

the

Ampeer

June

The EFO Officers

2012

**President:**  
Ken Myers  
1911 Bradshaw Ct.  
Commerce Twp, MI 48390  
Phone: 248.669.8124

**Vice-President:**  
Richard Utkan  
240 Cabinet  
Milford, MI 48381  
Phone: 248.685.1705

**Secretary/Treasurer:**  
Rick Sawicki  
5089 Ledgewood Ct. W.  
Commerce Twp., MI 48382  
Phone: 248.685.7056

**Board of Director:**  
David Stacer  
16575 Brookland Blvd.  
Northville, MI 48167  
Phone: 248.924.2324

**Board of Director:**  
Arthur Deane  
21690 Bedford Dr.  
Northville, MI 48167  
Phone: 248.348.2058

**Ampeer Editor:**  
Ken Myers  
1911 Bradshaw Ct.  
Walled Lake, MI 48390  
Phone: 248.669.8124

No Mailed Ampeer Subscriptions

The Next Meeting:  
Saturday, June 16, 10 a.m. MRCS Flying Field

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**More on the Skymasters' April Pre-Toledo Meeting And Bill Brown and Bill Shaftmaster Celebration**

From Joe Hass via email  
Photos by Fred Engleman



The meeting was extremely well attended. Horizon Hobby representatives previewed many of the items that they were showing for the first time at the Toledo RC Expo. The modelers attending the meeting were interested in many of the non-electric related items, as well as the new electric offerings including the updated Habu EDF.



Joe Hass presented both Bills with some "New, exciting products from the Horizon Hobby Family specifically for the Nonagenarian!"



The first was the Hanger 9 P.E.D. (Pharmacological Enhancement Dispenser). Perfect for making sure the Nonagenarian is up to the tasks of the day.



Stabilization Device). The easy to secure curved handle has a lucky rabbits foot, reflector and rear view mirror. The mirror has the special notice, “Airplanes in mirror are closer than they appear.”

The 3rd, and best, was the S.T.T. (Spektrum Transmitter Tray). Every Nonagenarian will be proud to show up at the field with the S.T.T. Not compatible with the DX-18. No one over 60 knows what to do with 18 channels.

*Thanks also go to Fred Engleman for the photo of the two Bills used in the May 2012 Ampeer. KM*

### RC Surface Throw Gauge

by Dennis Sumner, EFO member, via email

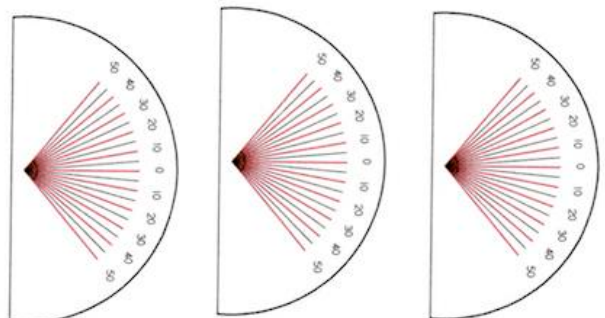
The gauge is made with a few simple parts with the Hayes Micro Clamp #104 (Tower LXX854) being the heart of it.



The gauge can be assembled in less than an hour with simple scraps. I used some scrap .032 pushrod wire, 1/4” balsa, 1/2” long piece of 1/4” dowel, a clamp on sinker from my fishing tackle box and a small wheel collar. The gauge was done with a CAD program and there are enough on the sheet so that you can make one for your friend at the same time.



The 2nd was the JR V.S.D. (Vertical

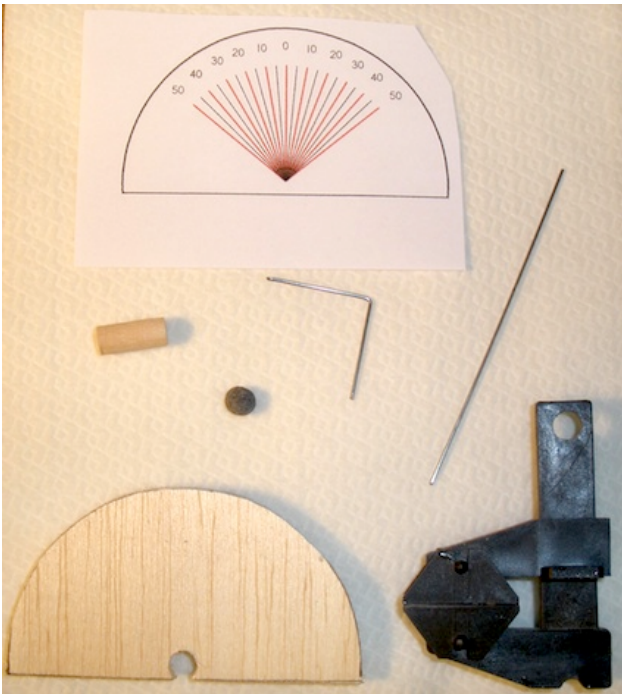




*The full size gauge template is found online at <http://www.theampeer.org/ampeer/ampjun12/Angle-Throw-Gauge.pdf> KM*

Start by cutting a gauge out and tracing it onto the balsa or lite ply scrap. Use a pin to mark the center of the pointer on the balsa scrap. Drill out the balsa or lite ply to accept a 1/4" dowel, then cut the gauge face out.

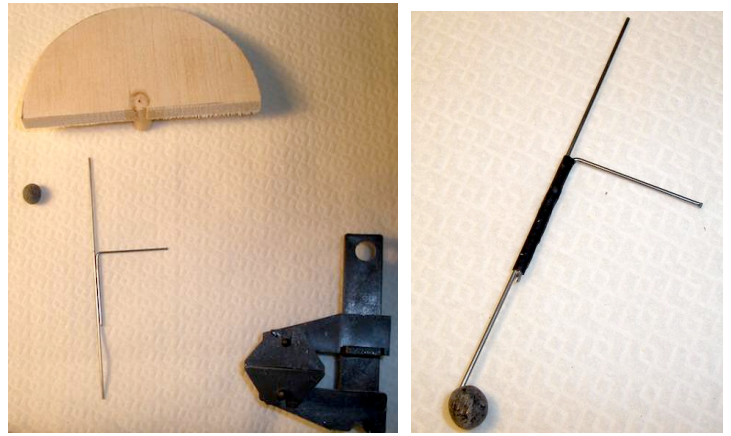
The hardest part of building the gauge is drilling a hole in the center of the 1/4" dowel. When that is completed, glue the dowel to the gauge face with the front flush and then glue the gauge to the balsa.



Use a scrap .032 wire from some park flyer pushrods for the pointer. Cut one piece to about 3 inches long and another to 1.25" long. Bend the 1.25" piece with a 90 degree bend. That piece is going through the 1/4" dowel and should be long enough to extend through the dowel to attach a collar. Thick Zap glue the wires together. Use a piece of heat shrink to cover the joint. Use a small split lead fishing sinker and crimp it onto the bottom of the pointer.

Slide the pointer onto the gauge assembly and use a small wheel collar to keep it in place.

Drill an undersized hole in the handle of the Hayes micro clamp that can be enlarged to a snug



friction fit for the 0.25" dowel so you can adjust the gauge to "0" when attaching to the control surface.



### Keith Shaw Birthday Party Electric Fly-in 2012

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 2 and 3, 2012.

Contest Director: Dave Grife - E-mail: [grifed@yahoo.com](mailto:grifed@yahoo.com) or Phone: 517.279.8445

Please e-mail or call with any questions.

The Flying Field will be open Friday, June 1 for early arrivals

**Saturday, June 2**, hours are from 9 a.m. 'til 5 p.m.

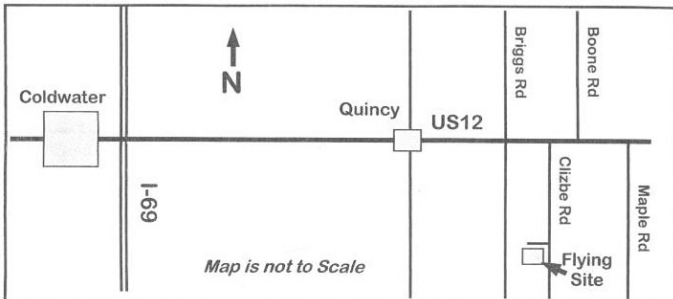
**Sunday, June 3**, hours are from 9 a.m. 'til 3 p.m.

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 best and friendliest fliers/builders around. absolutely nothing in the naming of outrunners that is generally helpful when doing an electric conversion.



### The April EFO Meeting

Saturday, April 7 was a beautiful Michigan spring day with the temperature around 60-deg and light winds.

The turnout was good at the Midwest RC Society 7 Mile Road flying field. It was a wonderful day of flying spent with great friends.



The first photo shows some of the “guys” preparing for a day of flying.

The second photo shows Keith Shaw with his Halberstadt indoor flier, which he flew outside in the early morning, while the winds were down.

The third photo, well look closely. What kind of transmitter is Keith holding? Yes, it is a single channel featuring one push button; one push for



right, two pushes left, three pushes up elevator and quick blip medium speed-full speed-medium speed-off. The new 2.4GHz system is housed in an “old” transmitter case. The up-to-date onboard radio system responds as if it were a compound escapement type, but without having to count the winds of rubber to know how many times the transmitter may be keyed.



Not only does the 2.4GHz antenna give away the fact that it is a “modern” system masquerading as an old timer, as the original antenna would be very long, but holding the transmitter in one hand would have been very difficult due to the very heavy battery!

### The Canadair and OS Motors

From David Hipperson Melbourne, Australia  
via email

*In the May 2012 Ampeer article "Is a 50 a 50?", I suggest a power system for a Canadair 215. David shares his thoughts about that power system. KM*

Dear Ken,

Hi, hope you are well and thanks, as always, for the *Ampeer*.

Luckily I was asked to do a review for a local magazine on an OS motor and selected the OMA-5020-490 (5053-490, 350g KM) as my "test" motor.

It proved to be beautifully presented and made. The motor comes with a handy guide in the form of a printed sheet with some figures and my tests ran very close to these power figures. (*That's very interesting. I have two of the OMA-3820-1200s and an OMA-3825-750 and none of them have been close to the amp draw and watts in numbers supplied by O.S. on their instruction sheet when run with the APC "E" props noted in their tables. I have reviews ready for both of these motors and they will be appearing in upcoming Ampeers. KM*) I used APC 'E' props and my guess would be that the 50 sized motors would be over powered for the Canadair unless it is exceedingly heavy. Also prop size would be a controlling factor. I now use "my" O.S. Motors OMA-5020-490 in a Sebart Sukhoi 50 which is around 3kg (6.61386 lb. or 105.8 oz. KM). Just for general flying I use 5S on an APC 15x10E. I'm seeing 850 watts in, which is just a handy amount of power for my sport flying. On occasions I go a bit crazy and use 6S on the same APC 15x10E prop. That bounces me up to just shy of 1400 watts in and at about 58 amps. As you can imagine, vertical is not an issue. OS suggests that thrust is 5.4kg in this form.

My batteries are 40C Fullymax using two 3S 3200mAh in series and they seem to hold very high voltage for about 50% of the flight time without any problem. Certainly there is no apparent power sag.

As the OS motors now give me a fair amount of confidence, I'd probably be looking more at the OMA-3825-750 (3848-750, 190g KM) as a choice for the Canadair. OS suggests that on 4S with a 13x8E the power should be 688 watts in with 3kg

thrust at 8600 rpm. (*At 14.8v - 4S pack after a short static rundown near the top of the pack - the amp draw would be about 50 with approximately 735 watts in. That is well above the O.S. recommended 40 amps continuous. The Kv is actually closer to 800 as measured by Skylar (Christo), 794, and myself, 805.*

<http://www.rcgroups.com/forums/showpost.php?p=19807825&postcount=127>

*RC Groups thread on the O.S. Motors' outrunners.*

<http://www.rcgroups.com/forums/showthread.php?t=1490120>  
(KM)

As I said, unless the Canadair is very heavy 1300+ watts in should provide plenty of urge added to which one gets extra efficiency from the twin props.

I'm using a couple of the Scorpion SII 3026-710s. (3852-710, 205g with measured Kv of about 770 KM - <http://www.theampeer.org/ampeer/ampaug10/ampaug10.htm#SCORP3026>) One has been regularly flying an ARF Corsair weighing 7 pounds. Power has been off 4S with an APC 12x6E and all of the usual aerobatics are no problem. I'm mentioning this simply because that Scorpion is somewhat similar to the OS OMA-3825-750.

I hope this is of interest, although more by gut rather than lab results.

Regards

David Hipperson

Melbourne, Australia

### **A Safe Way to Check Prop Rotation**

From Arthur Deane, EFO member and President of the Midwest RC Society via email

Ken,

I don't know whether you saw this in the June 2012 edition of *Model Airplane News*.

It is an answer to a major safety issue - how to determine the rotation of a brushless motor without having to have a prop attached.

It certainly needs to be broadcast around.

AJ



What Arthur was referring to is a tip by C. Robert Gladding of Tavistock, Ontario, Canada. He suggests wrapping a 3" to 4" piece of tape around the motor shaft and sticking the ends together to form a "flag" and then watching the rotation of the tape "flag" when the motor is turned on.

I've been doing a lot of motor testing recently and wanted to know whether I'd gotten lucky or not while hooking up the three motor leads of the outrunner brushless motor to the electronic speed control (ESC). I used the method recommended by Robert and Arthur, with one modification. I used a marker to put a big black dot on one side of the tape "flag". That made the rotation determination extremely easy. That is a super safety tip!

### B-47 Model

From David Plummer via email

Hi Ken!

Thanks for the feedback, and the tip on Jim Young's Meteor. I'll definitely try to find some info on it.



I'm having a bit of a problem making connections between the motor control wires in the wings of my B-47 model, and the battery leads. The main problem is there is very little space in the wing where it bolts to the fuselage center keel. I'd like to make the connections in that location (rather than down inside the fuselage where the batteries are) to cut down on the wiring, and to make it a lot easier to connect the batteries after the wings are bolted on. What I need are some nifty little Y connectors (rather than wiring harnesses) that have a single (say, +) input, and two + outputs; need the same for the minus side of the battery: I'm using one 5000mAh LiPo pack for each pair of motors

(#1 and #6; #3 and #4: etc.) If you've ever come across any such connectors, and have time to let me know about them, I'd appreciate it.

I've attached a shot of my model with a sky hook to hold up the RH wing while I try to figure out the connector problem. I'll send you a couple more photos when I get the lead sled assembled for the taxi tests.

Regards,  
David Plummer

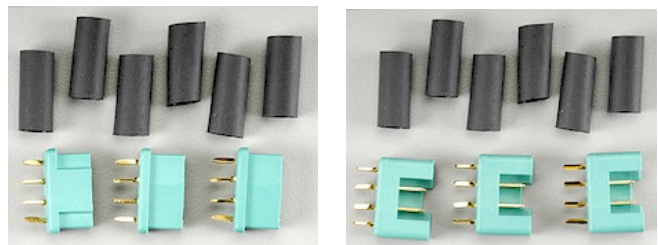
*At the time David asked about connectors I'd forgotten about these. I responded a couple of MONTHS later with this reply. KM*

Hi David,

I'd forgotten about these connectors. They might work to make wiring the B-47 a bit less cumbersome.

They are by Multiplex and available from Tower Hobbies.

<http://www3.towerhobbies.com/cgi-bin/wti0001p?&I=LXEXT3&P=7>



<http://www3.towerhobbies.com/cgi-bin/wti0001p?&I=LXEXT4&P=7>

Hope this helps,  
Ken

### Upcoming Skymasters' Electrics' Over Lake Orion

The Skymasters are having a two day meet, June 9 and 10. The electric meet is on June 9 with a Pot Luck dinner at the field followed by night flying. Sunday June 10 will be Open flying with other Skymasters' members. The event starts at 10 a.m. on June 9 and will continue until Midnight.

Contact Pete Foss email: [petefoss@skymasters.org](mailto:petefoss@skymasters.org) .  
For more information:  
<http://www.skymasters.org/events/flyers/electricfly.pdf>

### May EFO Flying Meeting



The weather was kind of “iffy” on Saturday, May 12. The reports were for some moderate wind and the possibility of showers. While the sky was a bit gray and “flat”, those in attendance found it a good day for flying.



Denny Sumner got the chance to maiden his new LoPresti Fury (<http://www.rcgroups.com/forums/showthread.php?t=1511865>). The plane flew great! Unfortunately, the canopy, the one made at one of the spring EFO meetings, decided to

leave the plane. Luckily it had a pair of eyes on it, so it was easily retrieved while Denny continued to fly the canopy-less plane. Flight report, excellent! No bad habits at all.



A field lunch was served up by Jim Lapham, Rich Sievert and Arthur Deane. It was great.



There were a few very light sprinkles as lunch was ending, but they did not deter the flying at all, which continued until mid-afternoon. Most of the fliers were home by the time the actual rains came in the late afternoon.

It was another great day at the flying field!

### Update on “Power System for a World Models Giant Scale (GS) Spitfire” From the April 2012 *Ampeer*

<http://www.theampeer.org/ampeer/Complete-Ampeer-Index.html>  
From Scott Lillis via email

Here is sort of an update. Slowly but surely it's coming along. I'm putting an APC 19x10 prop on to start with using two 5S 5000 mAh batteries in series with an ICE HV 80a speed controller and the 160



motor with a 245 Kv. All up weight is going to be 16 lb. (yikes) I think the power will be plenty. My old gasser weighed 15.5 lb.



Not shown is the battery tray and the batteries. With the tray in place, there is just enough room for the batteries under the speed controller, which is mounted to an aluminum plate. When the cowling is in place, air will be channelled across the batteries and speed controller.



I just got my prop tonight and worked on the center of gravity (CG). I had to add 1 lb. 4 oz of lead at the firewall.

I will be hooking up the power system to check the current draw, etc., soon. With the 10 cells, the current draw ought to be pretty low.

**Detroit Aero Modelers (DAM) Upcoming 2012  
Electric Fun Fly**  
[www.detroitaeromodelers.com](http://www.detroitaeromodelers.com)

Saturday & Sunday  
July 21st & 22nd, 2012  
9 a.m. to 4 p.m.

Alex Jefferson Field in River Rouge Park  
At the corner of Joy Road and Spinoza

Open event for all electric aircraft & helicopters  
NO LANDING FEE! Just come out and have fun!  
The grill will be available for use for all pilots.  
Spectators watch for free and are always welcome.

Contest Director: Arden McConnell  
313-274-3185  
AMA Sanctioned



**Don Belfort's Tri-Pacer Maiden**  
From Don Belfort via email

Hi Ken,

Last Friday, May 11, was the big day and the Tri-Pacer made a successful flight!

You will see it in person at Mid-Am.

Take care,  
Don

**Mid-America Electric Flies 2012**  
At the 7 Mile Road MRCS Field  
5th Year at This MRCS Location!  
AMA Sanctioned

**Saturday, July 7 & Sunday, July 8, 2012**

Hosted by the:

**Ann Arbor Falcons and Electric Flyers Only**  
Flying Site Provided by the:  
**Midwest R/C Society**

Contest Directors are:

**Ken Myers** phone (248) 669-8124 or  
[kmyersefo@theampeer.org](mailto:kmyersefo@theampeer.org)

<http://www.theampeer.org> for updates & info  
**Keith Shaw** (734) 973-6309



Flying both days 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

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

#### **Saturday's Awards**

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

#### **Sunday's Awards**

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

Planes Must Fly To Be Considered for Any Award  
 Saturday's & Sunday's Awards:  
 Plaques for 1st in each category

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

Refreshments 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!

#### **Merchandise drawing for ALL entrants**

To locate the Midwest R/C Society 7 Mile Rd. flying field, site of the 2012 Mid -America Electric Flies, look near top left corner of the map, 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 - numbers are on the fence.

#### **Two Hotels Added to the Hotel's List**

Because of their convenient location and the easy drive to the flying field, the Comfort Suites and Holiday Inn Express in Wixom, MI have been added to the hotels' listing. They are only 10 miles northwest of the field and located near I-96 and Wixom Road. See the map-hotel .pdf for more details.

<http://www.theampeer.org/map-hotels.pdf>



### Upcoming E-events

**June 2 & 3** Keith Shaw Birthday Party Electric Fly-In", Balsa Butcher's Field near Coldwater, MI, contact Dave Grife phone: 517.279.8445 email: grifesd@yahoo.com

**June 9 and 10** Skymasters' electric meet June 9 with a Pot Luck dinner at the field followed by night flying. June 10 Open flying with Skymasters' members. The event starts at 10 a.m. on June 9 and will continue until Midnight. Contact Pete Foss email: petefoss@skymasters.org . For more information:  
<http://www.skymasters.org/events/flyers/electricfly.pdf>

**June 16** EFO Flying meeting, MRCS 7 Mile Field, 10 a.m.

**July 8 & 9** Mid-America Electric Flies, Midwest RC Society flying field, 7 Mile Rd., Salem Township, MI. Keith Shaw and Ken Myers CDs. Email Ken for info

**July 21 & 22** Detroit Aero Modelers (DAM) Upcoming 2012 Electric Fun Fly, NO landing fee, CD Arden McConnell, phone 313-274-3185 [www.detroitaeromodelers.com](http://www.detroitaeromodelers.com)



### Radio Control Club of Detroit (RCCD) WOW Event

RCCD had an ideal day for their electric fly-in this year on May 19. EFO members Ken Myers and Paul Sockow pitted together and their planes may be seen in the photo. Keith Shaw pitted "just down the way."



The Ampeer/Ken Myers  
 1911 Bradshaw Ct.  
 Commerce Twp., MI 48390

<http://www.theampeer.org>

### The Next Monthly Meeting:

**Date:** Saturday, June 16, 2012 **Time:** 10 a.m.

**Place:** MRCS 7 Mile Rd. Flying Field