# the

November 1999

## The EFO Officers:

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Ampeer subscriptions are \$10 a year US & Canada	The Next Meeting: Date: None for November Time, Date and Place for the December meeting will be announced in Dec. issue	
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basically, hang around and talk electric airplanes plus have the occasional seminar and show-n-tell. We have no field or dues and plan to keep it informal. We have a basic "starter" web page: http://www.members.home.net/eflier.

Once we have a meeting I am sure more interesting stuff will appear in it.

Interested parties are invited to surf the web page and contact me (or Bruce) for meeting information.

## S & B Model Aircraft

Info from their Website at: http://www.users.bigpond.com/bananaman/ S&B%20Models.htm

S & B Model Aircraft is a manufacturer located in Brisbane, Queensland Australia producing quality models catering to PSS or Speed 400

cut, Aircraft Markings & more...

The Focke Wulf 190 D, Ta 152, Corsair and Tempest kits are also available on request. These are all to the same high standard.

The Focke Wulf 190 has excellent performance coupled with style & agility



making it a very smooth and responsive aircraft to fly, and it has very good aerobatic capability as well.

The EPP is nearly indestructible which allows you to enjoy flying rather than worrying about hard impacts that would destroy other models.

The kit is simple to construct and very quick to build, requiring at least two mini

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servos (recommended).

#### **Specifications for FW190A**

Wing Span - 33". Wing Area - 217.25 sq.in. Ready weight - 12-18oz. Airfoil – Eppler 374 Modified. \$99 Australian

For Pricing, Orders or Information Contact by email geoffbarker@ozemail.com.au – Geoff Barker or Ph: 0145 742228

#### Kyosho F-16

(I got this info from Steve Horney, via the E-zone eflight list. Visit the E-zone at http://www.ezonemag.com and join the eflight list. This is a press release from Great Planes. Initial flight reports from the field are excellent. KM)

#### Great Planes announces the new Kyosho F -16:

A new easy-building ducted fan EP jet.

The second in a series of electric -powered, ducted fan aircraft is Kyosho's sport/scale model of the General Dynamics F-16 Fighting Falcon. It combines the looks and excitement of ducted fan flight with the ease and economy of largely pre-assembled foam parts and electric power. Unlike most glow -engine jet kits, this F-16 can be easily built and flown by any pilot with some ARF experience!

\* The tough, lightweight styrene foam fuse and wings are virtually pre-built and coated with a plastic covering that adds durability and style

\* Includes a LeMans AP29L motor AND a ducted fan unit for concentrated thrust

\* Requires only a handlaunch, and delivers smooth stable flight with its light wing loadings and a Clark Y airfoil

\* Captures the sleek profile of the full-size F-16, complete with wingtip-mounted missiles (Note: Model should not be flown with missiles attached.)

The inclusion of the power train make the F-16 a real value! The ball bearing-equipped motor works with the efficient ducted fan unit to produce maximum thrust. They're both also available separately for scratch-built jet designs, too.

Special side intakes combine with the lower scoop to deliver lots of power-producing air for thrilling jet flight.

A styrene foam stand is included that securely holds the plane while attaching the wings and performing other maintenance.

## Specifications

\* Wingspan: 36.8 in (935 mm) \* Wing Area: 302 sq in (19.5 sq dm) \* Fuselage Length: 35.4 in (900 mm)
\* Approx. Weight: 2.5 lb (1150 g)
\* Includes: LeMans AP29L motor, ducted fan unit
\* Requires: 4-channel radio w/4 micro servos, speed control w/min. 30A
capacity, 8.4V Rx NiCd battery, charger

Retail

KYOA1315 F-16 Fighting Falcon EDF Jet \$249.99 KYOG1933 LeMans AP29L Motor 43.99 KYOG3200 Ducted Fan Unit 39.99

## A Celebration of Electric Flight

SILENT ELECTRIC FLYERS of SAN DIEGO announces the third annual MID WINTER ELECTRICS February 11, 12, 13, 2000

Flying events included:, Old Timer Pylon Racing, Sp400 F5B Racing, Sp400 Pylon Racing, Dragonfly Pylon Racing, LMR Glider Toss, Scale Flight and Exhibition

**Friday, February 11**, 2000 evening there will an Electric Flight Symposium at the San Diego AeroSpace Museum.

**Saturday, February 12**, 2000 evening a Mexican Feast a get-together at Marina Village, less than a mile from the flying site.

And don't forget: Dealer Booths, Event Tee-shirts for \$12, Great Raffle

Come fly with us and visit LEGGOLAND, just 45 minutes north on Interstate-5. Don't forget the San Diego Zoo and the Wild Animal Park, the AeroSpace Museum, and the world famous beaches along with Mission Bay Park. Our flight site is within walking distance of Sea World Park.

Visit our web site a http://sefds.org for details or contact, Don Wemple, at DonK126@aol.com or call (619) 469-5566.

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## **RBC Kits Available in the US Again** From: Gregory Kamysz, Crystal Lake, IL Specialized Model Supply http://www.sm-supply.com

(The following was a posting that Greg made to the eflight list. To join the eflight mailing list, visit the Ezone at http://www.ezonemag.com I've had info on these kits before, and I'm very happy there will now be a source here for them. Thank Greg. KM)

I'm happy to announce that I will be stocking RBC kits. RBC kits are manufactured by Robert Bulk of Holland. The kits are CNC router cut, and complete minus electrics, covering, and wheels.

Kits I will be carrying:

Microbe, Stick 400, Delta 400, Tipsy Nipper, Fun 700

The below are scale kits for S600 or 05 8 cell power: P51D Mustang, Curtis Hawk 75, AT6 Texan, Spitfire MKII

New kits are constantly being developed by RBC. For more info, pricing, or to let me know which one

you can't live without please contact me directly, smsupply@owc.net

Please put "RBC info" in the subject and let me know if you would like to be placed on a mailing list.

They should be arriving in about 5 weeks. (*Now as you read this. KM*) If you are looking a particular kit now let me know so I can make sure I have one for you. It will be a while before I can get this on my site, please visit RBC kits for pics at: rbckits.www.cistron.nl

#### Wingo Note from Greece

From: John Konstantakatos remek@ath.forthnet.gr

Dear Ken,

I didn't do sd much flying during my vacat ion as planned. The reason was that during the second week I had a sun attack (feeling exhausted with fever etc.)

I flew the Wingo several times before this. Even in the hands of a complete novice, who was diving the model, I didn't experience any of the self-diving behavior that was written somewhere. (*Here – by Tom Hunt via Silents Please KM*)

I have to say that the Wingo kit al though looking all right as a beginner's plane, has many things to be cured by an experienced modeler before flying. One is the wing's saddle. Its so small compared to the chord, that From: Gordy Stahl GordySoar@aol.com I have plenty of Gordy Cells right now, just for your information :-) Gordy Stahl 9303 LeBeau Ct Louisville Ky 40299 502-491- 5001

**Gordy Cells** 

the wing will rock to different incidence depending on the pressure and thrust. Maybe this is the reason for the diving habits and not the bending boom.

#### Regards, John

Thanks John. It is always a pleasure hearing from you and sharing your experiences in Greece. Hope you are feeling better now. KM

> **Plane Review, Flying Wing** From: Grant Calkins CasinoOp@thegrid.net

Here is another plane review on a cousin of the HobbyFlite 747 I reviewed last month. The owner of HobbyFlite, Chris Hill, has created a new plane product by attaching the two 747 wings t ogether (with suitable dihedral trimming) and the two 747 stabs for vertical fins to make a flying wing. It flies super! This sa ves new molds (the 747 molds were very expensive), which allows him to sell this plane including motor, prop, and all control surfaces attached, for only \$65 retail! Tony Frackowiak, our "pro" maiden -flight pilot at Edwards AFB took a try with mine recently and bought one on the spot!

#### Here is the review:

The rubberized styrofoam Boeing 747 by HobbyFlite, reviewed in the September Ampeer, has led directly to a new and unique plane, a 48" WS flying wing, and does it fly! Stable and true, this plane ROGs, loops and rolls, hand launches, and flat spins - all for \$65 retail including Speed 400 6v pusher motor, props and landing gear! And the darn thing is just about indestructible. Clear lexan elevon control surfaces are already mounted with control horns att ached, you add two micro servos, Rx, flight battery, and ESC. I used an 8x500 mAh pack and Pixie 14 ESC, and it flies for nearly 10 minutes. Mount all the parts by simple carving out recesses in the underside of the wing(s) with a

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soldering iron or razor blade, then clear taping over them. Then go out and fly - and fly it does! A solid 4 1/2 stars (\*\*\*\*1/2).

Contact HobbyFlite on the web at www. hobbyflite.com or by phone at (805)490-8681 or order through New Creations.



Grant Calkins, Channel Islands Condors

**BOB LIVIN'S FORD TRIMOTOR** From: Plenny Bates plennyb@comic.net



It does fly. Bob got the third flight in today. Gusts to 16 but still in one piece.

As you may know he did not bring it to Ann Arbor because the outboard motors made so much "noise" the radio range was about 8 feet. While at your event he talked to Doug Ingram who suggested checking the commutators and resetting the timing of the Astro G 05's. Bob turned the commutators and retimed the motors and



the problem was gone. The center motor is an Aveox F27 light on 16 cells and the 05's are in series on 16 cells. The

plane carries 32 cells. Weight about 16+ pounds - maybe up to 17 pounds now.

## The SR Batteries X250

While at Toledo this year, I spent some time with Mr. SR, Larry Sribnick, and kept picking up and examining X250 prototype that was on display. I must say that I was very impressed. Larry finally released the

kit in September. As many of you readers know, I've had a problem with S400 models – I can't see the little bliters!!! Watching me fly my Rocket into the ground coming out of a sunset has become a pleasant pastime at the local flying field. Well this on e is the same size as my Lightening E250, so that solves that problem. Another problem I have is building someone else's model. I always want to make modifications. This one sure doesn't look like it needs any.

I plan to order one ASAP and build it stock and report here about it. The following is information from the SR site, with Larry's permission. For even more information visit the SR site at http://www.srbatteries.com.

## SR X250

- 7 to 9 minutes of fully aerobatic flight
- 12 to 15 minutes of easy sport flying
- Leaps off the ground in 2" to 5'



• Easily flown in confined areas

- Builds in 4-5 evenings
- Exclusive SR
- MicroLaser Cut parts

Both Aileron and

Rudder/Elevator versions available

- Computer optimized low drag design
- 12-13oz. wing loading
- Optimized for inexpensive \$36 Motor/Gearbox (not included)
- No guess work. Complete, optimized, power systems and radio systems available at special package prices
- Unique composite wing construction and building jig
- Only the best, hand selected, balsa
- Includes computer cut wing graphics
- 9" long hatch for easy access to the radio system and motor battery
- 52 page instruction manual with over 150 photographs
- Includes only the best hardware from SR, Sig, DuBro, Dave Brown, and K&S
- Span: 36", Wing Area: 250 sq. in., Wt: 20 -24oz., Power: Speed 400, Prop: 9x5, Battery Pack: 8-10 cells
- Introductory Price: Aileron version \$79.95, Rudder/Elevator version \$69.95

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#### The X250 Design Philosophy



MicroLaser cut

interlocking parts.

of the components.

Special jigs and

In spite of the X250's small size, it's probably the most thoroughly optimized electric kit ever. The X250 wasn't designed as an airframe. It was designed as a system, from spinner to elevator. Literally hundreds of hours of computer time went into optimizing the "system." We evaluated dozens

fixtures are provided of combinations for perfect alignment of components to come up with

the optimum design.

We know that some of you will be tempted to change some of the components in the power system. We suggest that you don't. Our target was an aerobatic aircraft that would easily do consecutive loops yet still give you 7 to 9 minutes of aerobatic flight and 12 to 15 minutes of sport

flying. The X250 fulfills this goal. If you change any of the components, you may gain a small advantage in one area of performance, but you'll definitely be losing performance in another area. Here is our definition of **Optimum Performance:** 

#### **Optimized Performance**

Aircraft SR X250 (aileron version) Wing area 266 square inches Wing Span 36" Aspect Ratio 4.3:1 CG Limits 2" to 2.75" Airfoil Computer Optimized by SR Typical Wt. w/ 10 cell pack 24 oz. Typical Wing Loading 13 oz. / sq. ft. Stall Speed 13 MPH Max. Speed 40 MPH 10 Cell Current Draw 10 Amps Thrust 18 oz. Climb Rate 900'/min. @ 23 MPH Flight Time, Aerobatic 7 to 9 min. Flight Time, Sport 12 to 15 min. Minimum Sink Rate 2.761 ft./sec. Maximum Glide Ratio (L/D) 11.595 **Best L/D Speed** 25.157 MPH

Only the best hardware, that you would choose yourself at your local Hobby Shop, is included in the X250 kit.



**Plane Ratings** 

From: Andrew Willetts andvw@mindspring.com

Last month, Andy told us about these planes, now here are their ratings. KM

Here are my ratings on the three planes I have built and flown so far (I am still building my Spirit 100, and also have a 36" P51 that I don't think will make it on electric power)..

#### Mirage 550. Goldberg \*\*\*\*

Originally learned to fly with this plane using the standard 550, 8x4, Jeti 35 ESC w/BEC, 7x1700RC. 4xHS80 servos, built with 8" ailerons (two servos for flapserons) Beefed up with an Astro 605G, 11x8 CAM, 7x2000RC cells now 54oz, ROG about 30'. Really climbs, still floats in good weather. Landing gear is too soft (for my landing ability), otherwise a good trainer.

## Flame 66", Hobby Lobby \*\*\*\*

Astro 625G, 217D ESC (no BEC), 12x7 CFK prop, 14x2000RC, 94oz, 4xHS80's (w/flaperons). Performance is stunning, not quite vertical (I could add 2 more cells), 10-15' ROG and 5 minute acrobatics, 90 mph+ performance. Longer at partial throttle, but that's not why I built it!

#### Zagi 400, Trick R/C \*\*\*\*\*

Standard speed 400 & 4.9x4.3, FMA mini 30 ESC w/BEC, 7x500AR, 21oz, 2xHS80's. Hitec 555. With 8x500AR cells and a CAM 5x5 race prop, it tears up the sky! An absolute blast. I have not flown anything else since building the Zagi. Even 2 oz. overweight, the performance is excellent. Tricky at first, but rewards patient learners. Virtually indestructible, makes a great confidence builder.

#### Rating, Mirage 550

From: Glenn B. Campbell gcampbel@seidata.com

If I built Goldbergs's Mirage 550 straight from the box I would rate it \*\*\*. It has insufficient climbing power and has structurally weak areas in the landing gear attachments. The fuselage tail area is very delicate. The tail wheel is a joke, and the wing saddle is not very definite. Overall the fit of the parts is OK, but some are

on the sloppy side. The plane does fly well, gentle and graceful, very forgiving.

I built the Mirage with



Rib spacing jig

eliminates measurements and guess work. Every rib is automatically aligned perfectly.

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some compensating modifications. I used the stock motor, but added a Master Airscrew 2.5 gearbox and a Top Flight 11x8 prop. I mounted this combo with a Sonic Tronics mount to the stock firewall. By mounting lower on the wall and tilting the wall down and back I was able to maintain down force angle as specified on the plans and keep every thing enclosed in the cowl. I did have to rebend the landing gear wire to get clearance for the larger prop, but the track is still wide enough to be stable. I substituted an Astro Flight 215D ESC for the stock on, off switch. Receiver is a JR 600 without the case.

With 7 RC-2000 cells it pulls 27 amps on a fresh charge then settles down to about 24 amps. I have not flown it to BEC yet, but my last flight was about 17 minutes with some power still left. Performance was a total transformation. This thing climbs out very well now, and I can throttle way back when up to altitude. It's still no racer, but acts like a normal plane with no strain, and it is a delight to fly now.

Other modifications included boxing in the landing gear wire retainers and adding some small gussets to the tail for strength and to keep the antenna away from the elevator control rod. I replaced the rubber tail wheel with one that won't flop over. I built my battery pack in the stacked configuration and mounted it under the wing. With only 2 servos under there, I had lots of room. It turned out that I needed that room. With the Mirage's long nose and the extra weight of the gearbox, mount and prop out front, the battery pack had to be placed pretty far back to get the proper CG. I mounted the receiver and the ESC underneath in the old cramped battery compartment. I do have to take off the wing to replace the batteries now, but Oh well! I used Ultrac oat to cover it with and painted the trim. Overall weight came out right on 48 oz.

In summary, the basic design is good and with a little work can be made into a delightful flyer.

Glenn also sent along a couple of photos taken at the E-Nats in Muncie.



The Ilyushin IL-30 flys!..... From: Grant Calkins CasinoOp@thegrid.net



It was a very exciting day! My electric IL-30 Russian heavy bomber took to the skies in it's maiden flight this morning at (where else) Edwards AFB...and it flew!

In the capable pilot hands of Tony Frackowiak, it lifted off the ground after a considerable run and climbed gently. With both EDFs humming, p ass after pass over the desert strip was just so scale looking some onlookers were sure the Russians were coming. The second fl ight

was timed at over 6 minutes and there was power left over - guess those 3000 mAh NiMH batteries do give longer flights after all! Only



casualty was a fried ESC - the AstroFlight 217D is rated at 30 A and I'd never had problems with over -powering it, until now. MotorCalc rates this plane's battery draw at 46 A at takeoff, and I guess it knows what it is talking about.

New Canadian Supplier

From: Brian Hewitt Hewitt@ionline.net www.hewitthobby.com

Hi Ken,

My business name is: Wheels Wings & Other Neat Things Electric Flight Supplies Bryan Hewitt RR#1 Box 24 Plattsville, Ont. Canada NOJ1SO Tel: (519) 684-7794 E-mail: hewitt@ionline.net

I handle Speed 400 supplies: slow flyers, park flyers, glues, etc. I deal with Astro Flight, Balsa USA, Dymond, Maxx(mpi), Hobby Lobby, Skybench Aero, Trick, Model-air Tech, Bill Griggs, and Anchor Seal. I carry sailplanes and electrics. The Carbon D-light electric just placed first in the all up last down at the Montreal electric fly. I handle them. I c an get Aveox and Kontronics. I am adding more all the time. I am working on a web page. I do mostly mail order now but will have a shop open on from October to May. I also try to go to all the electric meets I can find, especially in

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Ontario, as I have a traveling store (trailer).

#### **Electric Trainer**

From: Ron Oakley ron.oakley2@sympatico.ca

Ken for what its worth,

I learned to fly on a Great Planes PT electric. It flew very well on the supplied motor and 7 cells.

After I got my wings I started to change thing. I replaced the motor with a Goldfire and ran it on 8 cells very nice..

Then I bought a master air screw 3.5:1 gear box. Big difference. It R.O.Gs in about 15-20 feet. Nice performance on 8 cells with a 12x6 electric prop.

Right now the PT has being converted to an almost Pete and Paul. I call mine a Pat and Ron.

After the last kiss with the ground, I flipped the fuselage upside down and mounted on some sticks and Pat and Ron was born.

It flies even better. At the moment I have a speed 600 7.2 volts 3.5:1 gear box and a homemade 13 inch folder. I use 9 cells. 18 -20 amps, 8.5 volts to the motor. The plane weights 52 ounces.

#### **MISS & EFO Fall Flyout**

The weather predictions were dire for Sunday, October 17. A cold front passed through SE Michigan during Saturday evening bringing high winds and rain. Sunday dawned very gloomy and chilly. Tom Blaszak called about 8:30 to check on the weather up here. Reporting from my deck, I told him that it didn't look good, but he said he be at Camp Dearborn about 9:30. I got the EFO portion of the food stuffs ready and headed out. I'd not loaded my plane. I got about 1/3 of the way there and thought I'd better go back and get it. It was a good thing I did.

When I arrived there were several electric fliers already there, and a few of the glider folks. The winds stayed down enough, and temperature rose enough that we all had a wonderful time, flying, talking and eating.

There were about a dozen fliers, mostly electric, with several of the glider folks having eplanes as well. Many of the dozen or so fliers brought wives and children. It turned out to be a real picnic. Tom served up hog dogs at one end of the table, while I served up beans and chili at the other. Pop and chips were also available.

Tom and I talked about getting together for a spring opener. Sounds like a fantastic idea. We hope that weather is a bit better then, but we sure had a fun time. Thanks Tom, Al, Norm, Wally and all the MISS folks! Midwest Essence Rating

From: Bill Mecca wmecca@epix.net

I recently completed a Midwest Essence that was built in the V tail configuration. Since I had no experience with V tails, I did not invest a great deal of money in this bird. My mistake. With a Spe ed 600 direct drive on seven cells (1000 mAh) and using a Hitec 3 channel for guidance I have created a great flying machine, rock steady on climb out and vertical, nice thermal capability, although that should not be a surprise.

The aircraft appears to be very short coupled due to the much larger V tail. I expected a bit more nervousness in the flight. That did not happen. I'm going to retrofit a cobalt 05. It will then be a great airplane. 4 stars.

#### **Thanks from Joe Hass**

I'm publishing this thanks for you too, since it is because of Midwest R/C that the Mid-America Electric Flies have turned into the premiere North American electric meet. KM

Mr. Keith Shaw Mr. Ken Myers Contest Directors Mid America Electric Flies

Dear Keith and Ken:

As testimony to how far behind I am I finally writing to thank you for the wonderful event you organized for the 1999 version of the Mid America Electric Flies. As always, it was a success.

I am continuously amazed at the technology and camaraderie at this gathering. I always come away with more ideas and inspiration. Next year can you give me a little more time too?

I have figured out a fix for the DC-3 landing gear and have another twin in the works. I may have a few more projects as well.

It is always great to be a winner too. I was the first subscriber to Michigan R/C Flying Times so I will enjoy an extension.

Please keep up the great job. Thanks for the continued support and encouragement. See you next year.

Sincerely, Joe Hass

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And to show you what a class act Mr. Hass is, here is a copy of his letter to Michigan R/C Flying Times. KM

Michigan R/C Flying Times P.O. Box 1 Imlay City, MI 48444-0001

Dear Bob:

I am sorry this is so late.

Thank you for donating the subscription to your magazine to the Mid America Electric Flies event last July. I was please to be a winner of an extension.

I always look forward to the arrival of R/C Flying Times. Chris got a real kick out of seeing his Paraplane in print. I got an e-mail from another subscriber asking for details on the Paraplane.

Please keep up the good work. Thanks for supporting the local events. Good flying.

Sincerely, Joe Hass 1142 Brunswick Dr. Rochester Hills, MI 48309

#### CYA GLUES A HEALTH HAZARD

From: MerleDavies 28523 Dino Cir. Chestorfield, MI 48047-4319 Marine City Radio Control Club Marine City, Michigan

Perhaps the information below, condensed from the article in "Modern Aviation" is worth insertion in your newsletter.

Material Safety Data Sheet informs readers of the harmful effects of CyA glue, which flying model builders use. There can be potential health effects if the adhesive is not used out-of-doors, with a fan for good ventilation, or a paint spray respirator. Cya glues contain Eythl Cyanoactate the **most harmful**, while the **oderless** type uses Butyl Cyanoacetate which is much less **harmful**, and more expensive. Alternate for the above are slower epoxies and aliphatic resins like Titebond II, Sig - Bond, and Carpenters glue.

The strong odor CyA adhesive acid component can

cause damage to the eyes. The burning you feel is the acid etching the lens of your eyes, slowly destroying your vision. The vapors slowly burns the air sacs in your lungs, combining with the moisture to start sealing the tissue, causing hard breathing as in a severe asthma attack. Possible nerve damage and itchy skin problems can result. This product is giving us lots of warnings, so it will be used correctly. **Children** should **not use Cya**.

#### Also from Merle BAMBOO USED FOR MODELING

In the 30's and 40's bamboo was very popular for the construction of light weight models because of its strength-to-weight ratio. The material can be sp lit, then formed into curves for wing tips, tail surfaces, sometime fuselage stringers. Only small, thin strips of 1/16, 1/32 and 1/64 square sizes are required, thus small amounts are necessary. Model suppliers no longer carry the product, so picnic supplies may be a convenient source.

To prepare bamboo for splitting, shave stock to the proper thickness on the dull, soft side. The shiny side is used because it has the most strength. Split stock with a heavy, sharp knife cutting edge placed on the wood a t the desired thickness, push the blade slowly while working side to side. Working too fast will produce uneven width strips. A bit of practice will produce desired results.

Form bamboo by heating over a candle, light bulb, soldering iron, stove, etc. Place the strip adjacent to heat source until the <u>shiny surface</u> looks oily, only then begin to form the curve with your fingers, a little at a time. Over bend the curve, as the bamboo will spring back some when cool. Hold in the bent over position until wood is cool.. A bit of practice is necessary for satisfactory products Regular modeling cement will hold the bamboo in place.

US Scale Masters Championship From: George Heiman Catgeo@aol.com

#### Hi Ken,

I'm sending along a couple of photos I took of Bo b Benjamin and his big electric Taylorcraft at last month's US Scale Masters Championships in Phoenix, AZ. It just worked out by accident that I was in the area on vacation. He seemed to be scoring well, but I have no idea how he finished. They had a large crowd at this event on the days that I attended, and it was covered on local television. The quality of workmanship really has to be seen to be believed. The announcer always let the crowd know that Bob was flying an electric airplane. It

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still seems strange to me how many people are unaware of the potential of electric R/C flight. Thanks, as always, for the great newsletter.

Thanks George. We all owe Bob a HUGE thanks for all he's doing.

## Using E-mail to Enhance E-flight

The following is presented because it shows how useful having email and access to the world wide web can be. Weldon Smith had a question about CFK props that Andy Willetts mentioned in a recent Ampeer. Here is how an exchange of e-mail helped Weldon. Weldon Smith email – lasfws@mc.net Andy Willetts email – andyw@mindspring.com

I don't ever remember seeing a reference to CFK props before (in October Ampeer). Can you tell me a little more? Where do you get them? Who d istributes them? Perhaps my local hobby shop can get them if they know who the distributor is. Thanks for any info you can send.

Weldon Smith

They are the Graupner carbon fiber folding props. You get the 'normal' gray ones, then CAM - used more for sport racing I think, then CFK is top of the line. They look a little like the CAM props, but they are hand laid fiber mat, and works of art to behold. The performance difference between these and the regular (gray) folders is amazing. They're slippery little suckers, and give me more RPM and thrust at lower amps. Plus they're \$30+ per pair of matched blades.

I broke one prop when the thing veered left on takeoff and I didn't clear a pilots box (empty!!). Check out http://www.graupner.com/ and the props are at http://www.graupner.com/prop.html - although I get everything electric related thru Kirk Massey at Ne wcreations ( http://www.newcreations -rc.com ). Watts New at Astro Flight?

The following information was taken directly from the Astro Flight Web Site and is presented here for the offline readership of the *Ampeer*.

The **Mighty Micro 010** brushless motor (p/n 801) is here! We are starting to ship our first batch of our brand new



Sensorless 010 brushless motors. The motor weighs only 30 grams and the control only 5 grams. The pro totype shown spins the 6x2.8 APC prop at 9800 rpm on a six cell 350 mAh pack and draws only 2.5 amps. The motor and control will work with 4 to 8 cells. The control has a BEC to power your receiver and has two speeds "ON" and "Brakes". Motor with control \$89.95

#### Afterburner for Kyosho T-33 and F-16

Our new 4 turn brushless 05 motor with 12 fet control is specially designed for the Kyosho T-33 and F-16 fan units and the We-Mo-Tek 480 fan unit. You can run the



T-33 on 8 or 9 Nicads or ten 3000 mAh hydride cells. Current draw is between 19 and 20 amps so you get long flights.

#### **NEW! Astro 215D Digital Speed Control**

All new surface mount for minimum size and weight. All new synchronous rectifier circuit for top efficiency. BEC circuit eliminates need for se parate receiver nicad. Powerful four MOSFET brake circuit for folding props. Four SY4410 MOSFETS handle 30 amps continuously. Four SY4410 MOSFETS handle 40 amps for 30 seconds. New 8 bit Micro processor control needs no

adjustments. High rate 2800 Hz switching frequency for best efficiency. Weighs only 1/4 ounce and is 1.4 x 0.80 x 0.15 inches. Special Sales Price... \$60.00



*I've been using one all summer and HIGHLY RECOMMEND it. KM* 

## **Upcoming Events:**

**November 28, 1999** Blacksheep Exhibition Squadron All Electric R/C and C/L Fun Fly, Sepulveda Basin Flying Site, Van Nuys, CA, 8:30 am - 4:00 pm

**Radio Control Events**: Smallest Electric, Ducted Fan, Old Timer, Pattern, Scale, Glider, Sport

Control Line Events: Fun Scale, Stunt

All entries judged by contestants! AMA License required to fly! \$10 Entry, \$2 for each additional event or airplane. Free pilots raffle! Contest Director: Tony Naccarato, 818-842-5062

Directions: Exit 405 FWY at Burbank Blvd., West on Burbank, then North on Woodley Blvd., Field is the first entrance on the left. For more info contact: Steve j Ciambrone steve.kari@juno.com

February 11, 12, 13 A Celebration of Electric Flight

SILENT ELECTRIC FLYERS of SAN DIEGO announces the third annual

#### MID WINTER ELECTRICS

**Flying events included:** Old Timer Pylon Racing, Sp400 F5B Racing, Sp400 Pylon Racing, Dragonfly Pylon Racing, LMR Glider Toss, Scale Flight and Exhibition Friday, February 11, 2000 evening there will an Electric Flight Symposium at the San Diego AeroSpace Museum. Saturday, February 12, 2000 evening a Mexican Feast a gettogether at Marina Village, less than a mile from the flying site.

#### And don't forget:

Dealer Booths, Event Tee-shirts for \$12, Great Raffle Come fly with us and visit LEGGOLAND, just 45 minutes north on Interstate-5. Don't forget the San Diego Zoo and the Wild Animal Park, the AeroSpace Museum, and the world

famous beaches along with Mission Bay Park. Our flight site is within walking distance of Sea World Park. Visit our web site a sefds.org for details

#### **New From Astro Flight**

New Hex style gear boxes with firewall mounting screws. 701 fits 035, 702 fits 05/15 and 703 fits 25/40 reduction ratio 2.38:1 for 701 and 702, 1.68:1 for 703





The Ampeer/Ken Myers 1911 Bradshaw Ct. Walled Lake, MI 48390 http://members.aol.com/KMyersEFO

The Next Meeting: Date: December 1999 Time, Date and Place to be announced in the December Ampeer