

the

Ampeer

May The EFO Officers 2010

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Mailed Ampeer subscriptions are no longer available	The Next Meeting: Date: May 1 Time: 10:00 a.m. Place: Midwest RC Society 7 Mile Rd. Flying Field
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What's In This Issue:
 Red Zephyr Power System – Top Flite Contender Maiden – Some Questions about “A123” 2300mAh Cells –
 More Thoughts on Motor Nomenclature – My Super Stearman is Ready to Take to the Air –
 Upcoming Keith Shaw Birthday Party Fly-in Info –
 Upcoming Mid-Am Info – Upcoming E-events

Red Zephyr Power System
 From John McClure



Radical RC image

Hi Ken,

I am a new convert to model planes and have recently stumbled upon your web site for the Ampeer and live in a delightful bay side village on the south coast of New South Wales Australia. After accessing some of your back issues on the web it seems that you would be a great source for some much needed help.

In learning to fly at our local flying club, I have been flying an old timer and have been converted to the serene feeling of flying these magnificent links with the past. A neighbour has recently

completed building a “Red Zephyr”, and really scratched around (after being given dubious advice) on selecting a suitable electric motor size for his plane. He ultimately settled on a ‘60’ size outrunner, and has discovered that on test it shows that it draws little power. As I am contemplating constructing one myself I would appreciate your advice on what you believe is the correct match for this plane.

My first purchase for a plane, has been a RTF E-Flite Apprentice, and have attracted a deal of negative comments from one of the clubs instructors (not the one that is teaching me). What is your opinion regarding this model? Any advice will be gratefully received.

Now that I have found your site I have locked it in as one of my favourites. I am sure that it will provide me with continuing access to many informative items via your monthly magazine.

Regards,
 John McClure

My Response to John

Hi John,

Selecting a power system for an old-timer can be a daunting task. The Red Zephyr was designed by Herb Greenberg and flown at the 1936 NATS (U.S. National Championships).

http://www.antiquemodeler.org/sam_new/memory_lane/herg_g_story_1993_champs_taft/1993_champs_taft_herby_story_by_nn.htm

I found the Ben Buckle kit available at <http://www.radicalrc.com/shop/?shop=1&cat=153> and

<http://www.pegasusmodels.co.uk/detail.asp?ID=991654&main=Aircraft&sub1=Ben%20Buckle%20Kits>

I also found a review at http://www.rcuniverse.com/product_guide/kitratings.cfm?kit_id=1575

The information on the Ben Buckle kit indicates that it has a wing span of 72-inches/1829mm and the “Tip dihedral and the long fuselage make this lovely model unmistakably vintage.” The reviewer noted, “I used a SC 52FS which is far too much power but all I have at the moment. Overall weight 4.5 lbs.”

A typical 52 four-stroke has the equivalent electric power of somewhere between 525 watts and 700 watts depending on the prop used, make of four-stroke, fuel and weather conditions.

$.52$ (4-stroke displacement) * 0.6666667 (ratio used for equivalent power to a 2-stroke) = $.35$ two-stroke

$.35 * 1500$ (low end equivalent watts for 2-stroke) = 525 watts

$.35 * 2000$ (high end equivalent watts for a 2-stroke) = 700 watts

The reviewer noted that his plane weighed 4.5 lbs. While it is typical to power an electric aerobatic plane at about 100 watts in per pound today, that is not the case for a non-competition old-timer. The missions are radically different. An old-timer’s typical mission is to get up, cruise around, maybe do a loop, look good and land. Its mission is similar to that of an electrically powered sailplane. For a non-competition old-timer (competition old-timers have a different task) 50 watts in per pound would be adequate. The electric power system might add a little weight compared to the reviewed 4-stroke version, so I’ll guesstimate a 5 lb./141.75g ready to fly (RTF) weight. At 50 watts in per pound, a 250 watts in power system would be adequate for some sedate flying.

Because the plane has a “long fuselage”, the motor and battery should be relatively heavy to help balance the model. The prop should be of fairly flat

pitch like a 13x6.5 or 14x7, etc. This type of plane is not meant to be a speed demon, but a nice, relaxing flier.

For a motor, I would recommend the Scorpion SII-3026-710 outrunner or an equivalent outrunner that weighs about 200g with a Kv of about 750 when using a 3S Li-Poly battery. Knowing the weight of an outrunner and its Kv allows you to choose equivalent motors from other manufacturers and suppliers. A 3S Li-Poly battery with a capacity of 3700mAh to around 4200mAh should work well and give very long flight times as well as help with the balance. The Hyperion G3 Li-Poly cells have been receiving very good reviews. I would seriously consider them over some questionable Chinese packs.

When building a plane with a “long fuselage”, provide a means to get the battery as far forward as possible. You can almost always move the power battery, or other components back, if necessary, but you can only move the power battery as far forward as the physical limit you’ve built into the battery area.

According to Drive Calculator, a motor performance predicting tool (<http://www.drivecalc.de>) the Scorpion SII-3026-710 should pull about 40 amps at full throttle when using an APC 14x7E prop. (Input voltage 10.65v, amps 37.9, watts in with the noted prop 394, RPM 6900, pitch speed 45.7 mph, watts in per pound at 5 lb. 78.8) Always use a power meter/watt meter to verify the actual amp draw at full power! Using a predicted maximum amp draw of about 40 amps indicates that a 50-amp ESC should be adequate. When sizing an electronic speed control (ESC) it is best to select one that is rated 1.25 times higher than the expected maximum amp draw at full power. Since this is a three-channel plane, using an ESC with a linear battery eliminator circuit (BEC) should be fine. A Castle Creations Thunderbird 54 would be my recommendation, or an equivalent that might be available in your area.

From what you’ve said, your RTF E-Flite Apprentice appears to be doing the job for you and your instructor. What anyone else has to say about it is irrelevant. I’ve never seen one nor had to the chance to fly or instruct on one, so I have no opinion about it. If you would like more feedback from others about the Apprentice you can check out these threads at RC Groups.

<http://www.rcgroups.com/forums/showthread.php?t=915223&highlight=e+flite+apprentice>

<http://www.rcgroups.com/forums/showthread.php?t=1150468&highlight=e+flite+apprentice>

<http://www.rcgroups.com/forums/showthread.php?t=913197&highlight=e+flite+apprentice>

These are just a few of the threads on the forum. If you join RC Groups, it is free, you can search for even more information and opinions on the Apprentice.

Hope this helps,
Ken

Top Flite Contender Maiden

From Walt Thyng



Photo from April Ampeer – details in April issue

Hi Ken,

I felt well enough to fly today. I maidenized the Contender ---WOW! I think it is going to be my "go to" plane for this season. It took off like a rocket -- straight up! Oops, full down trim. Perfect. Two clicks right aileron -- dead-on. I flew most of the flight at 2/3 throttle. Man this baby gets SMALL in a HURRY!

Stalls are a non-event. Maybe that was because she was slightly nose heavy on the first flight. It still took almost no elevator when inverted so the CG (fore-and-aft balance) must be close.

I tried the flaps. Wow, there was major ballooning and a drop off to the right. A touch and go with no flap was awesome! I did a few more loops rolls, stall turns, attempted spins and then it was time to land. Smooth as silk! Now I gotta get me a 60 size!

Some Questions about "A123" 2300mAh Cells

From Jim Benner, Lansing, MI

Hi Ken,

Happy Easter. Hope you don't mind fielding a few questions but I am transitioning from Ni-cads to

lithium after resisting for some time and need some advice. Truth be known, I need lots of advice.

I'm building a Cessna 195. It has a wingspan of 59 inches and a predicted ready to fly (RTF) weight of 5.0 -5.5 pounds with a wing cube loading (CWL) of 12.29 oz./cu.ft. I am not a very good pilot, so your data on CWL says I may have my hands full.

If your model is the one published in Flying Models with the plans and plastics available from <http://richuravitch.com> and the laser cut parts from <http://www.hobbyhangar.com>, then it has 536 sq.in. of wing area. KM



Photo from hobbyhangar.com Web site

The "kit" is a set of plans and all of the laser cut wood. The rest I have to scrounge. In any event, this overweight beauty can't carry the weight of Ni-cads, which leads me to A123s. I don't care for all the inconveniences of Li-poly batteries.

Ken, I can't tell you how grateful I am for all the literature you've published on A123s. It has all been saved and studied over and over.

Unless it's possible to get a lot of weight out of this plane it appears it will need five cells. Radical RC's web site makes a believable pitch on their ability to perform as a quality A123 source for custom packs. Do you have or know of any experience with them re A123s?

I've made up all of my A123 packs from DEWALT packs, except my first pack, a 6S, which I purchased from Big E RC. I can tell you about Dave Thacker though. He is top notch, first rate, a great guy who stands behind his products! Radical RC is excellent to deal with. I'm sure that Dave can provide you a pre-made flight pack or two at a fair price with

excellent work. I've known Dave for many, many years now and I'm more impressed with him and his business each time we meet. He is our major vendor at the Mid-Am. He'll be at Toledo if you are driving down. KM

I need to buy a charger that will handle [I think] Li-poly batteries and A123s with a built-in balancer and up to five cells. What would you suggest?

Not the least expensive, but one of the absolutely easiest to use with very good power out is the FMAdirect CellPro 10S. I've had experience with several other "upscale chargers" and this is by far the simplest to use that I have personally run across. While not cheap, it is a great value. Be sure to find out what type of balancer plugs Dave is putting on your packs. You'll need that info to order the correct adapter for the CellPro 10S. Using the CellPro 10S at 10 amps, you should be able to charge an empty "A123" 2300mAh pack in less than 15 minutes. KM

Just one more question before I stop burning up all your time. Compared to Ni-cads how much cooling air do "A123s" need?

All batteries need cooling, how much depends on the ambient temperature and how much work you are asking them to do. Lithium based cells, in general, like to run a little warm for best power. A little warm means not cold. Don't read that as more than a little warm, like warm or hot! Try to get as much cooling over them as you would Ni-Cads. If it is a bit less, that probably won't be significant to their lifespan. These really are the perfect transition cells for us old Ni-Cad/NiMH users. They are lighter than what we were used to using and just about as maintenance free. They really do need balancing every so often, especially at first. If you decide to go with the CellPro 10S, then you'll always be balancing your packs as the balance lead must always be connected for the 10S to charge. No problem really. That is just the way it is. KM

The April EFO Meeting

The April 1 EFO meeting was held at Ken's house. Once again, the turnout was very good, and we all had a great time. Many of us were excited because the "official flying season opener" the Toledo RC Expo was coming up fast.

Rick Sawicki brought his latest control line electrically powered model, the Legacy, to share with us. Rick has been doing electric control line for at

least six years now. He was, in his younger days, a top competitor in control line, along with his father.

The airframe was constructed from a Brodak Legacy kit with some parts substitution and modifications made by Rick. <http://www.brodak.com>



He has built a motor hatch and mounting system so that he can easily change between an AXI, Scorpion and Arrowind outrunner. You can see his special mount in his hand in the picture of the three motors. It has an AXI mounted to it right now.



Rick uses a standard Castle Creations ESC that is controlled by his timer/controller. He uses the helicopter governor mode to keep his up-lines and down-lines at the same speed. The Will Hubin timer controls the voltage to the ESC and the time. It sells for about \$23.

If you have questions about control line flying using electric power, Rick would be happy to answer them for you. You can reach him via email at rrjjjsss@aol.com.

James Frolik, who lives in Cologne, Germany, sent Ken a DVD of John Borgen's DC-9-21. Jim sent along the following via email as a background.

About ten years ago an R/C modeling acquaintance introduced me to John Borgen of Copenhagen, Denmark. Earlier John had undertaken an ambitious project to build an EDF model replica of Scandinavian Airlines System's (SAS) very first Airbus, an A300-B4. Ironically he was not a crazy EDF modeler himself, but just a casual eflight hobbyist, and, most important, an occasional R/C scale modeling judge. Yet he had a burning desire to build an electric ducted fan model—actually a semi-tribute to SAS—of a commercial jet that is something not really seen at scale competition events.

Many modelers in Denmark, Germany, and elsewhere in Europe were surprised by John's fine craftsmanship and attention to detail, even with his homemade wooden EDF units. His Airbus eventually flew, first in 2001, and today hangs undamaged in his basement. It was replaced by his next ambitious and even more detailed DC-9-21, Rane Viking, a replica of the last SAS DC-9 in service and which his good

friend, SAS Capt. Torben Sørensen (retired), ferried to the airliner storage boneyard about 7 years ago at Roswell, New Mexico.

John and Torben had become good friends when both were active R/C scale modeling judges. This friendship encouraged John to build a DC-9 EDF model because Toben had logged over 12,000 as Pilot-in-Command in this type and his association allowed John access to SAS hangars to inspect and measure Rane Viking (and other DC-9s). Torben eventually retired about 6 years ago as SAS's most senior captain, having logged over 20,000 hours. So it's slowly becoming clear this EDF model has an interesting history, with actual napkin sketches dating back to 2001.

Throughout John's EDF endeavors he's had Ralf Dvorák as his designated R/C model pilot. Their association was established via the EDF and scale modeling grapevine. An R/C modeling enthusiast for as long as he can remember, and also an expert EDF modeler who's flown for the German National Team, Ralf professionally flew the Canadair Challenger 601RJ for the German Air Force and often had German government officials as passengers, including the German Chancellor. A few years ago he left the German Air Force and is now a captain at NetJets Europe where he flies the Hawker 800XPC bizjet. Without a doubt the combination of John, Torben, and Ralf makes a highly talented team.

And Ralf Dvorák is that acquaintance who introduced me to John Borgen. During his Air Force days he was based at the Cologne/Bonn Airport when Bonn was still the German capitol. Upon seeing John's Airbus I had a good feeling there was a beautiful story—and more to come.

With John's DC-9-21 that "more to come" is here—and it hasn't stopped building momentum. As a hobbyist photographer and videographer, I decided to offer my assistance documenting Rane Viking's first flights. It also offered me a good reason to learn Apple's movie editing program, Final Cut Express (which isn't really an express, but certainly a bit more streamlined and less expensive than Final Cut Pro). Additionally, as a former full-time performing musician for nearly 25 years, I am quite creative and had some latent visually artistic desires to fulfill. So I enlisted my video services to John Borgen.

The result is DC-9-21 Part 1, Part 2, and Part 3. I suspect you have already seen some of the trilogy. Part 3 was just uploaded to Vimeo.com on 28

February 2010. So for your next issue of the Ampeer here are the video links and a photo taken by Torben Sørensen.

Part 1 <http://www.vimeo.com/7043207>

Part 2 <http://www.vimeo.com/7043579>

Part 3 <http://www.vimeo.com/9814202>

Regards,
James Frolik

James also sent along this nice still of the model in flight.



During the watching of the video, there were plenty of snacks. Once the group had completed that DVD, Ken put on his video "Electric Flying in the 90's". All of the footage on VCR tape was captured prior to 1990. Some of the newer EFO members had not seen these archival videos and were amazed at what many of use were actually doing with electric power before 1990. Thank you Keith Shaw!

Our next meeting will be on Saturday, May 1 at the Midwest RC Society 7 Mile Rd. flying field. Everyone with an interest is welcome to come our and join us, and if you have your AMA membership card with you, we invite you to fly with us.

More Thoughts on Motor Nomenclature

From Paulo Scheidegger, Brazil

Hi Ken,

How are you doing? I hope your shoulder is healing fast since you are starting your flying season by now.

The shoulder is coming along okay and should not interfere with flying too much, but I can't hand launch now. Not a real problem, but I was the go to guy for hand launches. KM

Here in southern Brazil we barely felt the equinox changes, our temperatures are still around mid

seventies. Only in July we are expected to get some forties and thirties but not less than that. Flying is all year round, when we have the time for that. Right now I'm quite busy, traveling a lot and flying a little less than intended.

Anyway it is not to complain as we are making good money for that, looking forward to retirement.

You can take a peek at my flying site in Google Maps at http://maps.google.com/maps?f=d&source=s_d&saddr=morro+do+chap%C3%A9u,+ba,+brasil&daddr=gruta+dos+brej%C3%B5es,+ba,+brasil&hl=en&geocode=FdDCT_8dBwOM_Snbe5vL4_prBzE4pY7C12ucrW%3B&mra=ls&sll=-11.55,-41.155833&sspn=0.091997,0.114841&ie=UTF8&ll=-29.685508,-51.218943&spn=0.002381,0.004812&t=k&z=18

or at www.conesulmodelismo.com.br only in Portuguese, unfortunately.

Thanks for your wonderful *Ampeer* job. Every issue is a gift of joy when it appears at my inbox. And the last one was no exception. I was particularly pleased with Ralph Cook's contribution, since I had done about the same calculations for some motors I had at hand. Only the GWS's used Diameter-Length numbers, but I measured their stators and achieved good correlations with either estimated or published power figures. It seemed natural for me that it should be so, by the reasons herr Cook told us so clearly in his article. I felt the power should be proportional to the stator volume the same way glow engines power is proportional to piston displacement volume. And I guess variations in stroke to diameter relationship change the maximum attainable RPM about the same way length to diameter relationship does in an outrunner, although in inverse relation (smaller stroke/diameter or bigger length/diameter produces more RPM, volumes being the same).

Internal combustion engines, which have as much stroke as the piston diameter are called "square" and when that relation is below one we call them "super-squares", which are capable of greater rotational speeds. We could also call "square" motors those with same length and diameter numbers, and "supersquares" those lengthier relative to their diameter. On the opposite end, greater strokes/diameter and smaller length/diameter produces higher torque, being capable of turning bigger propellers, for the same volumes.

Here too, I guess we could find Kv is somewhat correlated to the length to diameter proportion, although the winding counts in each pole also play an important role for which I see no equivalent in combustion engines. I once proposed to use diameter, length, winding count and phase connection to name a motor, e.g. 2304/18T STAR stands for 23mm diameter, 4mm length, 18 turns per pole, star wired phases. GWS small motors are numbered that way, I have a 2212/13T RLK and a 2205/15T RLK.

Adding more cells has the same effect as increasing intake pressure; add too much and you blow up your machine. Too little cells are equivalent to using a smaller carburetor; it ends up restricting the juice getting into the converting machine, whether it be electrons or fuel molecules. And the pack capacity is akin to the fuel tank capacity; this one is already obvious to most of present electric fliers. The secret will be making the calculations herr Cook did. Once we have all the math done it will be easier to convert almost any glow or gas model to electric simply by comparing motor specifications.

The first step is standardizing the way we rate the motors, the same way we find in the internal combustion arena. I strongly support using stator diameter, length and Kv (or better yet, stator volume and Kv) as a first approximation to that.

I enclosed two pictures of myself with two of my planes. One is an electric conversion of a Randy Randolph .049 Bee-tween that I used to fly with revamped CD motors like a 2304/18T STAR.



The other picture is from my former .25 powered Sturdy Birdy that now carries a Dualsky XM3536CA-8 in the nose, this motor does not follow the proposed

standard as it measures 35mm diameter and 36mm length overall, bell and base included. I had not yet disassembled it to take stator numbers. I am the last one from left to right in both photos.



Take care and enjoy your flying and EFO Meetings!

My Super Stearman is Ready to Take to the Air



My conversion of the E-flite PT-17 Stearman into Super Stearman N56772 is ready for its maiden flight. I have posted a complete description of the conversion on RC Groups at <http://www.rcgroups.com/forums/showthread.php?t=1222582>

Details regarding the power system and my new Hitec 2.4GHz radio system will be in next month's issue.

Put This One On Your Event Schedule!
Keith Shaw Birthday Party Electric Fly-In
 From Dave Grife grifesd@yahoo.com

The Balsa Butchers will once again be hosting the "Keith Shaw Birthday Party Electric Fly-In" at their field near Coldwater, MI. The event will take place on June 5 and 6, 2010.

Contest Director: Dave Grife - E-mail:
 grifesd@yahoo.com or Phone: 517.279.8445

Please e-mail or call with any questions

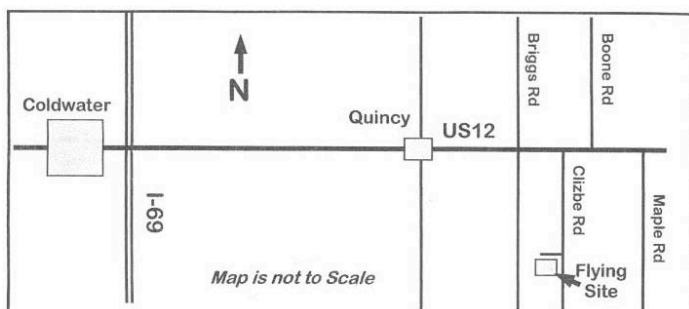
The Flying Field will be open Friday, June 4 for early arrivals

Saturday, June 5, hours are from 9 a.m. 'til 5 p.m.

Sunday, June 6, hours are form 9 a.m. 'til 3 p.m.

Landing Fee is \$10 for the weekend.

Directions: Quincy is approximately 4.5 miles east of I-69. Clizbe Road is approximately 1.6 miles east of Quincy. The Flying site is approximately 1.5 miles south of US-12 on the west side of Clizbe Road.



I love this meet. There is a lot of laid back flying with some of the Midwest's best pilots, Electric Flight Designers, Builders and Authors. I wouldn't miss it! It is a lot of fun for everyone with an interest in electric flight. KM

Mid-America Electric Flies 2010

At the 7 Mile Road MRCS Field
Same Field as Last Year!

AMA Sanctioned

Saturday, July 10 & Sunday, July 11, 2010

Hosted by the:

Ann Arbor Falcons and Electric Flyers Only

Flying Site Provided by the:

Midwest R/C Society

Your Contest Directors are:

Ken Myers phone (248) 669-8124 or

KMyersEFO@mac.com -

<http://homepage.mac.com/kmyersefo/>

Keith Shaw (734) 973-6309

Flying both days is at the Midwest R/C Society Flying Field - 7 Mile Rd., Salem Twp., MI

Registration: 9 A.M. both days
 Flying from 10 A.M. to 5 P.M. Sat. & 10 A.M. to 3 P.M. Sunday

Channels 00 through 60, the six 27Mhz frequencies, the eight 53MHz frequencies and 2.4Ghz, will be in use. Flying on five 49 MHz frequencies may be accommodated on request - Narrowband receivers are recommended for flying on Channels 00 - 60 - Very Wideband 27, 49, & 53 MHz, receivers may be accommodated on request - 2.4Ghz controlled at impound

Pilot Entry Fee \$15 a day or \$25 both days - - - -
Parking Donation Requested from Spectators

Saturday's Events

Best Scale
 Most Beautiful
 Best Ducted Fan
 Best Sport Plane
 CD's Choice

Sunday's Events

Best Scale
 Most Beautiful
 Best Mini-Electric
 Best Multi-motor
 CD's Choice

Planes Must Fly To Be Considered for Any Award

Open Flying Possible on Friday
Night Flying Possible, Weather Permitting, Friday & Saturday Nights

Refreshments will be available at the field both days.

Potluck picnic at the field on Saturday evening.

Come and join us for two days of fun and relaxed electric flying.

Come, Look, Listen, Learn - Fly Electric - Fly the Future!

Saturday's & Sunday's Awards:
Plaques for 1st in each category

Merchandise drawing for ALL entrants
Possible Places to Stay

Please note that this list is not updated and some phone numbers may have been changed.



To locate the Midwest R/C Society 7 Mile Rd. flying field, site of the 2010 Mid -America Electric Flies, look near top left corner, where the star marks the spot, near Seven Mile Road and Currie Rd. The field entrance is on the north side of Seven Mile Road about 1.6 Miles west of Currie Rd.
Address: 7419 Seven Mile Road, Salem Twp, MI 48167-9126 - numbers on the fence
Mid-America Flies Hotel List – 2010 Please call the hotels for current rates



Photo of Entrance to MRCSS Site off 7 Mile Rd.

Novi Hilton
 21111 Haggerty Rd.
 236 rooms
 800-445-8667
 248-349-4000

Hampton Inn Northville
 20600 Haggerty Rd.
 125 rooms
 800-426-7866
 313-462-1119

Hotel Baronette
 27790 Novi Rd.
 149 rooms
 248-349-7800

Sheraton Oaks
 27000 Sheraton Dr.
 206 rooms
 248-348-5000

Wyndham Garden Hotel
 42100 Crescent Blvd.
 152 rooms
 800-222-4200
 248-344-8800

Days Inn Livonia
 36655 Plymouth Rd.
 72 rooms
 800-325-2525
 313-427-1300

Travelodge Detroit
 21100 Haggerty Rd.
 124 rooms
 800-578-7878

Holiday Inn Livonia
 17123 Laurel Park Dr. N.
 225 rooms
 800-465-4329
 313-464-1300

Comfort Inn Livonia
 29235 Buckingham Ave.
 112 rooms
 800-221-2222
 313-458-7111

Detroit Marriott Livonia
 17100 Laurel Park Dr. N.
 227 rooms
 800-228-9290

Upcoming E-vents

May 2 Sunday Radio Control Club of Detroit Watts Over Wetzel (W.O.W.) - Electric Fly-in, Pilot's meeting 8:45, RCCD Flying Field, located in Wetzel State Park, CD Mike Pavlock (586)-295-3053

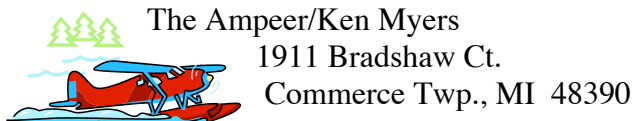
June 5 & 6 Balsa Butcher's Keith Shaw Birthday Party Electric Fly-in, near Coldwater, MI.
Contest Director: Dave Grife - Phone: 517.279.8445
Please e-mail or call with any questions
The Flying Field will be open Friday, June 4 for early arrivals
Saturday, June 5, hours are from 9 a.m. 'til 5 p.m.
Sunday, June 6, hours are form 9 a.m. 'til 3 p.m.
Directions: Quincy is approximately 4.5 miles east of I-69. Clizbe Road is approximately 1.6 miles east of Quincy.
The Flying site is approximately 1.5 miles south of US-12 on the west side of Clizbe Road.

June 12, Skymasters R/C Club Electric Fly, Bald Mountain Scripps Road Field, Event Flying starts 10 a.m., For more information call Pete Foss 248-236-0676
Visit their website at www.skymasters.org

July 10 & 11 26th Annual Mid-America Electric Flies (the Mid-Am), Midwest RC Society Flying Field, 7 Mile Rd, Salem Township, MI, Starting time both days: 10 A.M., contact: Ken Myers phone 248-669-8124

July 17 & 18 Detroit Aero Modelers Electric Fly, To be held at the club field on the S.E. corner of Joy Road and Spinoza in Rouge Park. Pilots meeting is at 10:00. There is a \$10 landing fee. A generator is available for charging batteries. Grill available to those you wish to use it.
Tailgate swap. C.D. Arden McConnell E-mail ft3king@yahoo.com or phone 313-274-3185

August 8 Pontiac Miniature Aircraft Club (White Lake, MI) Electric Fly-in & Pancake Breakfast
CD: Amy Klopman
Club Web site at: www.pmac.us



The Ampeer/Ken Myers

1911 Bradshaw Ct.

Commerce Twp., MI 48390

<http://homepage.mac.com/kmyersefo>

The Next Monthly Meeting:

Date: May 1 **Time:** 10:00 a.m.

Place: Midwest RC Society 7 Mile Rd. Field

All interests folks welcome – current AMA membership required to fly