

JAYHAWK MODEL MASTERS NEWSLETTER

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A . M . A . CHARTER #2013

ISSUE DATE: July 14 1990

NEXT MEETING: July 21, 1990; DAYS INN MOTEL; 8:30 a.m.

MEETING MINUTES

June 16, 1990

Richard called the meeting to order. Door prize was won by Jerry Lee.

The Fun-Fly was discussed. Bill Elkins made a motion to change the date to July 1, because of the inclement weather. The vote passed.

Richard reported \$764.71 in the treasury.

Bob Lockwood and Dennis Shephard are again members of the club.

Two airplanes at the meeting were Richard Ballard's 'Zero' and Bill Elkins' 'Super Sportster'. The meeting was adjourned.

July's door prize will be an Ace ESV Meter.

The Fun-Fly Committee wishes to thank Gary Leonard of Flight-Craft and Bud Burns for donating prizes. Gary donated a Flight-Craft 'Solo', and two field boxes. Bud donated six gallons of fuel. Thanks guys!

SPRING FUN-FLY, JULY 1, 1990

EVENT WINNERS

BOMB DROP

1. Chapman, 19'
2. Ballard, 26'
3. Puckett, 48'6"

LIMBO

1. *Puckett, 4-4-4
 2. Chapman, 4-4-4
 3. Plamann, 3-3-0
- *won coin toss

BALL/BUST

1. Ballard, 1 broke & 1 down
2. Puckett, 1-0-0
3. Plamann, 0-0-1

DEAD STICK LANDING

1. Chapman, 6'7"
2. Plamann, 6'8 1/2"
3. Ballard, 21'4"

3 LOOPS & ROLLS (TIN MAN)

1. Plamann, 38:13 sec.
2. Ballard, 44:03 sec.
3. Bennett, 53:23 sec.

NUT RACE

1. Bennett, 23:13 sec.
2. Ballard, 31:21 sec.
3. Puckett, 36:10 sec.

OVERALL WINNERS WERE:

1. Ballard, 10 points
2. Chapman, 8 points
3. Puckett, 7 points
4. Plamann, 6 points
5. Bennett, 4 points

OVERALL PRIZE WINNERS RECEIVED:

1. Airbrush set from Dee & Mee Hobbies, Topeka, KS.
2. Flight-Craft 'Solo' Kit from Flight-Craft, Baldwin, KS
3. Field General Flight Box from Flight-Craft, Baldwin, KS
4. Pit Pal Flight Box from Flight-Craft, Baldwin, KS
5. Booby Prize from a garage sale!
(WAY TO GO BRETT!)

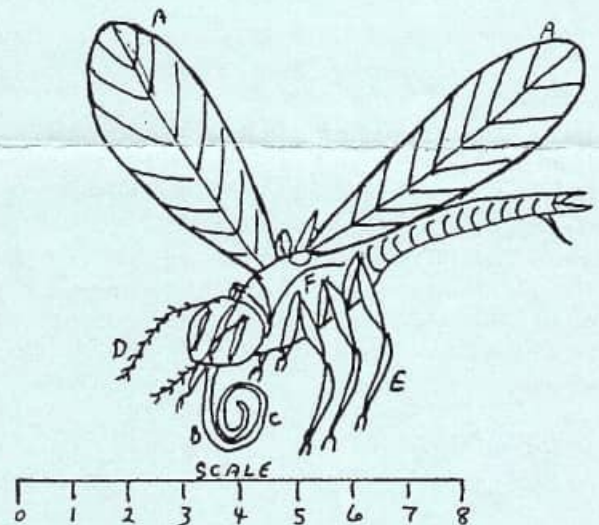
P.S. Next year, let's have our "Spring" Fun-Fly in the Spring! O.K.? O.K.!

**CLINTON MOSQUITOES IDENTIFIED.
BY EXPERT**

Recent concern over the mosquito problem has prompted me to ask for help in identifying the most prevalent kinds of mosquitoes we are likely to find at the flying field. I have asked the noted AERONAUTICAL ENTOMOLOGIST, Dr. Billy Bob Totipalmate to be our guest columnist

this month. If you want expert advice, ask an expert, I always say!

Following a FIELD SURVEY and TRAPPING SESSION, Dr. Bob has identified two primary types of mosquitoes that call the Clinton R/C field home. In Billy Bob's own words, we have "BIG MOTHERS" and "LITTLE SUCKERS"! Which is worse? You might ask! Dr. Billy Bob said, "It don't make no never-mind, cause they always fly together anyway! If you ever notice, they always attack in waves. The BIG MOTHERS hit your ankles, while the LITTLE SUCKERS come out of the sun and go for your neck and ears. There is no defense against this kind of attack!" Dr. Billy Bob said the best thing you can do is know your enemy, and with that, produced these drawings on the back of a 'Buckey's brown bag'.

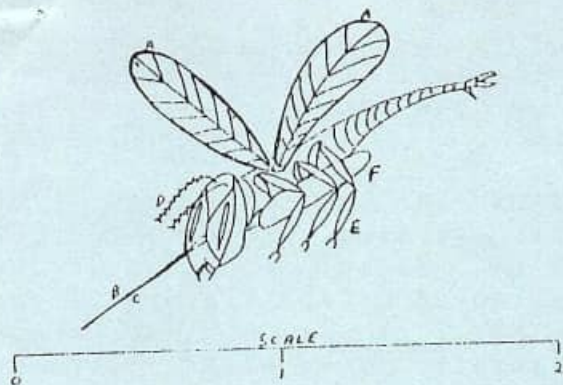


Mosquito Drainyoudri Clintoni
(BIG MOTHER)

COLOR = "Stealth" Green

SOUND = Almost like a Quadra 35.

BITE = Like getting stabbed with a dull X-ACTO Knife!



Mosquiti Makeyoucri Clintoni
(LITTLE SUCKER)

COLOR = "Night Fighter" Black

SOUND = Like a Rossi .40 in a long,
shallow, dive!

BITE = Not unlike a Pit Viper!

COMMON FEATURES

- A. Variable pitch prop
- B. Offensive armament
- C. Re-fueling probe
- D. Heat-seeking sensor
- E. Retract gear
- F. Chemical weapons stores

We would like to thank Dr. Totipal-mate for his help in identifying our enemy and leave you with his final remark. Billy said, "These are Federal Mosquitoes because they live and breed on Federal land. I suggest your club apply for FEDERAL AID in dealing with the problem! A few million dollars in aid could no doubt wipe them out until next year!"

Thank you Dr. Bob, for your expert advice! Applying for FEDERAL AID sounds like an exciting CLUB PROJECT!

FLY SAFE! RLB

HOT AIR/COLD AIR

After our 100-degree plus Fun-Fly, it is time to think about changes

in aircraft performance that comes with the heat of summer. You may already have noticed that your engine doesn't sound as crisp as it did back in January when you flew on a 35-degree day. If you had your engine set perfectly for that 35-degree temperature, chances are it is now too rich to run correctly when you fly with the temperature in the 90-100 degree range. Why?

The simplest way to explain it is this. COLD AIR IS THICKER THAN HOT AIR. An engine runs best on a given air:fuel ratio. If that ratio happens to be 20 parts air to 1 part fuel, the ratio would be 20:1. Your carb needle valve adjusts how much fuel can be sucked into the engine with each intake cycle. If your carb is adjusted perfectly to give this air:fuel ratio at 35 degrees, with "THICK" cold air, then it stands to reason it cannot be correct to allow the same amount of fuel to mix with "THIN" hot air at 100 degrees!

"What can I do?," you say! Well, you have already done most of the necessary adjustments when you set the high speed needle valve each time you go out to fly! The reason you can't set the needle valve once and forget it is this: AIR DENSITY CHANGES FROM DAY TO DAY WITH THE AIR TEMPERATURE AND BAROMETRIC PRESSURE. Your engine needs the same air:fuel ratio every time you start it. If you don't adjust the carb (fuel) to match the existing air density (thickness) it can't run at its best.

"O.K.," you say! "I adjusted the needle valve, but it still don't run like it did last winter! Not only that, but it don't start good either!" You are correct on this point! We did adjust the HIGH SPEED NEEDLE VALVE, but we also have to remember that the IDLE JET on your carb is there to allow you to adjust for changing air density

as well! You have to adjust it too! REMEMBER! AS THE SEASONS CHANGE, SO MUST YOUR IDLE JET!

Think of it this way. In the winter, you have to pump the foot feed and choke your car to get it to start. It takes more gas (fuel) to make the necessary air:fuel ratio when the temperature is zero than it will take when the temperature is 100 in July! All you are really doing is trying to maintain the same air:fuel ratio your engine needs to run correctly. As temperatures warm up, your engine needs less fuel to mix with the warmer air, to maintain the same air:fuel ratio!

ALWAYS SET HIGH SPEED NEEDLE WITH THROTTLE WIDE OPEN.

HIGH SPEED SETTING = ENGINE IS RUNNING IN 2-CYCLE BUT 4-CYCLES ABOUT EVERY 1/2 SECOND.

LOW SPEED SETTING = IDLES WELL AND HAS INSTANT RESPONSE TO FULL THROTTLE.

AIRCRAFT HELD NOSE UP = ENGINE BREAKS INTO CLEAN 2-CYCLE SOUND AND WILL HOLD THIS SETTING.

This should be the way your engine runs before you risk flying it. If it isn't running correctly, don't risk flying it!

Speaking of hot air, did you notice how thin the air was at last month's club meeting?

FLY SAFE! RLB

HOW TOO: KEEP YOUR MUFFLER ON!

This spring has brought on a rash of loose, lost, and leaking mufflers. Why? I don't have a clue, but I have heard of more muffler problems this spring than ever before. Let's take a look at some

of the things that contribute to lost mufflers and then figure out what we can do to correct the problem.

VIBRATION: An out of balance prop creates terrific vibration! It would not be at all unusual to measure 80-90 G load factors in the engine and tail area of an average R/C aircraft. Even with a perfectly balanced prop, you still get high vibration from the single cylinder engines we use.

Another thing to keep an eye on is the engine mount bolts and the bolts holding the mount to the firewall. Any looseness in the engine mount system only adds to the problem of holding a muffler on.

MISMATCHED MOUNTING POINTS: Check your engine's exhaust outlet and the muffler flange with a straight-edge. Both must be perfectly flat and true to insure a good seal.

Also, a rounded or warped surface will allow the muffler to rock around under vibration and you not be able to keep the mounting bolts tight no matter how hard you try. Use a fine file or emory cloth on a flat surface to dress down the mating surfaces to a perfectly flat joint fit.

WRONG SCREWS: If you loose a muffler screw, be sure you replace it with one that is the correct length. I have seen people use screws that are too short. Stripped or pulled-out case threads are the sad result. I have also seen screws that are too long used. They will bottom out before the muffler is tight and the mating surfaces will be destroyed in one flight or so from vibration.

USE PROPER LOCK WASHERS: Always use Spring-type lock washers on muffler mounting bolts. The spring

action makes up for the difference in expansion rates of the aluminum case/muffler and steel screws. Constant tension is provided by the lock washers during the heating/cooling cycles the engine goes through each time it is run.

I prefer to replace slotted-head mounting screws provided on many engines with socket-head screws. I use a T-handle allen wrench to tighten them down and really torque them down tight!

THREAD LOCKING COMPOUND: I have never found it necessary to use Lock-Tite or High Temp Silicone Seal on muffler bolts if all the preceding points are used. If you do find it necessary to use a thread locking compound, remember that the bolts and holes must be completely de-greased with solvent to remove all traces of engine oil from the threads. Otherwise you are wasting your time and your thread locking compound! Always allow at least 24 hours for cure before using the engine again.

LOSS OF REAR HALF OF MUFFLER

O.S. ENGINES: O.S. employs a through-bolt to hold many of their mufflers together. If this bolt is tightened really tight, the head will pull off sooner or later resulting in loss of the rear half of the muffler. The sure cure is to throw away the soft O.S. bolt and replace it with a length of 4-40 Stainless Steel all-thread control rod. Lock washers and double nuts on each end complete the job. You can also peen the ends slightly with a small hammer to insure the nuts never come off until you want them to.

FOX ENGINES: The new style Fox mufflers are held together by tiny split roll-pins. Most of the time they work pretty well, but after you take the muffler apart and put

it back together (don't ask why anyone would do that!) you may have problems.

The cure is to drill three small holes around the joint and insert #2 sheet metal screws. These screws should be a good tight fit and tap their own holes when you put them in. They won't come out again, and the muffler won't fall apart.

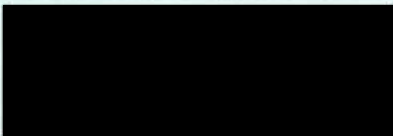
OLD SUPER-TIGER: Some older Super-Tiger mufflers were held together with little tabs and screws around the joint. These screws were prone to work loose resulting in loss of the rear half of the muffler. The cure for this one is a thorough de-greasing with solvent, lock washers, lock-tite, and a Big Screw-Driver!

NEW SUPER-TIGER: The new style Super-Tiger mufflers are press-fit together with Epoxy joint sealer or something. Whatever the method, once it fails, you need to buy a new muffler! Sheet metal screws around the joint (like with the Fox muffler) cure the problem forever.

ROSSI: Rossi makes one of the best engines in the world and without a doubt, the worst (and I use the term loosely) mufflers! Rossi mufflers are put together with Pop-Rivits! I can almost guarantee the muffler will fall apart before you get the engine broke in. The fix is a good welder with a Heliarc machine. Once this is done, you won't lose any parts, but it still won't be a muffler either!

OTHER ENGINES: You will find one of the methods mentioned above used to assemble almost any other brand of muffler you may have. Pick the cure that fits and give it a try. You really can't hurt anything, and may save yourself \$20.00 or so for a new muffler if it falls apart! Give it a try.

FLY SAFE RLB



GENERAL DYNAMICS F-16A FIGHTING FALCON (1978)

Originally designed as a smaller, cheaper fighter to supplement the F-15, the Falcon quickly became famous for its superb handling. It has a top speed of 1,300 mph and carries a 20-mm. cannon and Sidewinder missiles. By 1983, eight countries were operating the plane; this one belongs to the USAF's 388th Tactical Fighter Wing.