

**JAYHAWK MODEL MASTERS NEWSLETTER**  
132 Florida Street Lawrence, Kansas 66044

**PRESIDENT/TREASURER**  
Richard Ballard  
913/843-8623

**VICE PRESIDENT**  
Dave Plamann  
913/842-1837

**SECRETARY/EDITOR**  
Tom Puckett  
913/841-5889



**FIELD SAFETY**  
Darrel Cordle  
913/749-4146

Nate Ericson  
913/843-7395

Chuck Hardman  
913/843-0733

Bill McCollum  
913/843-1315

**A . M . A . CHARTER #2013**

**ISSUE DATE: September 8, 1990**

**NEXT MEETING: September 15, 1990; DAYS INN MOTEL; 8:30 a.m.**

**MEETING MINUTES**  
**August 18, 1990**

Richard called the meeting to order. Door prize was won by Jim Crawford.

Richard reported \$760.90 in the treasury. We have made over \$113.00 in door prizes, and are studying the possibility of having a Futaba Radio System as the door prize at the end of the year. It is time to order Club Calendars. If you are interested in ordering one, contact Richard Ballard.

Officer nominations were held. (See later article for results.)

Bill Elkins thinks he can get t-shirts for \$7.50 each with a minimum order of 12 shirts.

Richard reported that he has sent letters to various manufacturers to see if they will donate prizes for our Fall Fun-Fly which will be

October 14th.

There were three planes shown at the meeting. Jesse brought a PT-40, Richard brought his Zero wing, and Nate brought a Trainer-40.

Next meeting's door prize will be an ACE Chargemaster.

The meeting was adjourned.

\*\*\*\*\*

**NOMINATIONS FOR OFFICERS ARE:**

**PRESIDENT:** Richard Ballard  
Dave Plamann

**VICE PRESIDENT:** Dave Plamann  
Tom Puckett  
Nate Erickson

**TREASURER:** Richard Ballard  
Darrel Cordle  
Tom Puckett

SECRETARY/EDITOR: Bill Elkins  
Tom Puckett

SAFETY OFFICER\*: Darrel Cordle  
Nate Erickson  
Chuck Hardman  
Bill McCollum

\*The Constitution states there is to be only one Safety Officer.

The Constitution also states that one person can only hold two offices.

\* \* \* \* \*

PETERSON-KRIER AIRSHOW  
Emporia, Kansas

(the barnstormers are alive and well)

As we announced at the August meeting, our club was invited to the Emporia, Kansas All-American Airshow. As it turned out, Ya should have been there!

Oh sure! We only got in three flights after driving 85 miles at 6:00 AM on Sunday morning. As soon as the private aircraft started to arrive, the FBO had to follow FAA rules and give the Stearmans and Beech Stagger-wings, and J-3's and such, clear air-space. Makes perfect sense to me except I wanted to fly! Oh well! I still think I could have missed most of them!

Darrel Cordle and my wife and I ended up with FREE admission and parking right next to the main hanger where our R/C airplanes were displayed all day. Darrel and I also ended up in the center of the runway holding the poles for an inverted ribbon cut by the Krier Super-Chipmunk!

Friends! You ain't lived until you have seen a real, live, Super-Chipmunk with the smoke ON, coming at you inverted at 200 MPH with the

rudder dragging the white line in the center of the runway!

Darrel and I were warned to watch the ribbon and NOT the plane, because the pilot (Todd Peterson) watches the balloon in the center of the ribbon (and not the ground) to aim on during the cut. I Believed! I think Darrel did too! In fact, I think we all agreed that WE BELIEVED!

I watched the balloon and saw a direct hit by the center of the spinner nose cone! Todd Peterson, flying the late Harold Krier's Super-Chipmunk nailed the sucker dead-center, with a 20 MPH quartering crosswind, upside down, with the tail almost dragging the ground! Some kind of FLYING!!

Later in the show, we saw an excellent display of Dead-Stick aerobatics by Ms. Jo Peterson in her Clipped-Wing Cub. (Nice Shorts, JO!)

We also saw a display of the Super-Pitts Bipe (the low show) flown by Kirby Chambliss that had you wondering at times where the nearest Crash-Truck was located! This guy and this Pitts is good!

In the meantime, we must have answered a thousand questions about our R/C planes and WHEN we were going to fly again! As it turned out, we didn't! Because of air-space restrictions, and fear of damage to the real airplanes, we couldn't fly during the rest of the show. Too bad, because the interest was there and the Emporia Club seems to not care to show up at things like this! What a great way to lose more flying fields and public interest in R/C! Way to go guys!

After it was all over, Wilma and I got a ride in a Maule Rocket STOL. Talk about a high rate of climb!

runway after a very short roll-out with three people aboard. The air was a little rough and Wilma hadn't flown before, so she wasn't real impressed, but later admitted it was great!

Myself? I have never seen the earth look prettier from the air! The fields were bright green, the ponds were full, and there was a rainbow in the distance with the sun shining through. It was like I think a view from heaven might be like! But enough of that!

The Peterson-Krier All-American Airshow is great! They are their own ground-crew, barker, chief cook, and bottle washer. In short they are the Old Time Barnstormers of the present day airshow circuit. It seems they travel from show to show from their Arizona homebase putting on shows at small airports all over the country. They do the ground-work, and the leg-work, and the flying, just like Waldo Pepper did in the old days! If you get another chance, you should go see them while you can.

If you show up early and stand around awhile, you too could find yourself looking at an inverted Super-Chipmunk coming at you at 200+ MPH with its tail almost dragging the ground. Darrel Cordle and I did, and it was great! Ya Should A Been There !!! **JUST LIKE WE SAID AT THE MEETING!**

Richard Ballard

\* \* \* \* \*

#### DEFINITIONS TO PONDER (Wing Loading)

If you read model magazines, or adds, or even kit boxes, you no doubt have often run across this term. What does it mean? In short, it means how much weight (per sq./foot of wing area) your

wing has to carry in level flight to support the weight of the aircraft.

A normal Balsa trainer such as a PT-40 or Eagle has a wing loading of around 15 oz./ft. Going down the scale, a glider such as a Gentle Lady, would run around 5-10 oz./ft. Going up the scale, a Ducted Fan F-4 Phantom or Scale W.W.II Fighter could easily run 25-35 oz./ft.

So what? Well, "What" is how fast your aircraft has to fly to maintain enough lift to stay in the air! At 5-10 oz./ft., a glider lands at 5 MPH or less. At 30 oz./ft., you better plan on 30-40 MPH to maintain flying speed! How do you figure it out? Well, here are some things you need to know first: 1) Wing area: Usually given in sq./in. (144 sq./in. = 1 sq./ft.). 2) Model weight: Usually given in pounds (lb.) or ounces (oz.) (16 oz. per lb.).

Let's figure out the wing loading on an average .40 size sport design.

1. The plane has 600 sq./in. of wing area.
2. It weighs 6 lbs. (or 6 x 16 oz. = 96 oz.).
3. Now divide 600 sq./in. by 144 = 4.166 sq./ft.
4. Next, divide the weight in oz. (96) by the wing area in sq./ft (4.166) = 23.04 oz./ft.

What you see here is a fairly lightly loaded wing that should slow down well on landing. Flight performance should be good!

Now, let's try that new F-23 Tiger Lizard you just saw in the Model Glomer magazine. You know the one! It said the plane had:

1. Span = 44 inches
2. Cord = 3 inches

3. Weight = 17 lbs.
4. Power = Rossi .90 Ducted Fan on 70% Nitro

How will it fly? Well, the article said it was a pussycat. Let's figure it out!

1. 44" Span x 3" Cord = 132 sq./in wing area.
2. 17 lb. x 16 oz. = 272 oz. weight.
3. 132 sq./in. area divided by 144 = .916 sq./ft. wing area.

To find the wing loading on the F-23 Tiger Lizard:

1. Divide the weight in oz. = 272.
2. By the area in sq./ft. = .916.
3. 272 divided by .916 = 296.94 oz./ft.

Your Tiger Lizard will have a wing loading of 297 oz./ft. and will not fly at all unless you launch it from the Space Shuttle on a windy day!!

Play around with this formula on some planes that you know something about. Before long, you won't have to build a kit to find out how it flies!

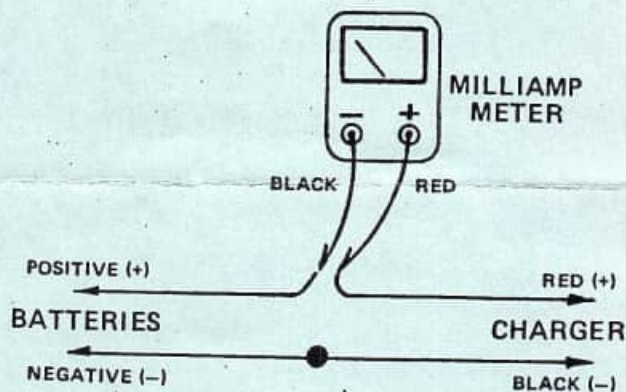
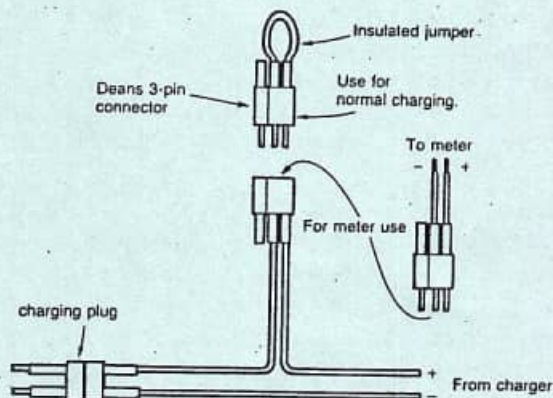
RLB

\*\*\*\*\*

## B. MEASURING THE CHARGE RATE

If you wish to measure the charge rate so you know what is going on when the batteries are being charged, it is necessary to have an ampmeter capable of measuring 150ma or so. A small, inexpensive Radio Shack multimeter is fine.

You need to hook it in the charge circuit so it is in series; i.e., the current flows thru the meter. A suggested procedure is illustrated to perform this task, although not necessary as long as the same result is accomplished. Always be careful not to short the batteries or charger out or damage can result! Also, when dealing with batteries, always maintain the proper polarity.



*Carroll's*

PEOPLE



"Well whatever it is, it's not a tick, so go finish mowing the lawn."

*Carroll's*

PSYCHIATRY



"... and if your kleptomania gets worse, try to pick me up a 5-channel, 2-stick rig, will you?"

AN IMPORTANT MESSAGE FROM THE PRESIDENT

Reports continue to reach me of safety rule violations at the flying field. Among the more serious are the following:

- A. High-Speed passes down the runway.
- B. More then four planes in the air at one time.
- C. Not flying on pilot station blocks.
  
- D. Over-Flight of the county road south of the field.
- E. Over-Flight of the parking lot.

Items A, B, and C are common sense rules established to prevent 3-IM and other Radio interference problems from crashing your, or someone elses airplane. It is a known fact that following these three simple rules will prevent over 90 % of our "Glitch" problems.

Items D & E not only violate Club Rules but also put our flying field in jeopardy. The map printed below clearly defines the OVERFLIGHT and SAFETY ZONE boundrys of our field lease agreement.

PLEASE NOTE THAT THE ROAD AND PARKING LOT ARE NOT INCLUDED. It should also be fairly apparent that with almost 100 acres of leased flying space, plus another 1000 or so acres to the west, North, and East, THERE IS NO GOOD REASON TO FLY OVER A PUBLIC ROAD OR PARKING LOT FOR ANY REASON.

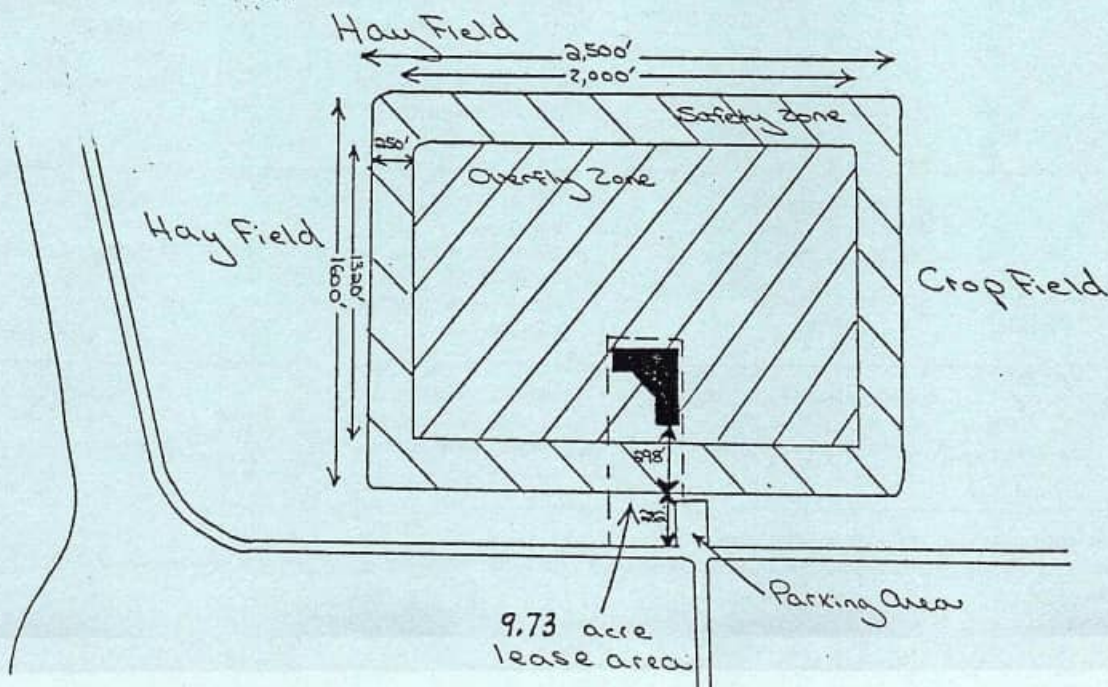
Be advised that our Club Field Rules became part of the A.M.A. Insurance package when we received our Club Charter. IF YOU HAVE AN ACCIDENT RESULTING IN INJURY OR PROPERTY DAMAGE WHILE IN VIOLATION OF CLUB FIELD RULES YOUR INSURANCE IS NO GOOD.

You can expect no help from the Club Officers or A.M.A.!

It would be in everyones best interest if as a Club, we decide to no longer tolorate Rules violations. I feel that by now everyone should know what the rules are and also why they were established. If you still chose to violate them, or tolerate those who do, there is not much I can do about it, however:

JUST REMEMBER, IT IS YOUR FLYING AREA THAT THESE PEOPLE ARE PUTTING AT RISK!

RICHARD L. BALLARD  
PRESIDENT

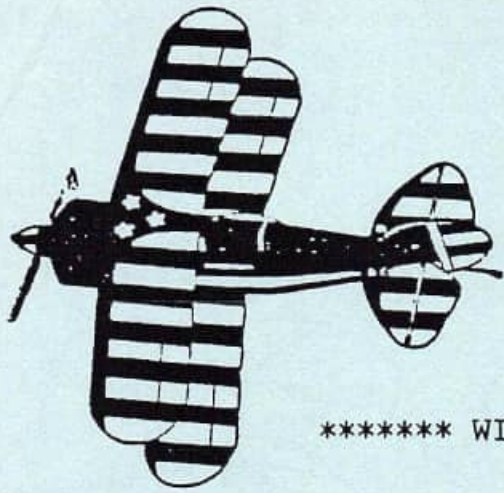


TRIM FEATURE	MANEUVERS	OBSERVATIONS	CORRECTIONS
CONTROL CENTERING	Fly general circles and random maneuvers.	Try for hands off straight and level flight.	Readjust linkages so that Tx trims are centered.
CONTROL THROWS	Random maneuvers.	A. Too sensitive, jerky controls. B. Not sufficient control.	If A, change linkages to reduce throws. If B, increase throws.
ENGINE THRUST ANGLE <sup>1</sup>	From straight flight, chop throttle quickly.	A. Aircraft continues level path for short distance. B. Plane pitches nose up. C. Plane pitches nose down.	If A, trim is okay. If B, decrease downthrust. If C, increase downthrust.
CENTER OF GRAVITY LONGITUDINAL BALANCE	From level flight roll to 45-degree bank and neutralize controls.	A. Continues in bank for moderate distance. B. Nose pitches up. C. Nose drops.	If A, trim is good. If B, add nose weight. If C, remove nose weight.
SPLIT ELEVATORS (Also Yaw and C.G.)	Into wind, pull open loops, using only elevator. Repeat tests doing outside loops to inverted entry.	A. Wings are level throughout. B. Plane tends toward outside when right side up, and to inside when inverted. C. Plane goes in on regular loops, and out on inverted. D. Plane goes out on both types of loops. E. Plane goes in on both types of loops.	If A, trim is fine. If B, add weight to right wing, or add right rudder. If C, add weight to left wing, or add left rudder. If D, raise right half of elevator (or lower left). If E, raise left half of elevator (or lower right).
YAW <sup>2</sup>	Into wind, do open loops, using only elevator. Repeat tests doing outside loops from inverted entry.	A. Wings are level throughout. B. Yaws to right in both inside and outside loops. C. Yaws to left in both inside and outside loops. D. Yaws right on insides, and left on outside loops. E. Yaws left on insides, and right on outside loops.	If A, trim is correct. If B, add left rudder trim. If C, add right rudder trim. If D, add left aileron trim. If E, add right aileron trim.
LATERAL BALANCE	Into wind, do tight inside loops, or make straight up climbs into Hammerheads. Do same from inverted entry.	A. Wings are level and plane falls to either side randomly in Hammerhead. B. Falls off to left in both inside and outside loops. Worsens as loops lighten. C. Falls off to right in both loops. Worsens as loops tighten. D. Falls off in opposite directions on inside and outside loops.	If A, trim is correct. If B, add weight to right wing tip. If C, add weight to left wing tip. If D, change aileron trim. <sup>3</sup>
AILERON RIGGING	With wings level, pull to vertical climb and neutralize controls.	A. Climb continues along same path. B. Nose tends to go to inside loop. C. Nose tends to go to outside loop.	If A, trim is correct. If B, raise both ailerons very slightly. If C, lower both ailerons very slightly.
WING INCIDENCE	Knife edge flight.	A. Model tends to veer in nose up direction. B. Model veers in nose down direction.	If A, reduce wing incidence. If B, increase wing incidence.

1. Engine thrust angle and C.G. interact. Check both.

2. Yaw and lateral balance produce similar symptoms. Note that fin may be crooked. Right and left references are from the plane's vantage point.

3. Ailerons cannot always be trimmed without sealing the hinge gap.



# IMAC Sport Aerobatics

## Contest

\*\*\*\*\* WING TIP III SPORT AEROBATIC CONTEST \*\*\*\*\*

AMA SANCTIONED

DATE: September 22, 1990

SITE: Hillsdale Lake  
Flying Site

(SEE MAP ON BACK OF THIS FLYER)

Check-In and Registration at 9:00 a.m.

Fly at 10:00 a.m.

Special Welcome to Beginners!

NOT LIMITED TO IMAC MEMBERS!

1990 AMA License is Required

FCC is Required for 50/53 Mhz

AMA Rules Will Be Followed

(Exceptions: Any type of plane is accepted for Basic and for Sportsman categories - Safety is paramount - Realistic human pilot is optional in all categories. Bonus for Biplanes = 5%, bonus for realistic human pilot = 5%)



WELCOME!

Classes: Basic (First 8 manouvers of Sportsman Sequence)  
Sportsman - Advanced - Unlimited

Prizes: Trophies to first and second place in each class.  
Medals to first three places in each class.

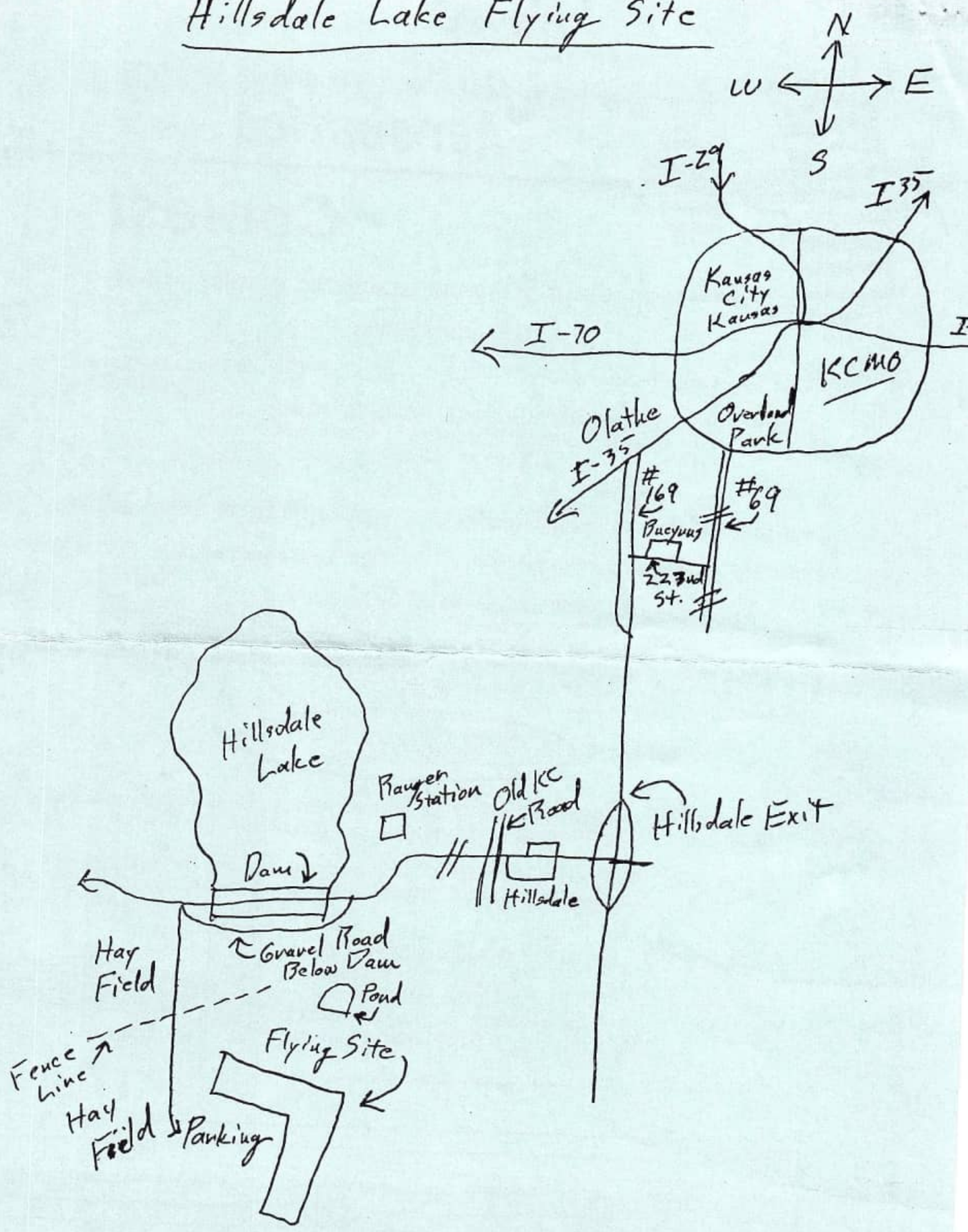


Contest Director:  
R. L. "Doc" Scraper  
9524 Roe Avenue  
Overland Park, Kansas 66207.  
(913) 648-2522



-----  
NAME: \_\_\_\_\_  
ADDRESS: \_\_\_\_\_  
CITY: \_\_\_\_\_ STATE: \_\_\_\_\_ ZIP: \_\_\_\_\_  
CLASS: BASIC \_\_\_\_\_ SPORTSMAN \_\_\_\_\_ ADVANCED \_\_\_\_\_ UNLIMITED \_\_\_\_\_  
TRANSMITTER CHANNEL NO. \_\_\_\_\_ AMA No. \_\_\_\_\_  
FCC CALL SIGN 50/53 Mhz \_\_\_\_\_ IMAC No. \_\_\_\_\_  
ENCLOSE \$7.00 per person.

# Hillsdale Lake Flying Site





**ITEMS FOR SALE**

**FOR SALE:** FUTABA 3-CHANNEL RADIO with battery and switch harness, 3 servos. This is a good solid radio but is not narrow band. \$50.00 takes it!

**FOR SALE:** .40-.60 size BIG STICK. Excellent Fun-Fly plane. Ready for radio and your engine. Flies Great! \$100.00.

**FOR SALE:** GREAT PLANES SPORSTER BIPE. Ready to go with Fox .50 engine. \$150.00 (less radio).

Contact Richard Ballard if interested in any of the above 3 items (843-8623).

-----  
CONTACT TOM PUCKETT ON THESE ITEMS (AND THE PICTURED ITEMS). 841-5889.

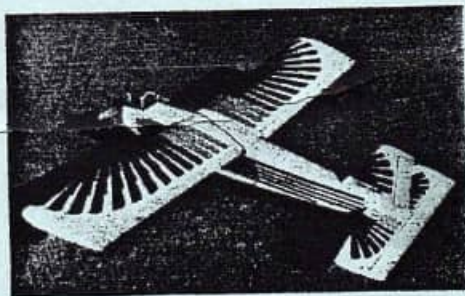
**FOR SALE:** SIG KOUGAR (built and covered) .40-.50 size. \$50.00.

AVIOMODELLI CESSNA 182 SKYLANE kit. \$160.00

HOBBY LOBBY FUNSTER 40 kit. \$40.00

SUPER HOTS .60 size kit. \$50.00

THERE WILL ALSO BE ASSORTED SIZES OF FUEL TANKS AT THE SEPTEMBER MEETING.



**APACHE**

Order #21878  
Wingspan: 50.25 in.  
Radio: 4 ch.  
Engine: .20-.29 2 cycle,  
40-.50 4 cycle

List: \$106.95

~~\$106.95~~  
**\$72.95**

\$35.00

Wingspan: 62 1/2"

**Fiesta**

Requires:  
.35-.60 Engine  
4 Channel Radio

The Fiesta features the durable, easy-building characteristics Scorpio kits are famous for, plus the potential for speed and aerobatics. It's built for quality, style, and action!

Stock Number	Description	Tower Price
ZZ9046	Fiesta/O.S. .40 SF . . .	\$219.90
SCOA1030	Scorpio Fiesta . . . . .	<del>209.95</del>

\$70.00

Requires:  
.35-.45 Engine  
3-4 Channel Radio

Wingspan: 62 1/2"

With its high-wing design and good low-speed stall characteristics, the Savana is a smooth, stable flier that comes largely pre-built. For looks, stability, and fun, fly the Savana.

Stock Number	Description	Tower Price
ZZ9047	Savana/O.S. .40 FP . . .	\$159.90
SCOA1040	Scorpio Savana . . . . .	<del>95.95</del>

\$70.00

No other airplane flies like the Senior Telemaster

HLA107 Hobby Lobby's Senior Telemaster . . . . . \$129.00  
95" wingspan, for 4 channels and .40 to .60 engines. Huge size and light wing loading make it slow and exceptionally easy to fly. Conventional balsa kit.

\$65.00

TOP FLITE PIPER J-3 CUB

Designed for engines in the .40-size range, the J-3 Cub has a wealth of features such as air outlines and the option of building 2 versions with a wingspan of 77-1/8" or a more aerobically clipped wing version with a 59" wingspan. A one-piece injection-molded cowling in Cub Yellow engine mount, die-cut windows and windshield parts, decals, scale hinged doors, shear bolt attachment, shaped hardwood struts, and pre-formed landing gear. With clearly marked die-cut pe-detailed instruction manual, and full-size plans, Top Flite has spared no detail to provide a complete kit. A 4-channel radio system is required.

TOPA1228	RC28 PIPER CUB J-3 . . . . .	145.95	\$99		
Accessories—RC28 Piper Cub J-3:					
1-AERO2005	Fuel Line . . . . .	1.95	1-DUB01180	Collars . . . . .	
1-SULO1038	55-c Fuel Tank . . . . .	2.85	1-WILO1135	Wheels 1 1/2" . . . . .	
1-DUB00890	Wheels 3 1/4" . . . . .	4.45	2	1-DUB01425	Fire Cable . . . . .
					Roll Covering . . . . .

\$60.00

SIG ASTRO-HOG

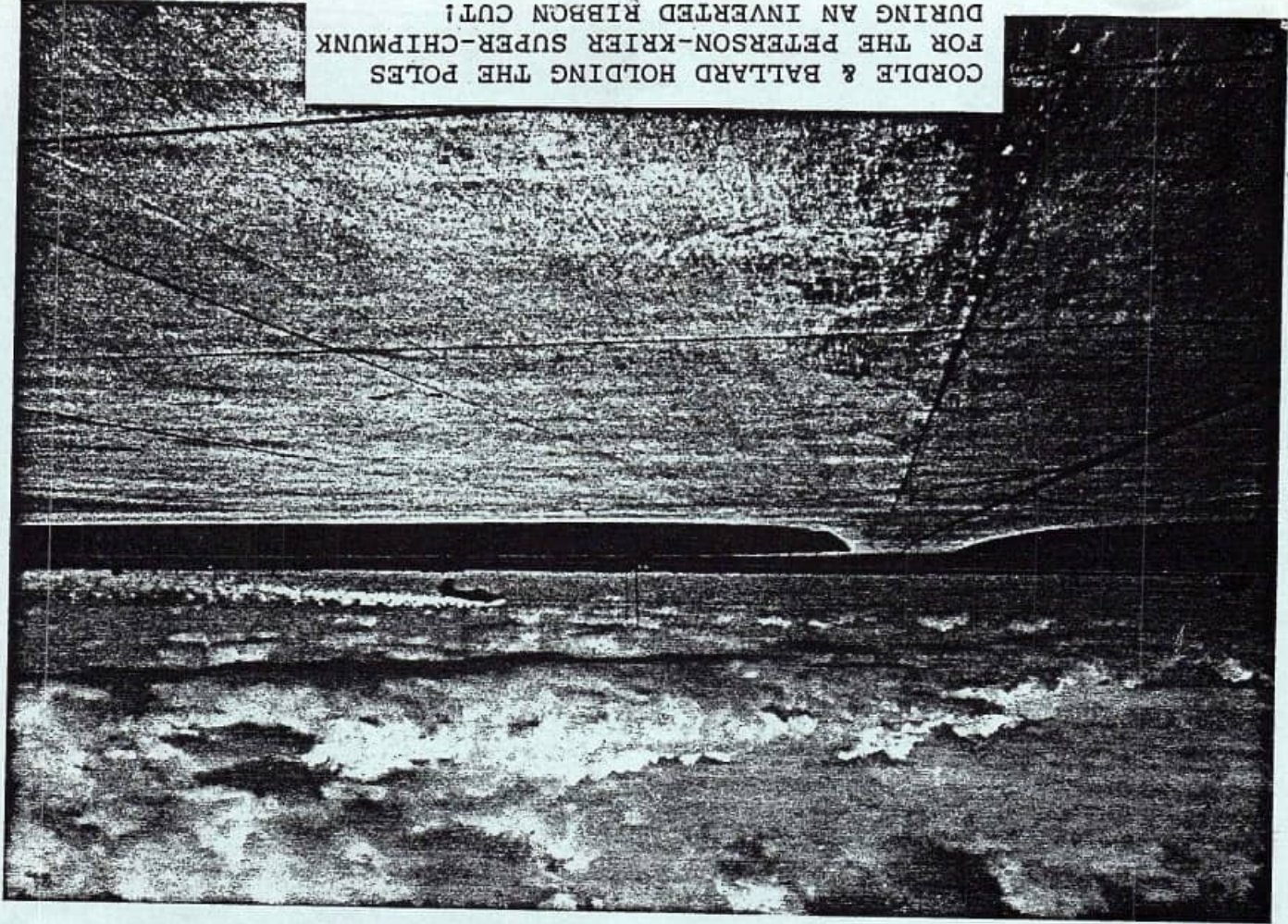
- Outstanding aerobatic performance.
- Top-quality balsa kit that's a real pleasure to fly!

Sig's Astro-Hog is an updated version of Fred Dunn's 1957 design, which was the first successful low wing, aerobatic R/C plane. Its thick semi-symmetrical airfoil, large wing area and light wing loading make the Astro-Hog a real workhorse and a pleasure to fly. The kit features top quality balsa and plywood parts, molded plastic headrest, formed wire landing gear, easy-to-install strip airfoils, aluminum engine mounts, hardware, and standard tricycle landing gear. Plans show optional taildragger gear. It has 824 square inches of wing area and 71" wingspan. The Astro-Hog requires a .45-.60 2-stroke or .60-.75 4-stroke size engine and a 4-channel radio.

SIGA1755	RC55 ASTRO-HOG . . . . .	95.95	\$22.00		
Accessories—Astro-Hog:					
1-AERO2005	Fuel Line . . . . .	1.95	1-DUB00885	Wheels 3" . . . . .	
1-SULO1406	R12 Fuel Tank . . . . .	2.95	1-DUB01185	Collars . . . . .	
1-DUB00880	Wheels 2 1/4" . . . . .	4.00	1-WILO2477	Pilot . . . . .	
					Roll Covering . . . . .

\$50.00

CORDE & BALLARD HOLDING THE POLES  
FOR THE PETERSON-KRIER SUPER-CHIPMUNK  
DURING AN INVERTED RIBBON CUT!



LAWRENCE, KS  
AM  
SEP 8,  
1990  
66087

