasn't had time to build any models, recently - but look out for the winter months!!!

It's that time again....If you'd like to reap the fantastic accolades of your peers (and others!), now's the time to submit the abstracts (short description) of your article that you'll submit to the 1998 NFFS Symposium!

Send the info to Sympo Editor Dan Tracy, P.O. Box 244, Maple Valley, WA 98038. Get abstracts in before January 15, 1998, and full articles in before March 15, 1998!

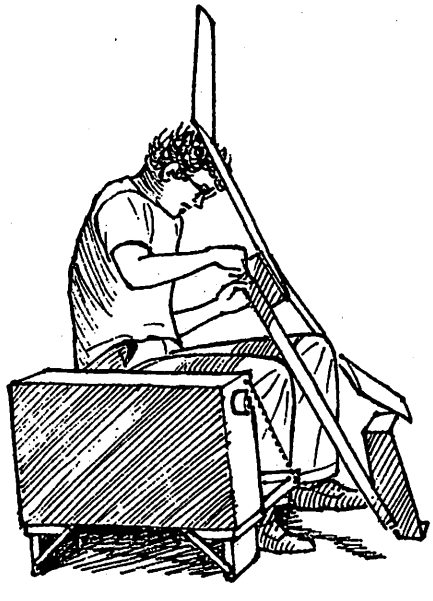
Recommendations for the various ***Models of the Year*** are to be sent to Agent **Bob Perkins**, 2285 Pinewood Rd., Columbus, OH 43220.

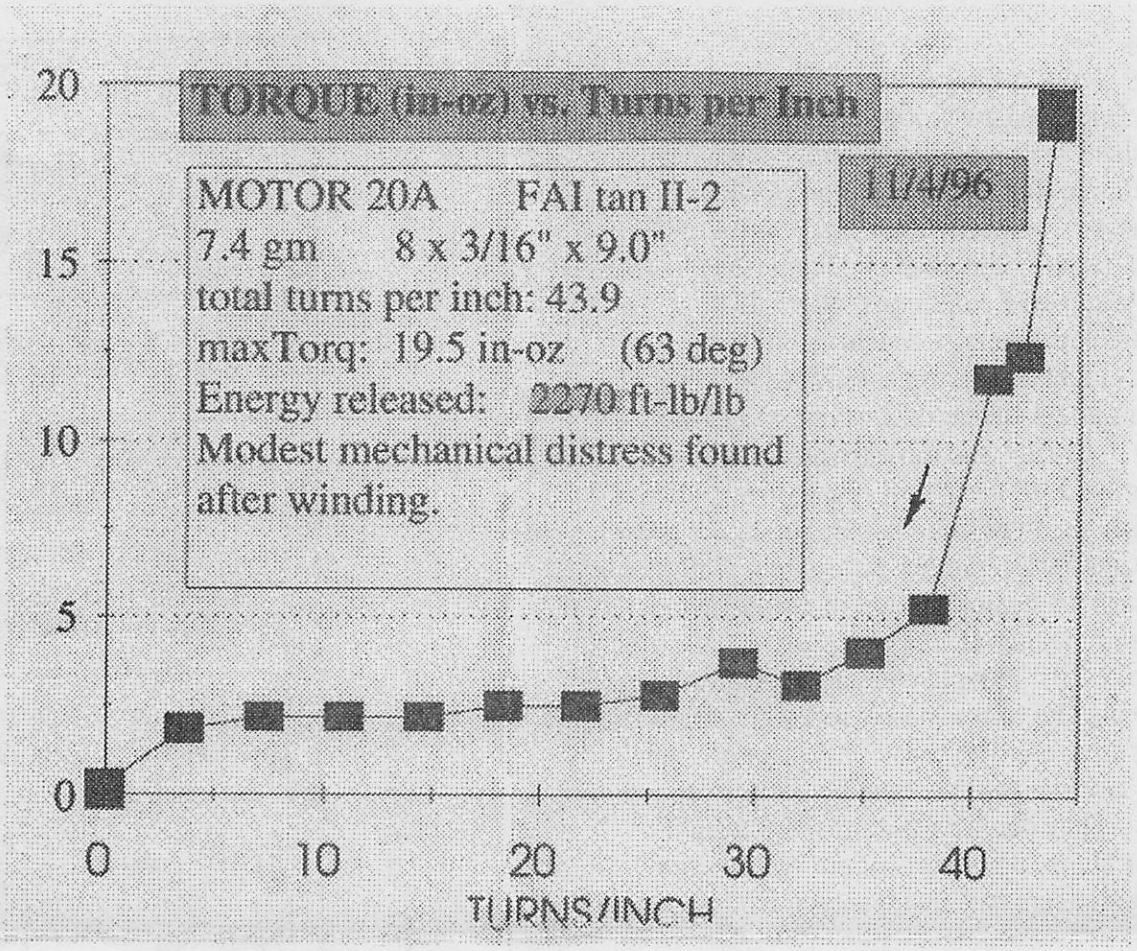
FAI Tan energy storage - other input... Agent **Walt Tomasch** sent in the unwinding curves seen on the facing page. He was surprised to find such low values of energy product with Tan II! The samples were from a late '96 batch of unknown repute. He'd like to know why - and if anyone else has measured a batch this bad!

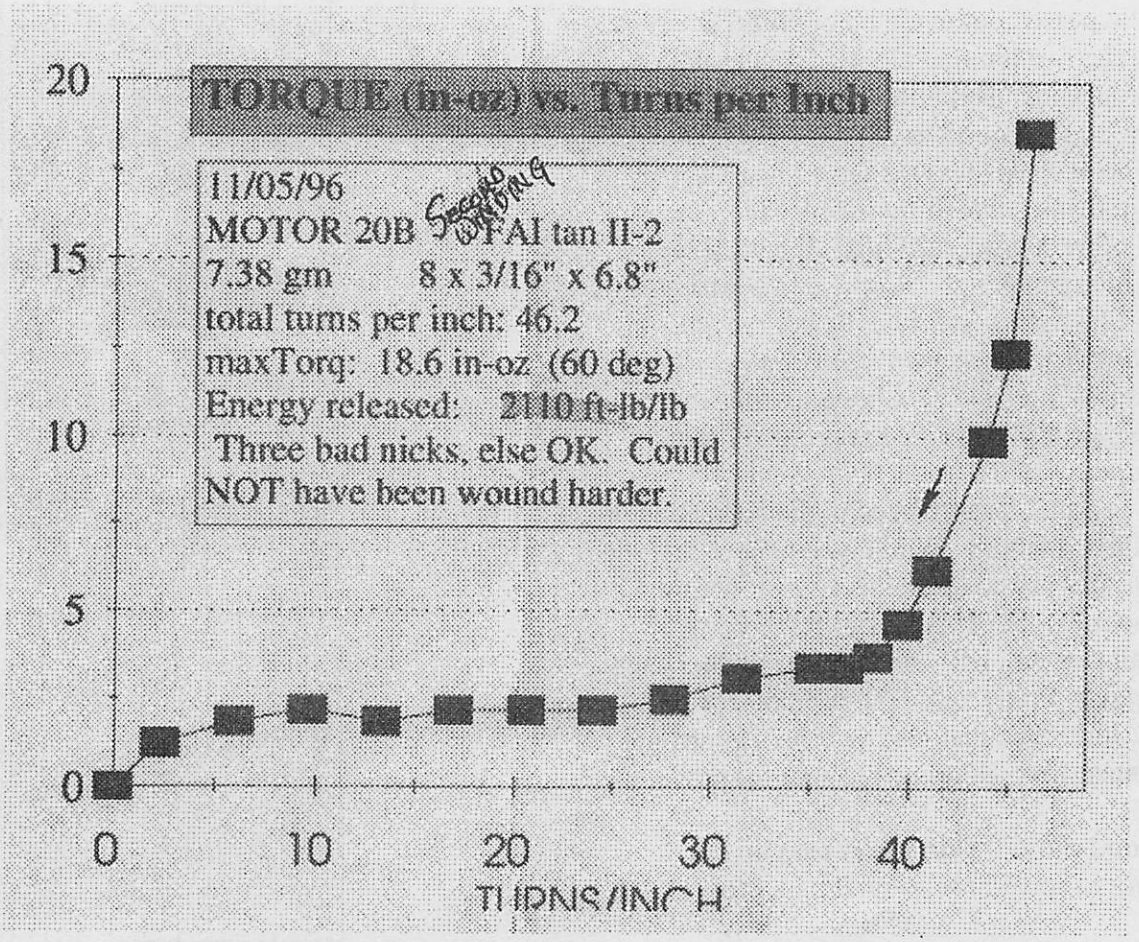
The only thing I can add is that maybe the batch he bought is still "green" (undercured). If this is the case, leave it in the sun for 6 months!

But an accurate torquemeter and scale (mass balance) is *critical* to energy storage measurements! On the other hand, I've gotten low readings on earlier rubber I've tested that had rather high values reported in the national F.F. media - and my torquemeter is fairly accurate (a 2% unit...) i.e. 3200-3500 ft#/# reported, vs. 2700-3000 ft#/# measured. This had me talking to myself for a while...

If anybody out there has measured similar discrepancies, just drop a line to the Informer at the address on the front page.




TORQUE (in-oz) vs. Turns per Inch
11/4/96
MOTOR 20A FAI tan II-2
7.4 gm 8 x 3/16" x 9.0"
total turns per inch: 43.9
maxTorq: 19.5 in-oz (63 deg)
Energy released: 2270 ft-lb/lb
Modest mechanical distress found after winding.
20
15
10
5
0
0
10
20
30
40
TURNS/INCH


TORQUE (in-oz) vs. Turns per Inch
11/05/96
MOTOR 20B Second Winding FAI tan II-2
7.38 gm 8 x 3/16" x 6.8"
total turns per inch: 46.2
maxTorq: 18.6 in-oz (60 deg)
Energy released: 2110 ft-lb/lb
Three bad nicks, else OK. Could NOT have been wound harder.
20
15
10
5
0
0
10
20
30
40
TURNS/INCH

...show! (cont'd from p. 1)

But the shew stopper was the Limited Pennyplane I put aloft (sacrificed!) damn near every 20 minutes! People couldn't believe how long and slow a model could fly, bounce off beams & walls, recover and keep climbing! (My best time under these weird conditions, was 5:15.) Interested kids, parents, teachers, RC'ers - you name it - mobbed the area and asked all kinds of questions about the models, where to get & fly 'em, etc.. Crazily, the most frequent question asked of the LPP was "how much does that cost?" ("75 cents worth of materials and 40 hours labor" was the answer!) Another action item that drew a crowd was the demonstration of stripping and winding of the indoor rubber motors (I used 4 or 5, flying the LPP)! People were amazed that we used instruments like torquemeters to keep track of our winding progress with these 'little rubber bands'! The RC clubs missed the boat by not having action displays! They could've put up a lightweight model or blimp. Plenty of room! At least the model railroaders had an advantage with operating layouts....

We passed out every bit of NFFS & AMA literature that we brought along. Even took in a couple of new members! Ran out of free plans and Informers, too. A good day!

The best part was the large lineup of kids winding & flying some of the AMA Cubs, Twiggies, and other rugged stuff that Agent **Roger Wathen** brought along! *(People at the national level are missing a good thing by not recognizing & exploiting Rog's way with kids & model planes! He's a natural magnet!!!*) I hope we influenced a few. Their parents were sure impressed! Maybe there's hope...

I was a bit disappointed in the dedication of a few of the exhibitors. Would you believe that the RC plane clubs pulled up stakes and left before 4 in the afternoon? And the Admirals left before 5? At 9pm, all that was left were the free flighters and the train guys! Pretty sad. The promoter was disgusted, too. Said that next year he's gonna get a commitment from all groups to stay for the duration!!!

Good show!! Don't ever pass up the opportunity to spread ***the gospel***! - Mo

1997 USA F1D Team Selection

	Contestant	AMA #	1	2	3	4	5	6	7	8	9	Best	2nd	Total
1	RICHMOND, Jim	4936	47:18	45:25	46:23	15:54	00:00	00:00	25:15	47:46	49:44	49:44	47:46	1:37:30
2	RANDOLPH, Bob	5848	24:36	23:19	47:41	00:00	40:51	17:43	48:21	00:00	00:00	48:21	47:41	1:36:02
3	COSLICK, Larry	4652	47:18	18:55	43:31	46:55	39:59	37:28	05:55	42:28	48:16	48:16	47:18	1:35:34
4	KAGAN, John	469254	12:07	42:21	36:15	46:28	41:06	47:58	47:14	28:51	45:12	47:58	47:14	1:35:12
5	BANKS, Cezar	8310	45:36	12:35	00:00	45:33	42:34	13:24	46:36	23:56	47:21	47:21	46:36	1:33:57
6	DOIG, Richard	5392	46:11	43:07	15:48	42:33	44:35	45:02	44:29	02:14	06:35	46:11	45:02	1:31:13
7	UNDERWOOD, Gary	1314	00:00	45:05	45:58	42:10	41:54	00:00	14:11	00:00	00:00	45:58	45:05	1:31:03
8	GIBBS, Bob	54051	40:20	44:39	00:00	41:45	00:00	00:00	13:56	00:00	00:00	44:39	41:45	1:26:24
9	CHILTON, Stan	L-30	43:16	20:50	38:55	38:51	24:28	33:10	15:35	36:04	09:49	43:16	38:55	1:22:11
10	WILLIAMS, Warren	5550	20:32	31:13	11:16	37:17	10:25	35:29	00:00	00:00	00:00	37:17	35:29	1:12:46
11	LEONARD, Jr., Nick	497460	26:38	27:42	08:21	28:19	27:50	25:46	27:55	30:20	31:52	31:52	30:20	1:02:12
12	LEONARD, Sr., Nick	497461	07:22	00:00	00:00	00:00	00:00	00:00	00:00	00:00	00:00	07:22	00:00	0:07:22

The following two pages is a description of a neat product by Agent **Dick Covalt**. His GloDriver seems to solve the mysterious burn-up of glo plugs, discovered after an otherwise successful engine run. Just ask any of the six testers ('Beta Sites') - Les Hallgarth, Phil Sullivan, Mark Wood, Steve Frazier, Meredith Chamberlain and Gib Robbins - how they like it! A foot-pedal model is also available, for hands-free operation.

GLOWDRIVER for DUMMIES
Operating Information

1. The GLOWDRIVER for DUMMIES has many advantages over other commercial units available today. The most significant being this glowdriver supplies power to the glowplug as it was designed to use it and does not require adjusting. It is small in size and is best utilized as a portable unit not permanently mounted to the fieldbox. In addition, it will operate properly down to 6 volts allowing an electric starter and the glowdriver to be operated from the same 12 volt battery without affecting the heat to the glowplug while using the starter. And like most glowdrivers it has a glowplug continuity indicator to instantly tell if the glowplug is bad. One disadvantage, as viewed by the electronics purist, is that it uses power rather inefficiently. Typical commercial glowdrivers deliver 50-60% of the power drawn from the battery to the glowplug. This glowdriver delivers about 12%. But since there is plenty of power available from a 9 ampere hour lead-acid wet cell for a full day of flying, and recharging costs only a couple of cents worth of electricity this is not considered a significant negative.

2. The GLOWDRIVER for DUMMIES has a "high" and a "low" voltage toggle switch. Most glowplugs are heated properly on the "low" setting. The only plugs found to date that require the "high" setting is the GloBee and the AME.

3. The GLOWDRIVER for DUMMIES is designed as an intermittent use device. In other words, it is not designed to hook up to your car battery and light a glow plug continuously until the battery is run down (This would take about 10 hours with a typical car battery). The unit will light a glow plug continuously at 75 degrees ambient in free air without overheating or going into thermal limiting. But if it is wrapped with a shop towel or setting in the desert sunshine in high summer it could go into thermal limiting in 10 minutes or so of continuous use. Thermal limiting is the manner in which the primary electronic component (voltage regulator) protects itself from meltdown; meaning it shuts itself off if it gets too hot.

4. The die-cast aluminum housing containing the glowdriver is the primary conductor of heat away from the electronic components. In order to maximize the conduction of heat away from the voltage regulator it is not electrically insulated from the aluminum housing. The positive glowplug lead and the housing are at the same voltage, so if the negative glowplug lead is touched to the housing the unit will be shorted out just as if the two glowplug leads are connected together.

5. Shorting the glowplug leads will cause a high current to flow (approx. 8 -12 amps) but will not destroy the device. However, shorting the glowplug leads generates excessive heat very rapidly in the voltage regulator causing it to go into thermal limiting and causing considerable thermal stress on the device. Something like flooring the accelerator on your car and holding it there while in neutral. Generally not causing any damage but certainly not doing any good.

GLOWDRIVER for DUMMIES
Operating Information

6. During normal use the glowdriver housing will become only warm, but if the leads are shorted or a glowplug is left hooked up for a very long time the aluminum case could get hot enough to burn your fingers. Under the worst possible conditions such as wrapped up in a shop towel with the glowplug leads shorted for a very long time, parts of the aluminum housing could approach 200 degrees F. Enough to cause a nasty burn, but considerably below the point of causing a fire hazard.

7. Since this glowdriver is a voltage source and simulates a battery it is sensitive to the resistance in the glowplug leads. The glowplug leads should be no smaller than #16 AWG stranded wire and no longer than five feet for best performance. Should longer glowplug leads be desired go to #14 AWG stranded for leads from five to ten feet in length.

8. The power input to the GLOWDRIVER for DUMMIES is two 3-way multipurpose banana jacks. The red is positive (+) 12 volt input from the battery and the black is negative (-). It is recommended that #16 AWG lampcord be used to connect from the battery to the glowdriver for lengths up to ten feet, #14 AWG for ten to twenty feet. A 1/4" ring tongue terminal should be used to terminate the power cord and connect to the multipurpose banana jacks leaving the banana jack open to connect starters, fuel pumps, soldering irons, etc., to the battery using very convenient banana plugs (Radio Shack #274-721 2/$1.59.)

9. Although the GLOWDRIVER for DUMMIES only draws power when a glow plug is connected, the glowdriver housing and the positive glowplug lead is 12 volts positive dropping to glowplug voltage at about 30 milliamps load. For this reason it would be best if the glowdriver is disconnected from the battery for storage as an unintentional short to the housing or glowplug lead could run down the battery very rapidly. It is suggested that a 3-prong household receptacle be installed in the field box and the glowdriver be connected to the 12 volt battery with a standard 115 volt plug. Note: 3-Prong plug and receptacle required to maintain voltage polarity.

10. Removing two screws from the aluminum cover and removing reveals a 15 turn potentiometer used to fine tune the voltage output. Turning counterclockwise facing the adjustment screw reduces the voltage and clockwise increases it. The voltage adjustment sets the "low" range and "high" range at the same time. The "high" range voltage is a fixed .2 volts higher than the "low" setting.

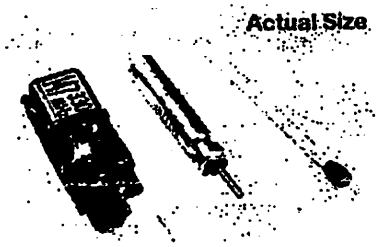
11. This glowdriver with its robust design could be combined with a footswitch in clever ways for competition gas freeflight flying to perhaps reduce glowplug burnout, make the larger engines easier to start cranking, and reduce overall battery drain.

12. The GLOWDRIVER for DUMMIES is designed to be relatively inexpensive, rugged, and versatile. Given reasonable care it should last a lifetime.

GLOWDR2.DOC 1/22/97 DC

Free flight electronic model locator

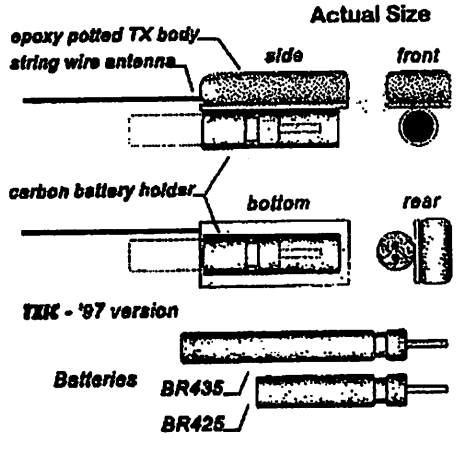
These tiny and very light radio-locators are used to track a free-flight model and quickly retrieve it after landing. A model provided with one of these devices will be transmitting its position for days, being easily locatable through a hand-held receiver.
These 'beacons' are very helpful during fly-offs, with strong thermals or wind, and whenever a model is lost, hidden or however difficult to find.



Main features

- **Monolithic epoxy encapsulated waterproof body, flexible string wire antenna and carbon-aluminium battery holder with gold-plated contact leads**
- **High stability and reliability miniature crystal controlled surface mounted (SMD) circuit**
- **Unmodulated pulse carrier wave. Very narrow band and spurious frequencies. Virtually interference.**
- **Very long battery life: many days in safe conditions at continuous full power, should the retrieval take long time for any reason. Single 3V lithium cell.**

Retrieval: the simple 'body-shielding' technique of localisation is easy to learn and clearly detailed in the instructions supplied.



Frequencies: the frequency band covered by the receiver employed must be specified when ordering, so that a proper channel can be assigned by choosing it from a stock of channels always maintained. These micro-transmitters are assembled in small batches, therefore requests of specific frequencies may result in a delayed delivery. A unique frequency is assigned to each user in order to avoid possible interference during competitions.

Receiver required: any radio-amateur VHF Ham Band or Marine Band transceiver, VHF receiver or scanner covering any band or fixed channel within 138-174 MHz will meet the necessary requirements. The retrieval is performed by using the standard short rubber receiver antenna, a telescopic stylus antenna or a portable directional antenna (e.g. HB9E type) if a longer range is needed.

Shipping time: about one month.

The radio-locators can be supplied either in pairs (i.e. two identical units both working on the same frequency) or as single units.

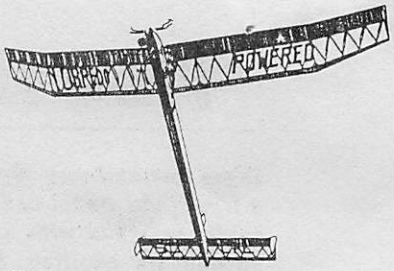
TECHNICAL DATA

- **Frequency range : 138.0~174.0 MHz**
- **Outside dimensions : 19.5 (L) x 9.5 (H) x 8.5(W) mm.**
- **Weight : 1.85 gr. approx.**
- **Battery: Lithium 3V single cell - 0.8 gr. (BR435 type) or 0.5 gr. (BR425 type)**
- **Battery lifetime : 8~10 days (BR435 type) or 5~7 days (BR425 type) continuously**
- **In flight range : 10~20 Km.**
- **Ground range : 500~700 mts. with the standard short rubber receiver antenna ; 3~5 km with a 'HB9E' portable directional receiver antenna**

For further information please contact :

Gino Ursicino
Via Ferrara 27/A
02100 RIETI (ITALY)

Phone/Fax: +39-746-205601
INTERNET e-mail: masursi@email.telpress.it



Central Indiana Aeromodellers

25th Annual Regional

FREE FLIGHT CONTEST

At the AMA Flying Site in Muncie, Indiana - September 13, 14, 1997.

This is an AMA "AAA" Sanction Contest - Category III

Saturday, 9/13 9:00 - 5:00 EST

- Classic Power
- A/B AMA Gas
- Mulvihill Rubber
- Hand Held Catapult (J, SO)
- Pee Wee 30
- ½ A Nos Gas
- ABC Nos Gas
- .020 PayLoad
- Moffett/Korda Combo

Sunday, 9/14 9:00 - 4:00 EST

- ½ A AMA Gas
- C/D AMA Gas
- P-30 Rubber
- Hand Launch Gllider (J,SO)
- ABC Old Timer Gas
- ¼ A Nos Gas/.020 Replica
- Jr. Rubber (Anything Goes)

All events are Jr. -Sr.-Open combined unless otherwise noted above.

Entry Fee: $10 first event. $3 for each additional event. ($25 Max) Juniors, no entry fee!

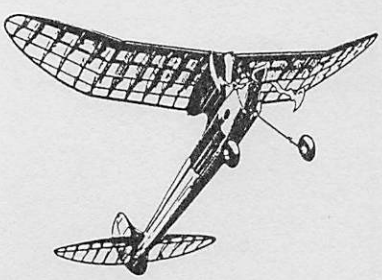
Awards: Trophies to third place in all events. Trophies and merchandise in Junior HLG, HHCat., and Junior Rubber.

Rules: AMA events will be flown according to the 1997 AMA Rule Book, Cat. III.

Old Timer events will be flown according to the Sam Rule Book, **except** only original or approved repro ignition engines are permitted. No diesels or glow conversions.

PeeWee 30 according to Orbiteer Rules. **Cat. Glider** according to CIA Rules.

Classic Power: Plain bearing or Nos Gas legal engine. No auto surfaces except DT.



CD: Phil Sullivan
4536 Southern Ave
Anderson, IN 46013
(765) 640-4536

CD: Moe Whittemore
2348S, 700W
New Palestine, IN 46163
(317)861-4266



First Annual

HOOSIER CUP

FAI Free Flight Meet

an Americas Cup event.

Sponsored by the Central Indiana Aeromodelers

Sat. Sep. 13, 1997 Events: F1A, F1B, F1C
Sun Sep. 14, 1997 Events: F1G, F1H, F1J

- Entry Fee: $10.00 first event plus $3.00 for each additional event.
- Flying begins 9:00 am EST both days.
- All aircraft must be processed prior to flying first flight.
- "Large" events will be flown in seven rounds of 90 minutes each.
- Rounds start on the hour. Flyoffs begin at 4:00 pm and/or may be flown Sunday morning, pilots discretion.
- Mini events will fly five flights, no rounds, plus flyoffs.
- Flying on Sunday will finish by 3:00 pm.
- Events will be flown according to FAI sporting code.
- There will be some prizes.
- CD:

Mark Wood
5923 Hopi Rd
Danville, In 46122
(317)-745-6770

MID-AMERICA F. F. CHAMPS !

MID-AMERICA AIR CENTER

LAWRENCEVILLE, ILL AMA SANCTIONED SPONSORED BY TRI COUNTY AERO CLUB
OCTOBER 4 AND 5 1997 SATURDAY OCT. 4 9:00 AM -5:30 PM
PRACTICE/TESTING FRIDAY OCT. 3 SUNDAY OCT. 5 8:00 AM -4:30 PM

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

SATURDAY-OCT. 4

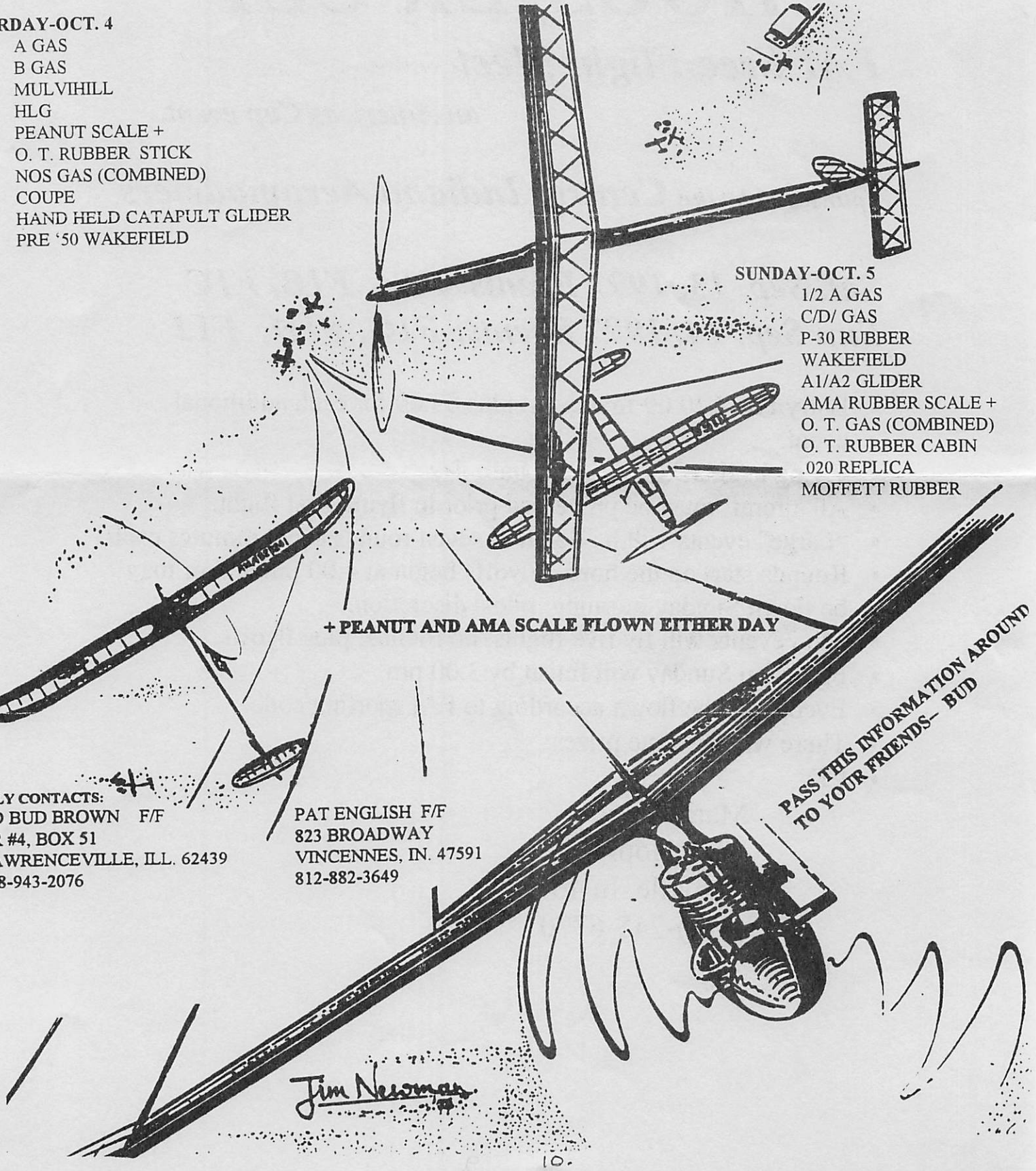
A GAS
B GAS
MULVIHILL
HLG
PEANUT SCALE +
O. T. RUBBER STICK
NOS GAS (COMBINED)
COUPE
HAND HELD CATAPULT GLIDER
PRE '50 WAKEFIELD

SUNDAY-OCT. 5

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

+ PEANUT AND AMA SCALE FLOWN EITHER DAY

PASS THIS INFORMATION AROUND TO YOUR FRIENDS– BUD



EARLY CONTACTS:

CD BUD BROWN F/F
RR #4, BOX 51
LAWRENCEVILLE, ILL. 62439
618-943-2076

PAT ENGLISH F/F
823 BROADWAY
VINCENNES, IN. 47591
812-882-3649

CIA FALL SCRAMBLE
FREEFLIGHT EXTRAVAGANZA

OCTOBER 18 & 19, 1997
INTERNATIONAL AEROMODELING CENTER - MUNCIE, INDIANA
9 - 5 EST Saturday; 8 - 4 EST Sunday

This is an outdoor freeflight duration **Category Championship** and **Grand Championship** contest. Fly any multiflight event either day but must start and finish the same day. No Reentries.
Categories and events are as follows:

NON-POWERED	CO2, ROCKET & RUBBER POWERED	ELECTRIC & GAS POWERED
HL GLIDER	MULVIHILL	1/2A GAS
CATAPULT GLIDER	BIG E	A GAS
F1A - A2 GLIDER	ORNITHOPTER	B GAS
F1H - A1 GLIDER	MOFFETT(14gm.)	C GAS
	BOSTONIAN	D GAS
	F1B - WAKEFIELD	PAYLOAD
	F1G - COUPE d'HIVER	F1C - POWER
	*CO2	F1J - SMALL POWER
	ROCKET	*ELECTRIC
	P-30	*CIA CLASSIC POWER
	#DAWN UNLIMITED	*NOS GAS
	AUTOGIRO	
	HELICOPTER	*All classes combined
		# Fly Sunday morning

-THIS WILL BE A CATEGORY III CONTEST FOR APPLICABLE EVENTS.
- LARGE FAI; (7) FLIGHTS, NO ROUNDS, (3) MINUTE MAX WEATHER PERMITTING -- SMALL FAI (5) FLIGHTS, NO ROUNDS, (2) MINUTE MAX.
-CIA CLASSIC POWER - (3) SEVEN SECOND ENGINE RUNS, THEN (5) SECONDS FOR ALL FLYOFFS - (2) MINUTE MAXES FOR ALL FLIGHTS (no autosurfaces except for DT and only plain bearing or nostalgia legal engines).
-NOSTALGIA GAS - (3) NINE SECOND ENGINE RUNS, THEN (7) SECONDS FOR 1st FLYOFF FLIGHT, THEN (6) SECONDS FOR ALL SUBSEQUENT FLYOFF FLIGHTS.

AWARDS: Merchandise award for the **HIGH TIME** in each event for Open and for Jr-Sr combined.
Trophy and merchandise award for each Category Champion (Jr-Sr-Op comb.) - Winner determined by dividing the number of entries in an event by the place won in the event to determine a score and summing the best (3) event scores for a category.
Trophy and merchandise award for Open Grand Champion & Jr-Sr Grand Champion - Winner determined by summing the best event score from each of the three categories (must fly one event in each category to qualify).

ENTRY FEES: $7.00 first event - $5.00 2nd event. $12.00 MAX entry fee. Juniors and Seniors free.

CONTEST DIRECTOR: Richard Covalt, 2716 Catalina Drive, Anderson, IN 46012 Ph: (765) 643-2278

CIASCRAM.DOC 5/8/97 DC

The INFORMER

2348S, 700W
New Palestine,
IN
46163

1997 President
Dick Covalt

Vice President
Mark Wood

Sec'y/Treasurer
Les Hallgarth

Issue No. 4 - 97

1997 C.I.A. AREA FREEFLIGHT CONTEST CALENDAR

Aug	8,9,10	Empire State FF Champs	Fayette, NY
	10	Bong Eagles Annual FF Meet	Bong, WI
	10	M.A.M. OT Rubber, Slag, JA Postal	Sturgis, MI
	12,13,14	Great Grape G'ring FF/ RC Assist	Gananoque, Ont.
	16,17	Cuckoo Challenge FF Meet	Cuckoo, VA
	16,17	NOFFA FF Meet	WPAFB, Dayton, OH
	17	Pelicans O.T. Meet	Bong, WI
	23	Aeronuts Fall O.T. FF Meet	Muncie, IN
	24	Aeronuts Midw'n States FF Meet	Muncie, IN
Sep	1	Labor Day	
	6, 7	M.A.M. OT FF Meet/RC Assist	Sturgis, MI
	6, 7	FF Practice Session	WPAFB, Dayton, OH
	7	Bong Eagles Special Meet	Bong, WI
	13, 14	CIA AAA FF Contest	Muncie, IN
	13, 14	Hoosier Cup (AM Cup Comp's)	Muncie, IN
	22-29	SAM Champs	Las Vegas, NV
	20, 21	CAAMA Fall FF Meet	Cuckoo, VA
	27, 28	COFFC Annual Meet (Rain date)	Muncie, IN
Oct	4, 5	Tri-County Aero Club FF Meet	Lawrenceville, IN
	11, 12	FF Practice Session	WPAFB, Dayton, OH
	18, 19	CIA Fall Scramble	Muncie, IN
Nov	9	MECA Collecto	Columbus, IN

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