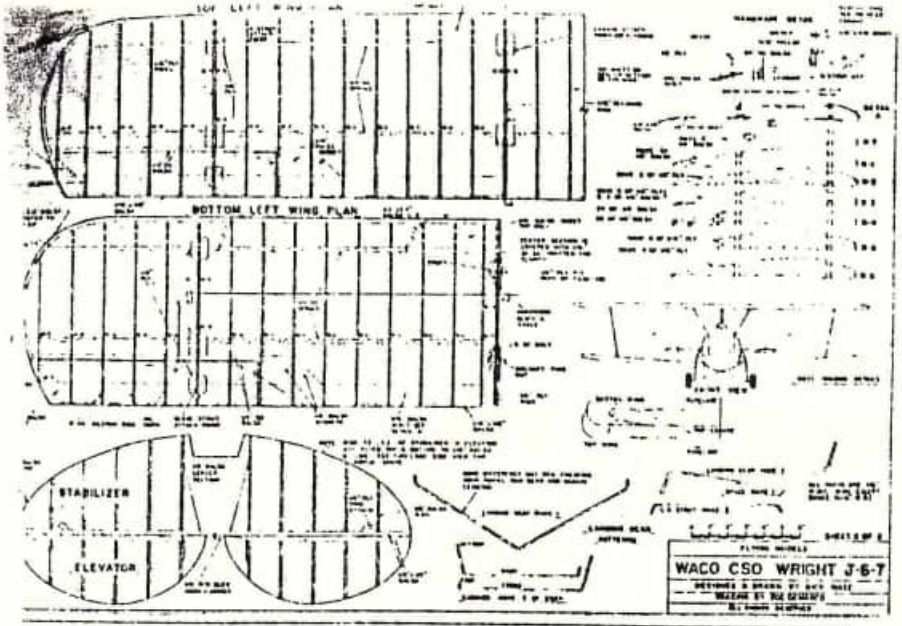

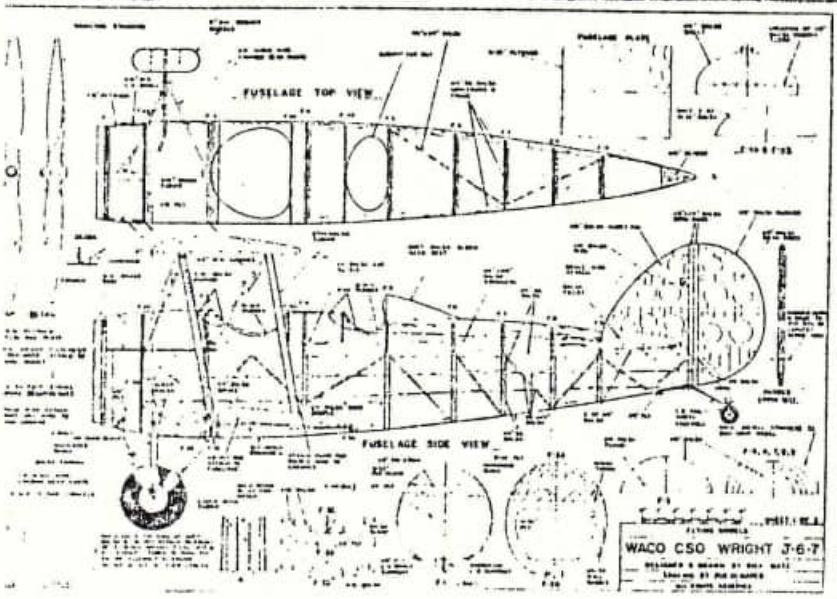

JAYHAWK MODEL MASTERS

January Newsletter

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December Meeting

It was sure good to see a better turnout. It really makes the meetings more interesting when more folks show up. Our next meeting is Jan. 16, same time, same place. Lets see 30 of you show this time.

Special thanks to Darrel Cordle for bringing the vidios for us to enjoy. A look at the Ida Grove show and the Blue Angels capped the night off nicely.

A questionaire was handed out to see what ideas folks had about events we've been flying at our Fun-Flys, and what events you would like to see flown. We had quite a discussion on trying to provide events for more beginning and intermediate pilots. We need everyones input on these things so let us know what you think.

Richard Ballard provided the info on the treas. and how we made out on our last FF. He also reminded everyone that 1988 Club dues should be taken care of as soon as possible.

REMINDER

You Must Be An AMA Member To Join!

Steve Snumate shared his new creation that he hopes to compete with this year. I hope Steve keeps us informed on its progress. I would really like to know just how much that airplane will carry.

Richard Ballards Fiesler Storch was again a hit at the meeting. An aerodynamically attractive airplane its not, but Richards attention to detail is impressive. Hes going to have a fine Scale looking airplane.

I had hoped to bring a partially built Osprey 2 to the Jan. 16th meeting. But because of a certain (unmentionable) company down Texas way who has failed to get the lumber I'll be needing to me. That wont be Possible this time around.

A Word Of Warning! The following frequecies were illegal to operate as of Dec.20th of last year. 72.080, 72.160, 72.240, 72.320, 72.400, 72.960, 75.640. According to Federal Law, it is illegal to operate on these channels now. Your AMA, insurance will not cover you if an accident occurs while your operating on one of the above frequecies. Food for thought.

****

Its Building Season

Our future Newsletters will be concentrating on building and set-up techniques for your information. Richard Ballard, builder perfecto, will be providing much of the info you'll be reading about. I suggest you take these articles to heart, and hang on to your Newsletters for later reference. They'll come in handy for you.

Dave

Jayhawk Model Masters Meeting

Jan 16

The best place to start is at the beginning. If you have a friend, thats been thinking about getting into R/c, this would be a good meeting for them to attend. We'll be going over safety, which is important to all of us. Try to get them to comewith you.

The meeting will be held again at the Gaslight Village Clubhouse at 7:00 PM. Please plan to attend.

****

THE ULTIMATE FLY-AWAY !!

I caught the tail-end of a TV news story the other day concerning every pilots nightmare. It seems that this elderly gentleman went out to fly his (Full-Scale) J-3 Cub. Being alone, he turned on the mag switchs, pulled out the throttle, and proceeded to hand-prop the J-3. On the first pull, the little 65 H.P. flat-four fired up and commenced to chase the old gent across the tarmac! Luckly, the old fellow was able to jump out of the way as the J-3 took to the air and flew off in an easterly direction. The last he saw of it was a tiny speck in the sky as it climbed out, wings level. At last report, an air search was underway, but the J-3 Cub had not been found!! RLB

FUTABA CHARGER TIP

I stole this tip from Jim Kithen's column in the Feb. 1988 R/C Report newspaper. (Still the best deal in R/C !!!) If after plugging in your Futaba charger to both the transmitter and flight pack, you still have doubts about the green light being the "right color green" then try this.

Pick up the charger and hold it up in front of your face! Now shake it back and forth vigorously! What you will see now is both a red and a green light if both packs are properly connected. O.K.? Now unplug either the plane or transmitter and shake again! only a red, or a green light but not both! Amazing isn't it?

60 khz. electricity is faster then the eye, but only if the eye has time to focus!! R.L.B.

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Membership Renewal

Please renew as soon as possible. Send your forms to; Richard Ballard, 132 Florida, Lawrence KS 66044. Or better yet, bring them to the meeting Jan 16th. Remember; You must be a member of AMA now.

****

Open Member..15.00 Family Membership..22.50

Name.....AMA Number.....

Address.....City.....Zip.....

Phone #.....Total Amount.....Signed.....

We need to get this taken care of real soon. Thank you for cooperating.

WHAT MAKES A GOOD FUN-FLY AIRPLANE?

If you ask that question of ten pilots, you could get ten different answers. One thing is sure though, and that is the aircraft should be (must be) very forgiving in nature and built to take hard knocks. Most any trainer would be highly competitive in most events. All of the "Stick" type planes such as the MIDWEST SWEETSTICK, MIDDLESTICK, AND LIL'STICK, or the GREAT PLANES BIG STICKS, etc. are good. The world is full of UGLY STICK type airplane kits and they all are really excellent fun-fly planes.

A new plane on the scene this year is the OFF THE GROUND MODELS, BLUE MAX II as seen at our fall fun-fly being very skillfully piloted by Dennis Shepard. This plane just has to be seen in action before you can believe it! Others to consider would be the PICA RAPIER, MIDWEST HOTS and SUPER HOTS, COVERITE BLACK BARON SPECIAL and PEASHOOTER, and last but not least, BALSA USA's SUPER STICK.

What do all these planes have in common? All have a big thick wing and light wing loading which allows them to fly at very slow speed without stalling. Most are also capable of being "horsed around" at high or low speed without fear of tip stall or accelerated stall bringing you down. I guess you could say they have a "wide envelope" in Chuck Yeager language! They do have the "Right Stuff" for fun-flys! They also have extra strength built in to withstand those occasional trips into the weeds!

A high Power-To-Weight Ratio is good. Extra power can cut seconds off of some events. It can also get you out of trouble (or into trouble) in a hurry when only power will do the job. It must be reliable power however, and not a "fussy" engine/pipe combo that won't idle and accelerate cleanly in a split second. One school of thought leans toward a hot engine such as the ROSSI .40 or something similar. Another way to go is to put a mild .40 size engine on a .20 size plane. Dave Plamann told me his O.S. FP-40 was doing a fine job on his .20 BIG STICK untill he got it "Wired"!! (Sorry Dave!) If you do decide to go this route, do a good job of building and check into beefing up any area that might need extra strength! We are talking Major Strain on the wing and tail sections, and firewall here!!

Another tip you might want to try is to run a larger diameter, lower pitch prop. An 11-5 insted of a 10-6 on a real strong .40 will give you close to a pound more thrust! Thrust is what you need to get up fast. The bigger prop also allows you to slow down a little more when you need too, and will give a more reliable idle to boot. (Not a bad deal for free!)

What else can you do to increase your luck at a fun-fly? If there is a "Secret Word" it has to be PREPARATION. You can't possibly hope to win, even in a "Luck" type event, if your engine won't run or your battery pack is dead! Take care of all the little details and fix all that needs fixing at home. Remember Murphy's Law? It works overtime at a fun-fly! Anything that is loose will fall off! Anything that is bent will break! Anything that wouldn't start last weekend, won't start at the fun-fly either! The list could go on, but you get the picture. PREPARATION IS ONE OF THE KEYS TO WINNING, or even being able to fly! Possibly the most important key!

By now, you may be thinking that none of this applies to you anyway because you can't fly as well as the "Hot Shot Pilots". It might suprise you to know that the "Hot Shot Pilots" aren't that much better then you are, but the planes they fly are better for fun-fly's then yours! Until you fly something like a BIG STICK or BLUE MAX II, or a RAPIER awhile, you won't know how good you really are! Try it, and I'll see you at the fun-fly next spring!

RLB

DEFINITIONS TO PONDER
(WING LOADING)

If you read model magazines, or adds, or even kit box's, 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 Gental 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 M.P.H. or less. At 30 oz./ft., you better plan on 30-40 M.P.H. to maintain flying speed! How do you figure it out? well, here are some things you need to know first: * Wing area: Usually given in sq./in. (144 sq/.in.=1 sq./ft.) * Model weight: Usually given in pounds (lb.) or ounces (oz.) (16 oz. per lb.)

Lets figure out the wing loading on an average .40 size sport design.

* The plane has 600 sq./in. of wing area.
* It weighs 6 lbs. (or 6X16oz.=96oz.)
* Now divide 600 sq./in. by 144 = 4.166 sq./ft.
* 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 lets try that new F-23 Tiger Lizard you just saw in the Model Glomer magazine. You know the one! It said the plane had:

* Span=44" inch's
* Cord=3" inch's
* Weight=17 lbs
* Power=Rossi .90 Ducted Fan on 70% Nitro

How will it fly? Well, the artical said it was a pussy cat. Lets figure it out!

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

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

* divide the weight in oz.= 272
* By the area in sq./ft. = .916
* 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 flys!

RLB

HOW TOO: SETTING AILERON DIFFERIENTIAL

Almost any airplane can be made to perform better with a few little "tricks' in set-up and ajustment. One area often overlooked in plans and instructions is aileron differential. What is it? Simply stated, it means that the "up" aileron goe's UP more then the "down" aileron goe's DOWN. This is necessary because the "down" aileron create's more drag. With-out getting into the reason for this, suffice it to say that it is true and can cause all kinds of strange control problems. In addition, once you fully understand all of the ways you can put in differential with control hook-ups, you can avoid putting differential in other controls that don't need it.

Some of the problems indicating the need for differential are:

1. Rolls are not straight, but rather more of a "barrel roll" when viewed from the front or rear of the airplane.
2. It is necessary to use both aileron AND RUDDER to make good turns.
3. The aircraft yaw's to the left with applied right aileron. In extreme case's the aircraft may actually turn left with right aileron input and right with left input!

Now that you know what to look for, how do you correct it? There are actually 6 different ways you can arrive at setting proper aileron differential. Some are very easy to do, while others have to be built into the aircraft during construction. Lets take a look at them.

A. OFF-SET HINGE LOCATION: Most commonly seen on "Scale" and "Giant scale" type aircraft. Very effective but seldom used in normal sport type aircraft construction. This gives CONTROL SURFACE AREA DIFFERENTIAL rather then MOVEMENT DIFFERENTIAL as all the other set-ups will do. (See drawing A)

B. RADIO WITH END-POINT AJUSTMENTS: This is also very effective if you happen to have a $500.00 radio system! This is one reason most championship level pattern flyers seem to use "Top of the line" radios. With end point ajustments, it is possible to "dial in" any amount of control travel to get the desired differential movement. This type of radio system is not necessary or even desirable for the average sport flyer.

C. OFF-SET BELL-CRANKS: Some designs with "barn door" type ailerons use push-rod/Bell-crank linkage to control the ailerons. Often, this is used with (A) Off-set hinge locations, to arrive at the proper differential. Again, not often found on normal "sport" designs. Aircraft of this design usually show the correct Bell-crank set-up on the plans or instructions so we won't try to draw it!

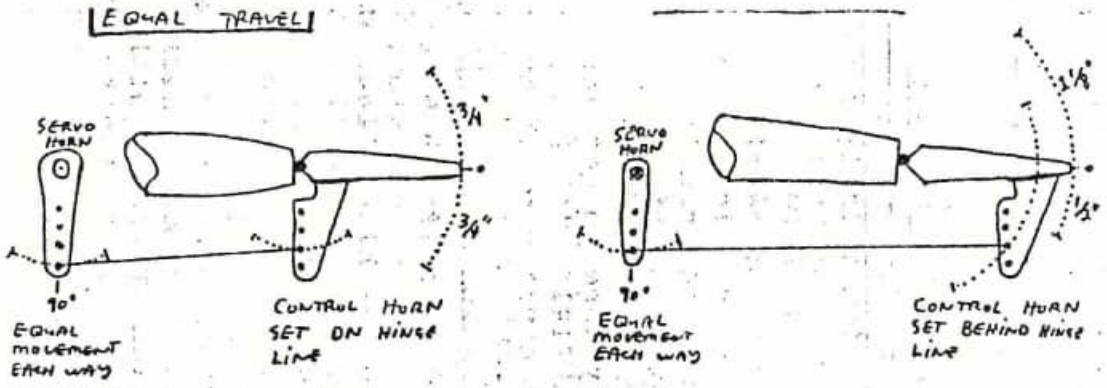
D. OFF-SET TORQUE RODS: Easily done when building. Insted of setting up the torque rod arms at 90 degree's to the ailerons, a forward bend (low wing) or rearward bend (high wing) is put in the torque rod arms. This results in the desired aileron movement (More up then down) with an equal amount of servo travel from center. (See drawing D)

E. OFF-SET SERVO HORN: For most set-ups, this is easily done to get more (or less) differential movement. It can even be changed at the field if necessary. If you have a plane with-out differential, you can often put some in by just changing servo horns. (See Drawing E)

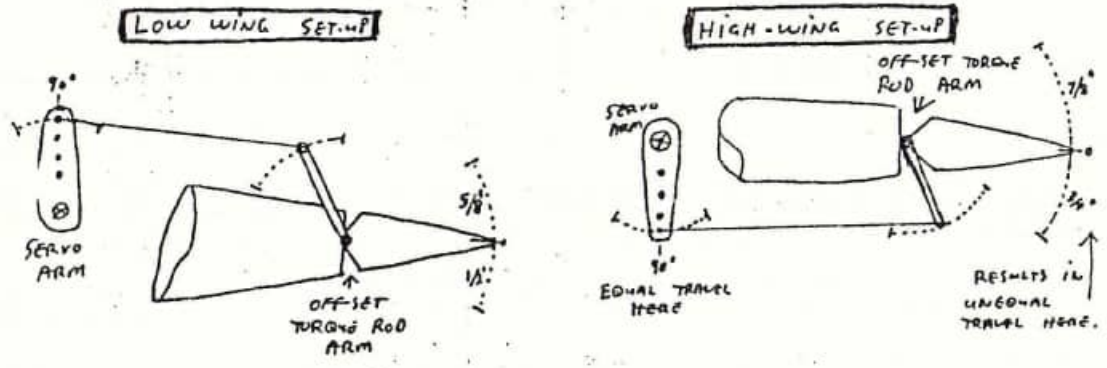
F. OFF-SET CONTROL HORN: By setting the control horn behind the hinge line, you gain effective differential movement. The same geometry applies however to RUDDERS AND ELIVATORS. If you DON'T WANT differential rudder and elivator, be sure and set the control horn with the holes exactly over the hinge line. (See Drawing F)

While we are talking about setting differential, it is good to remember the Servo horn "trick". It also does the same thing on other control functions. Any time a Servo horn is set off-center when the Servo is at "center" or "neutral", you have differential travel on the affected control. If you are having problems getting equal throttle travel, steering, elivator, or rudder movement, check the Servo horn. It should be set 90 degree's from the direction of travel with the Servo at mid-point or center, on all controls except aileron. If it isn't, you have set up differential travel on throttle, rudder, or elivator. This is not good! (See Drawing G&H)

FLY SAFE! RLB



OFF-SET CONTROL HORN F.



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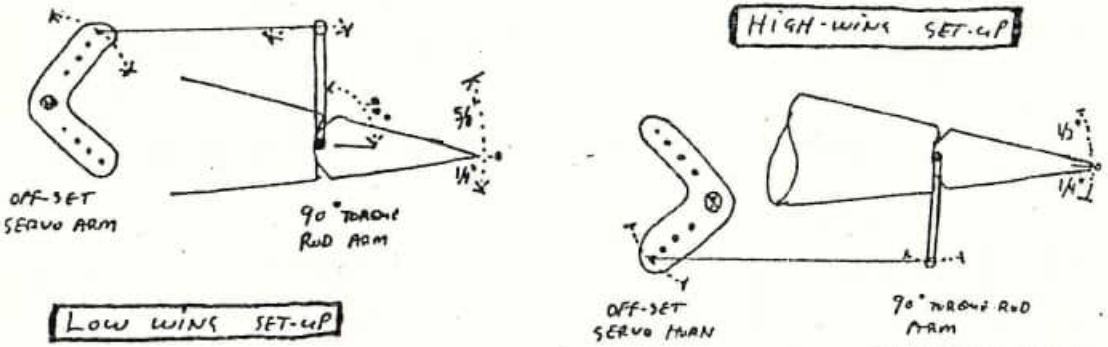
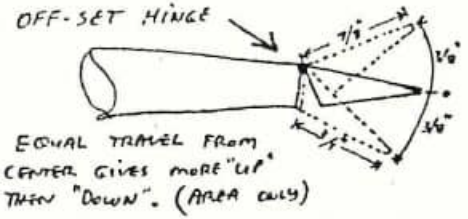
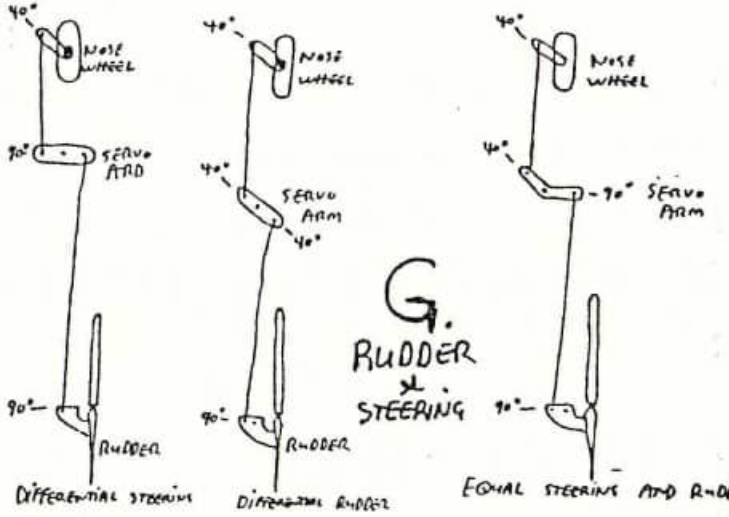


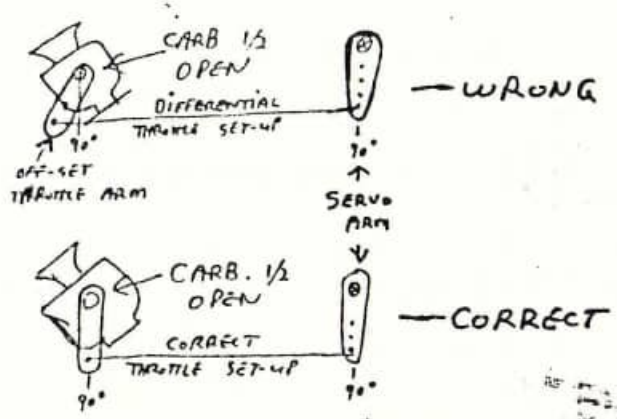
OFF-SET SERVO HORN E.

A.



OFF-SET HINGE LINE





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Kansas City Radio Control

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AND
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PARKING FOR 500 CARS

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BLUE SPRINGS CIVIC CENTER 1/2 MILE SOUTH OF I-70 BETWEEN WOODS CHAPEL ROAD AND HWY.7 BLUE SPRINGS MO.

TIME

DOORS OPEN AT 7:30 A.M.

SHOP 'N SWAP 8:00-11:00

AUCTION 11:30-CLOSING

TERMS

1. 10% DONATION ON ALL SALES FROM SHOP 'N SHOP, AUCTION, OR SIDE DEALS TO KCRC FOR FIELD IMPROVEMENTS.
2. SELLER CAN REFUSE LAST BID FOR ANY REASON.
3. NO SIDE DEALS AFTER THE AUCTION BEGINS PLEASE. IF NO SALE OR LAST BID REFUSED, SELLER IS WELCOME TO MAKE ANY DEAL WITH ANYONE.
4. SELLERS, PLEASE PUT YOUR NAME ON EACH ITEM.
5. PLEASE COMPLETE ALL PURCHASE TRANSACTIONS IF YOU HAVE THE WINNING BID. IF YOUR NOT SATISFIED FOR ANY REASON, WE'LL BE HAPPY TO SELL IT FOR YOU.
6. SECURITY WAS NOT A PROBLEM AT LAST YEARS AUCTION, BUT THE SELLER IS STILL RESPONSIBLE FOR HIS OWN MERCHANDISE.

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ADMISSION : ONE BUCK
$ 1.00

CHILDREN UNDER 12 FREE
FAMILY, MAXIMUM $ 2.00

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SOFT DRINKS, ETC.

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(816) 524 7158

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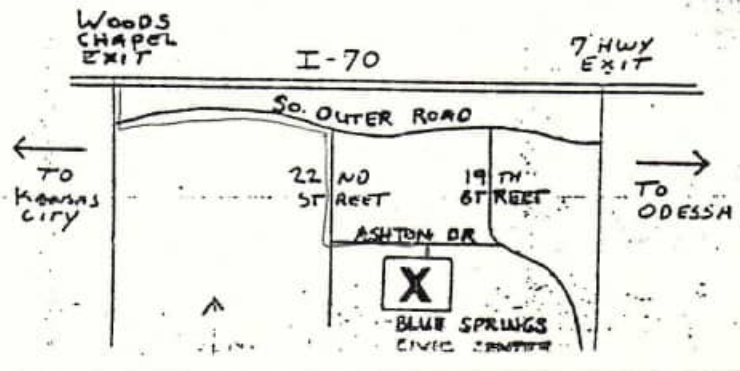
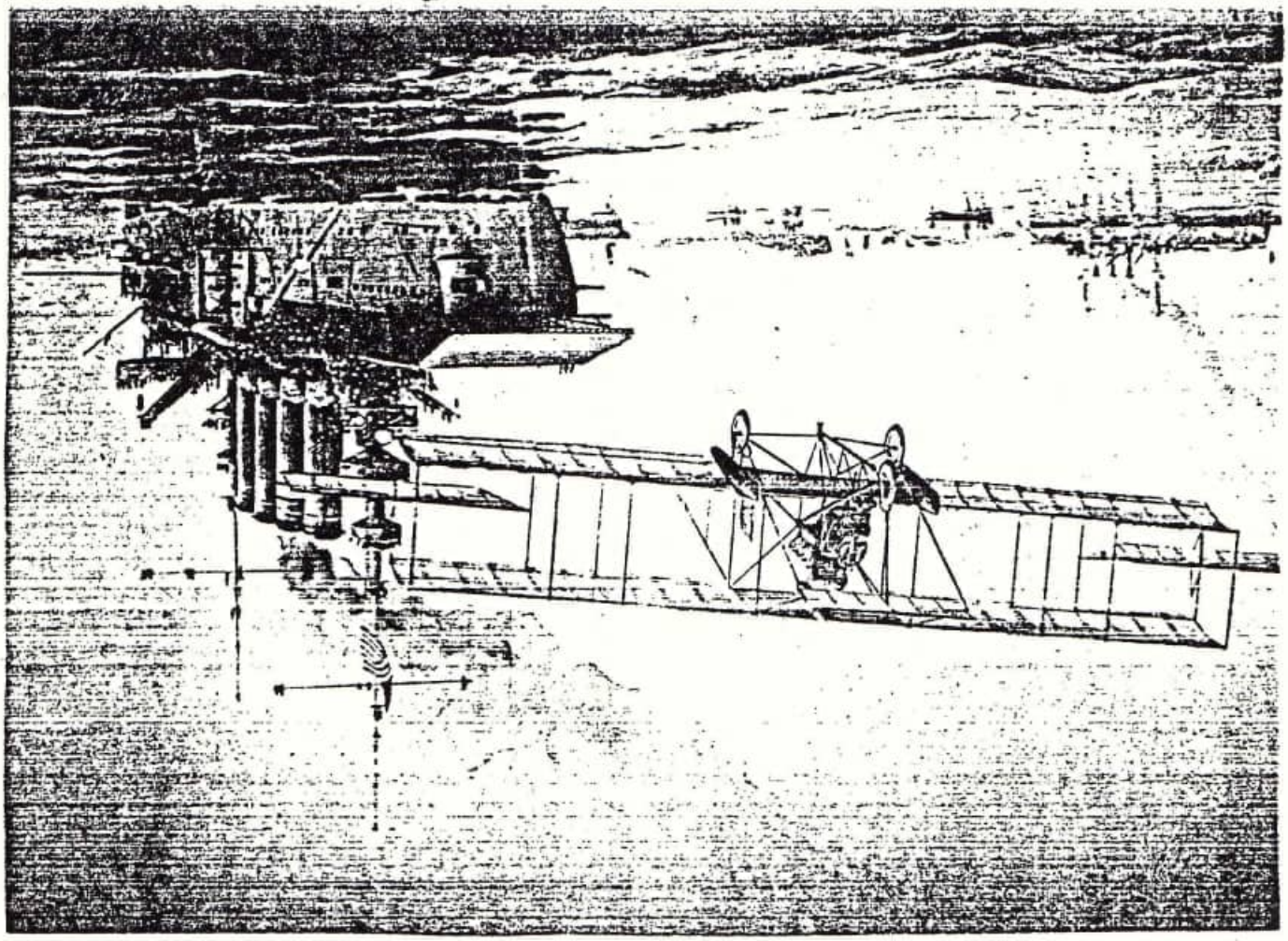
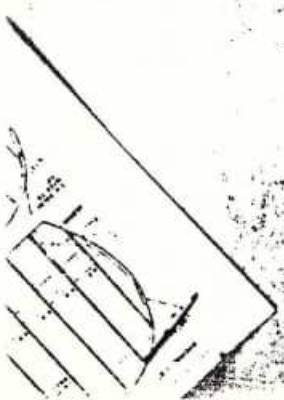
EVERYONE WELCOME





JAYHAWK MODELMASTERS
132 FLORIDA
LAWRENCE KS
66044



FEB 20
MAR. 19
APRIL 16
MAY. 21
JUNE 18
JULY. 16
AUG. 20
SEPT. 17
OCT. 15
NOV. 19
DEC. 17

MEETING DATES

Jawhawk Model Masters

Field Rules

1. No alcoholic beverages.

2. A. Flying over the pits, or spectator areas is prohibited.
   B. Flying behind the pits or spectator areas is prohibited.
   C. Flying south of the road, or over the parking area is prohibited.

3. A. Under no circumstances should you switch on your transmitter until you have a frequency pin.
   B. Maintain a minimum of 25 ft between transmitters. Standing on a designated flying position (Block) will assure this.

4. Low altitude, high speed passes down the runway are prohibited.

5. All transmitters must be on authorized frequency for aircraft use only.

6. Beginning pilots should be assisted by an instructor until able to Take Off and Land with good control.

7. Support equipment and aircraft (while not flying) must be placed in the pit area.

These rules are for everyone. Exceptions will no dought be made for beginning pilots, or problemed airplanes. The following rules are suggestions but no less important. Please read them carefully.

1. Be courteous, Dont use a frequency for extended periods. Others may be waiting to use it.
2. A crowded pit is dangerous. All flyers have the responsibility for helping keep spectators behind the pit area.
3. Communicate with fellow pilots. The terms (Dead Stick) & (Coming In) should be heard more often.
4. Aircraft on approach for landing have priority. Use the same runway, and taxi as far away as possible from flyers on the ground to avoid freq. problems.
5. Maintain equipment properly. Doublecheck new radio installations. Check control throw & dirrection of travel, (BEFORE TAKEOFF) especially on ailerons.
6. Keep runway clear. Return to designated area for flyers immediately after takeoff.
7. Avoid flying over agricultural workers, vehicles, or mowers.
8. Children are not to be left unattended.
9. Cautious use of smoking materials should be observed.
10. Keep area clean by picking up your own trash.
11. Observe extra caution when starting engines. Keep bystanders outside prop arch. Watch prop wash, and adjust needle valve from behind airplane.
12. Turn transmitter on before receiver--Turn receiver off before transmitter.
13. The farther away you fly, the higher you need to be.
14. Use common sense at all times.

MEMBERSHIP LIST

(HELP LIST)
10-1-87

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