

JAYHAWK MODEL MASTERS NEWSLETTER

AMA Club # 2013

November, 2016

Gary Webber, Editor

November 19 Meeting

Smith Center at Brandon Woods
4730 Brandon Woods Terrace
Lawrence, KS

8:00 AM – Breakfast

9:00 AM – Business Meeting

Schedule of Events

- November 19, JMM Monthly Meeting, nomination of 2017 officers
- December 17, JMM Monthly Meeting, election of officers

[Facebook:](#)

<https://www.facebook.com/groups/132391945409/>

[Web Site:](#)

<http://www.jayhawkmodelmasters.com/index.html>

2016 Officers

President	Gary Rauckman
Vice President	Kyle Walker
Secretary/Treasurer	Rob Dewhirst
Field Safety	Scott Borton
Board 3yr	Jim Morris
Board 2yr	Phil Abbadessa
Board 1yr	Mike Weinsaft
Newsletter Editor	Gary Webber

News-wrap

Raffle Plane #1

You may remember that Nate E. won the October raffle plane, a really nice [CMP Yak 54 ARF 140 - 71.5" Nitro Gas ARF](#). The ARF went to Nate's son Steve (in photo below), and he wasted no time is assembling it. Steve chose to convert to electric power, no easy ask in a plane designed for nitro/gas.



Steve ready to maiden

Steve chose a .90 outrunner with a Castle Creations Phoenix Edge 100 Amp ESC,

and powered it with 2 4S/4000 mAh lipo batteries for a nominal voltage of 29.6 volts. Unfortunately, the fuel design necessitated a pound of lead in the nose.

Steve and Nate maiden this beauty on the morning of November 1, with excellent conditions; warm, calm, and sunny. Both were pleased with its flight characteristics, but Steve would like just a little more thrust, so he plans to upgrade to a 1.20 motor and reduce the amount of weight in the nose. Look for this plane at Show & Tell next meeting! Great job Nate and Steve!

Raffle Plane #2

A second raffle plane maiden a few days later. Your editor was able to talk Mike Weinsaft into selling the [Goldwing ARF Sukhoi SU-26 26CC 70"ARF](#) he won at the September meeting. I also went with an electric conversion, using a Rimfire 1.20 outrunner, Castle Talon 90 ESC, and a 6S/5000mAh lipo recycled from a crashed Phoenix Edge 540. Another fuel design, this plane required 7 oz. of weight to balance at the factory specified center of gravity. The plane weighed in at 10.2 lbs., near the top of the spec. range of 9.33-10.6 lbs.



Gary's new Sukhoi

I was not particularly impressed with the airframe, which was built to be very light, but sacrificed strength as a result. The formers were so light (1/16" ply) that just taking puckers out of the covering broke the one closest to the tail, and bowed the

next one forward. I epoxied in 2 balsa braces to hold the sides apart.

The instructions were also a problem. Nothing shipped with the plane, and a web search turned up two different versions. Instead of waiting and talking to the retailer, General Hobbies, I took a chance and used what I thought were the proper specs. The plane was badly nose-heavy, and took some gyrations and panic trimming to bring under control. Fortunately, I brought it down, called the retailer, lightened the nose, and it was smooth sailing from then on.

New Members, New Pilot

Our newest member, Al Dannerman, attended the Big Bird this year, and was so impressed with the training capabilities of our E-flite Timber that he purchased one to touch up his flying skills after a nine-year hiatus, and to train his young son Aden.

Al and family recently moved from Cozumel, Mexico to Lawrence. The photo below is of Al and Aden working on flying skills using a Spektrum 8X master and 6X buddy box. They have only been up a few times, and Aden is already learning to take off.



Aden and Al flying the Timber

The E-flite Timber demo plane was busy at the Big Bird, and was limited by only 2 batteries and a slow charger. Thanks to Kyle Walker for donating a 25 amp power supply, and to Gary Webber for donating a Hobby King 4 battery multi-charger! We

should be able to keep up with newbies at the next event!

Seedy Business

The runways received a much-needed dose of seed and fertilizer this month! Gary R. used a Brillion overseeder to plant 500 lbs. of "5 colors" narrow blade fescue. He planted all runways and extensions, the west electric runway and some common areas. He followed this with 500 lbs. of starter fertilizer. We are hoping for more gentle rains soon to get the seed started, but if the frost comes first, the seed should germinate just as well in the spring. Total cost of seed and fertilizer was \$780.



Hard at work

Thanks to Gary for taking on this two-day job! His work on the field should pay off with a smoother surface and fewer weeds next season!

Come One, Come All!

The Board is asking all members to try to attend the November meeting, as we will be nominating officers for 2017. To encourage you to attend this important meeting, we have purchased an outstanding raffle plane for November. It is a [Phoenix Model Waco F5C GP/EP ARF 63"](#) from Tower. This ARF includes Phoenix Model Waco F5C with Landing Gear, Wheels, Fuel Tank, Instrument Panel, Decals, Pilot, Spinner, and Instruction Manual. It can be powered with a .91 / 2-stroke glow engine or 15cc gas engine (not included), or a brushless

outrunner 2200 W, 500 KV (not included). This is a new ARF, and retails at \$329, so don't miss a chance to win this beauty!



October 15 Meeting

Only one member entered an aircraft in Show & Tell this month, and that member was George J. George brought a sharp-looking Carl Goldberg Gentle Lady that he bought recently from Bill E. This plane was probably built from a kit or plans, and it would appear by someone who knew what they were doing!

It is old enough that it was powered by a brushed motor. To turn the motor on and off in the absence of an ESC, a servo was installed to throw a single-pole/single-throw switch. George thinks he may replace the can motor with a brushless motor and ESC. This would give him a variable throttle. Very nice!



George's Gentle Lady

Kyle Walker was sitting in for Pres. Gary R, and did a great job. We had two new members attend. Al Dannerman recently

moved to Lawrence from Cozumel, Mexico with his family. He has a collection of planes in Mexico and is working on finding w way to bring them up, but until then is building up a local hanger. He has not flown in many years, and is interested in getting back into the hobby. George Blake attended representing KUAE. Welcome All!

The board has authorized the mowing crew to offer a complimentary membership to anyone willing to sign up for 6 mows next season. Ideally, we will have at least 6 mowers each mowing 6 times. If we can interest more than 6 members, all the better! So far, Dave Burnett, Ed Everett, and Gary Webber have volunteered. Anyone interested in joining the crew should contact Gary at gwebber@sunflower.com.

Finally, the raffle plane this month, a [CMP Yak 54 ARF 140 - 71.5" Nitro Gas ARF](#), was won by Nate E. Congratulations Nate! This makes two meetings in a row! Patrick said his mistake was to shake hands with Nate after performing his voodoo incantation, thus transferring the mojo. I think the law of averages is catching up with Patrick! Nate had already maiden'd this bird at the time of publication.



Nate wins the raffle

How about a ride in a P51?

George W. Jones, guest reporter

My second cousin Jackie, Weyers, Colton did just that! She went to a benefit auction and ended up high bidder for a ride in a P51 named "Barbara Jean". The owner

and pilot is John Barr at Lincoln, NE where the flight took place. Jackie is 65 years old and she was thrilled to her toes, (as I would have been if it were me!) John threw in some loops and roles also.

[Some history and information about the airplane can be seen here.](#)



Strapping in



Ready for takeoff

Getting to Know You Gary Rauckman

Our member profile for November features Gary Rauckman, JMM 2016 President. Gary is the long time editor of this newsletter, and has held many offices during his term of membership in JMM. Here is his story.

I grew up in central Kansas, going to elementary school in Hutchinson. I went to KU right out of high school, and graduated in Mechanical Engineering in 1966. My emphasis was in power plant engineering.

I had a student engineer position with KPL (now Westar) while at KU, and worked for them after graduation for six years. In '72 a friend talked me into going into the home building business, and I have been involved in that ever since.



I was married in college and had twin boys, and a daughter 5 years later. All of our children still live in the area (in Olathe), and we have 8 grandchildren. All but one of our grandchildren live in Olathe. Five out of the eight grandchildren are married, with four getting married last summer. Our family is very close, with our grandchildren getting together every month.

I was active in sports in school. I played tennis in high school, and was on a doubles team that was highly ranked and played in the state tournament. I was also a yoyo champion in sixth grade.

I actually started modeling building stick airplanes in third grade. I was always a hobby junkie, hanging out at hobby shops and drooling over the kits. In junior high I started building models from kits. I remember I built a free-flight model with an Atwood 109 engine, and when I launched it for the first time, instead on circling, it headed due north. I never saw it again!

I built planes through the college years, but when I got out of college, I got involved in collecting model trains, and actively collected until 2000. I returned to airplanes in 1987 when a builder here in Lawrence opened a hobby shop called "The Prop and Wheel". He specialized in Flight Craft kits manufactured in Baldwin City, and I bought my first Futaba transmitter and

learned to fly RC. I started building ducted fans in '91, and graduated to turbines in the mid-nineties. With my background in engineering, the building aspect has always been my primary focus in modeling.

About the same time I got into RC airplanes, a buddy and I got together and bought a Cherokee 140 for \$12,000 and we both learned to fly. I have kept my pilots license ever since, and continue to fly. I recently brought my 1983 Aerostar Yak 52 back into operation and have been flying it again. I plan to sell it as soon as I am satisfied with its condition. It was used as the primary trainer for the Russian air force. Interestingly, it was designed with no lights and limited fuel supply to ensure that Russian trainees could not defect to the west.

The club has always been important to me. I look forward to the meetings because of the comradery and hearing about how other members solve problems. I like the idea of the support we give each other and promoting the growth of the hobby. Over the years we have tried activities to promote RC aeronautics, with limited success. Our demonstration airplane has real possibilities, especially if we can combine it with the class at the airport that we teach every year.

Thanks to Gary for all he has done for JMM over the years! His tireless efforts on behalf of the club have made a real difference for all of us!

Trimming for Aerobatics

Trimming after building is essential for a smooth flying, predictable aircraft. I thought you might enjoy the chart I use to trim a new aircraft. Of course, trimming starts in the building phase with CG, lateral balance, control throws, engine/motor thrust, stabilizer alignment, etc. But once you have done your best to put it together properly, flight tests are the next step in the trimming process. Ask a buddy to help you observe the aircraft and take notes; it makes the process quicker and more fun!

Trainer Trimming Chart

Ideally, flight tests should be performed in calm conditions. Follow instructions in wind conditions.

Trim Feature	Maneuvers	Observations	Corrections
Control Throws	Random maneuvers.	A. Too sensitive, jerky controls. B. Not sufficient control.	If A, reduce throws. If B, increase throws.
Engine Thrust Line And Center Of Gravity	From level cruise, slowly advance throttle to full. Observe line of flight Then...	A. Solid climb, adequate airspeed to avoid stall B. Shallow, high speed climb C. Steep, slow climb, leading to stall	If C or F & elevator up, move CG back, retrim If C or F & elevator neutral, add downthrust, retrim
	From straight flight chop throttle quickly. Observe line of flight.	D. Gentle glide, adequate airspeed E. Shallow glide, airspeed falls F. Steep glide, too fast	If B or E & elevator is down, move CG forward, retrim If B or E & elevator level or up, reduce downthrust
Center Of Gravity Longitudinal Balance	Inverted flight	A. Slight down elevator required B. No down elevator required C. Excessive down elevator required D. Left wing drops E. Right wing drops	If A, Trim is correct If B, Tail heavy If C, Nose heavy If D, add weight right wing If E, add weight left wing
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 correct. If B, tail heavy If C, nose heavy
Center Of Gravity Longitudinal Balance	From level flight at low throttle and in trim, push the nose to 45 dive and neutralize controls.	A. Plane continues in dive for a short distance, and gradually pulls out. B. Nose pitches up abruptly. C. Nose pitches down more (tuck under).	If A, CG is good. If B, Remove nose weight. If C, Add nose weight.
Engine Side Thrust	From level high-speed flight, pull into vertical	A. Continues in a straight line B. Turns left C. Turns right	If A, Trim is correct If B, add right thrust If C, reduce right thrust
Engine Side Thrust	From level flight directly away from you, smoothly advance throttle to full and climb solidly.	A. Continues in a straight line B. Turns left C. Turns right	If A, Trim is correct If B, add right thrust If C, reduce right thrust
Engine Down Thrust	From straight flight at 90° to any wind, chop throttle quickly.	A. Aircraft continues level B. plane pitches nose up C. Nose drops.	If A, trim correct. If B, decrease down thrust. If C, increase down thrust.
Engine Down Thrust	From level high-speed flight at 90° to any wind, pull into vertical	A. Continues in a straight line B. Falls to belly C. Falls to canopy	If A, trim correct. If B, decrease down thrust. If C, increase down thrust.
Landing Gear Placement	On takeoff	A. Tends to nose over B. Difficult to steer at high speeds	If A, LG is too far aft If B, LG is too far forward
Yaw (Rudder Trim)	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/outside loops. C. Yaws to left in both inside/outside loops D. Yaws right on inside and left on outside loops E. Yaws left on inside 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.
Yaw (Rudder Trim)	Gentle turns left and right, same bank angle	A. Turn winds in on left turn B. Turn winds in on right turn	If A, trim rudder right, retrim ailerons If B, trim rudder left, retrim
Yaw (Rudder Trim)	Gentle glide at idle directly away	A. Wanders left B. Wanders right	If A, trim rudder right, retrim ailerons If B, trim rudder left, retrim
Lateral Balance	Into wind, do tight inside loops.	A. Wings are level and plane falls to either side randomly. B. Falls off to left. Worsens as loops tighten. C. Falls to right. Worsens as loops tighten.	If A, trim is correct. If B, add weight to right wing tip. If C, add weight to left wing tip.
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 slightly. If C, lower both ailerons slightly.
Aileron Differential.	With wings level, roll repeatedly left or right.	A. Model stays on heading. B. Adverse yaw: tail yaws in direction of roll (barrel roll). C. Proverse yaw: tail yaws opposite the direction of roll.	If A, Aileron Differential is correct. If B, Too little differential (reduce down). If C, Too much differential (increase down).