

the

Ampeer

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Ampeer subscriptions are \$10 a year US & Canada and \$17 a year world wide.	The Next Meeting: Date: Thursday, Jan. 2 Time: 7:30 p.m. Place: Ken's house: 1911 Bradshaw Ct., Walled Lake	

What's In The January 2003 Issue:

A Pitts – Premier – Battery Supplier – FYI News – Getting Started in Electrically Powered Radio Control Flying – Ampeer Correction and The Saga of Astro Flight 803V – December EFO Meeting – Upcoming Events

A Pitts

From: George Zhopasruchkoy
zhopasruchkoy@yahoo.com

Hi Ken,

I would like to thank you for your help, suggestions and inspiration in building this beauty. It flies great with an Astro Flight 802G with 11x7 and 9 CP-1700SCR cells. The weight is about 42 oz. - little bit overweight, (and I still don't understand why) but flies great. Thanks again, George.



and was a free plan in Aircraft Modeller May 1991. The original was powered by a .049 Cox and was built accordingly [Heavy]. The original wing used a Clark "Y" section. I changed this to SD3021 and placed a block under the trailing edge at the approximate position I thought would be correct. The fuselage was constructed from 1/16" [1.6mm] balsa with a 1/32" [.8 mm] vertical balsa doubler and a nose block added to accommodate the speed 400.

2 x 6 gm Naro servos, a Jeti 15 amp controller and a Jeti feather receiver. The roundie bit was the mandatory Gunther 5x4.

For ease of construction I left the servos outside and used the elevator servo to balance the aircraft with the batteries in the centre. The bits hanging out side do not appear to slow it down and the glide is flat and smooth.



An Old Plan Modernized

From: Ray Williams
rwilliams@campac.net.au

Hi Ken,

I have attached a couple of photos of my latest effort. The design is called "Premier"

7 x 600AE cells provided the power. With fully charged batteries it weighed in at 14.125 oz. [423gms]

The first flight was a bit of a non event except for the launch as it dived madly for the ground but, a thumb full of up and some trim adjustment had it flying nicely, the wing was not at the correct angle of attack.

The aircraft has now had 15 flights and during this time I have gradually worked away at the wing block and C of G and now all trims are neutral. Seven minute flights are the order of the day with throttle management. It does all the usual things, loops, rolls, inverted and will slope soar.

One thing I have found with the Gunther props, they are not balanced. I built a balancer with a couple of magnets, two bits of ply and a small bolt sharpened at both ends. I have found that the blade with the name on it is always heaviest and requires quite some filing. The resultant balanced prop is about 30% quieter and the motors appear to last longer.

Has anyone had the same experience?

Thank you once again for a great newsletter. I often go sifting through old numbers to find information.

Stay Well,
Ray Williams

Battery Supplier

From: James Maughan jamesmaughan@yahoo.com

Ken,

Hello...I recently found a battery supplier on the net that has good products and the prices are very good. In case you are interested: www.cheapbatterypacks.com

Rich and I have ordered from him and it gets here in a few days and the packs are very well put together. I have been using the 8 cell 1800 NiMH pack s for my ZAGI and Lazy Bee. I get 20 minute flights on my ZAGI, and best of all the 8-cell pack only weighs 8 ounces!! Check it out, and please pass this on to the club members.

Molybdenum Disulfide Question

From: Roy Day rday125@att.net

Ken,

I read the article in the August 2002 Ampeer concerning the lube benefits of molybdenum disulfide for electric motors. I've searched the Internet and found (Rose Mill), but they only sell in

large quantities. I have tried to contact Gary Baker who gave the info to Ampeer by email several times but always get my mail returned. Perhaps some of the Ampeer readers can suggest a source. I would appreciate it.

Regards,
Roy Day
301 881 4721

FYI News

Larry Sribnick, owner of SR Batteries, puts together an email news update called FYI. It lets you know before anyone else what the "hot" news is at SR. You can subscribe by visiting:

<http://www.srbatteries.com/rc.htm>

It is NOT my intention to republish what Larry sends out here, but... Here is some info from Larry's latest issues of FYI.

FYI is a publication of SR Batteries, Inc.
Box 287, Bellport, New York 11713
Email: techsupport@srbatteries.com
Web Site: <http://www.srbatteries.com>
Phone: 631-286-0079

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* content edited for space: K. Myers

November 20, 2002

The AcroPro kit and the AcroPro Wing Conversion for the Cutie are both being shipped!

AcroPro Kit and Wing Conversio n...

We started shipping the new AcroPro kits last week. The AcroPro section of our web site is up and available. www.srbatteries.com/acropro.htm

Paul Matt Drawings and Golden Age of Aviation Books...

I don't know how many of you are aware of it, but many of the wonderful 3-View drawings you've seen over the years in both full scale and R/C modeling magazines were done by a gentleman named Paul Matt. A collection of his drawings is now available in both book and CD form. I particularly like the CD's because you can do so much with the images without having to scan them. There are two books and four CD's available in the

collection.

In addition to the Paul Matt collection, there are three great books in the Golden Age of Aviation series in which you might be interested. There's one for Aeronca, one for Cessna, and one for Piper. They are just great reading with lots of photos, 3-Views, history, and even magazine ads that were run during the 1920's, 1930's, and 1940's. If you're as nuts about Golden Era aircraft as I am, you'll want to have all three in your library.

We've been lucky at SR to be allowed to sell both the Paul Matt and the Golden Age of Aviation collections. We've set up a web page that will tell you all about each book and CD with lots of examples in Acrobat PDF format.

www.srbatteries.com/books.htm

November 6, 2002

This is an exclusive for FYI readers! The new AcroPro kit won't be announced to the public for several weeks. There's even a special "deal" for FYI readers! (*See you should be getting FYI. You missed the sneak announcement and special deal!!! KM*)

Well, it's finally time to tell you all about our new AcroPro kit.

Probably the best way to describe the AcroPro is that it's a fully aerobatic Cutie on steroids! We've added a fully symmetrical wing, ailerons, a second hatch, beefed up landing gear mounts and fairings, battery tray and motor mounts. We've also dramatically increased the horsepower by utilizing the Jeti Phasor 15/4 brushless motor on seven cells.

Here are the numbers... Span 45", Wing Area 350 sq. in., Weight 38 oz., Wing Loading 15.6 oz./sq. ft., Flight time 6 to 7 minutes of aerobatics and 12+ minutes of sport flying.

The AcroPro is an aerobatic hotrod. Loops, rolls, stall turns, inverted flight, snap rolls, Cuban eights and all the rest of the usual maneuvers are no problem. It will even do horizontal and vertical eights!

Although the AcroPro can be significantly faster than the Cutie, it doesn't have to be. It will do all of the above maneuvers at a fairly sedate speed if you want it to. We didn't want the AcroPro to be a pylon racer because pylon racers eat up a lot of sky and require large flying sites. The AcroPro can easily be flown in a ball field just as the Cutie can.

Before we mislead you, the AcroPro wasn't designed to be an unlimited 3D aircraft with unlimited vertical performance. At least not with the power system we've

designed for the AcroPro. If you want a skyrocket, go for it.

The AcroPro's structure can handle it. However, we don't think a lot of people will want more power than the AcroPro's standard power system will give.

There are three different ways that you can enjoy the features of the AcroPro. First, you can buy an AcroPro kit as we've described it. Next, you can buy a conversion kit to add a lot, but not all, of the AcroPro's features to the Cutie. The conversion kit will give you the AcroPro's wing, new wing saddles that can be simply attached to the Cutie's existing wing saddles, and reinforcements for the Cutie's motor mounts so that you can use the AcroPro's power system. More specifically, it includes all the necessary balsa parts, plywood parts, building fixtures, composite spars, instruction manual, full size plans, Dubro Kwik Links, Dubro control horns, threaded pushrods, SR Gapless Hinge Tape, socket head screws, wing saddles, and a pair of AcroPro graphics. The only thing it doesn't include is the set of four 1" building blocks because we assume you still have them from your Cutie kit. If you don't, let us know and we can provide them for a small extra charge.

Finally, you can purchase the AcroPro conversion kit for your Cutie, but continue to use the Cutie's normal power system. What you'll have is an advanced aileron trainer or sport aircraft with full four channel capabilities. Frankly, the Cutie is a ball to fly this way.

The introductory price for the AcroPro kit is \$XXX.XX.

(Check the site for current pricing. You missed a good into price and free shipping! KM)

As for the AcroPro's power system, here's what you get...

The AcroPro Power System consists of the Jeti Phasor 15/4 Brushless motor, Jeti JES 30-3P Brushless Motor Speed Control with Sermos connector, SR 1300 Max seven cell pack with Sermos connector, Graupner CAM 9x6 prop, Graupner Prop Adapter, SR L exan Switch Plate and mounting screws, and 6 aviation grade cable ties with stainless steel locking clips. Naturally, the system is bench run and tested to make sure everything is working properly.

The individual component prices would normally be \$271.05, but the introductory price is \$XXX.XX additional if purchased with an AcroPro kit or Cutie/AcroPro Conversion kit.

We also stock everything else you'll need including, covering material, receivers, servos, aileron extensions and "Y" harnesses.

Enough talk! Follow this link to photos of the AcroPro. In addition to the photos, you'll find a PDF file for the AcroPro's plans so that you can study them!

www.srbatteries.com/temp/acropro.htm

If you have any questions, drop us a note at support@srbatteries.com or give us a call at 631-286-0079.

(Once again, I encourage you to sign up for FYI. KM)

Getting Started in Electrically Powered Radio Control Flying

By Ken Myers

Where to begin? There are so many things to say about getting started. They can include what you might need, who you can learn from, where you can purchase items, even why you might have a desire to learn to fly electrically powered R/C models.

Before you begin, you need to know about the "sharks" out there. There are more "sharks" than ever before, and they are in a full feeding frenzy! I am angry! I am very angry!

Who am I angry with? **My local hobby shop** is selling electrically powered R/C beginner planes that they absolutely, 100%, know are unsuitable for the task. **ALL**, every single one, every one, of the **national and international modelling magazines**, including our own AMA magazine, are advertising beginner electric R/C planes that they absolutely know are unsuitable for the task. **A huge amount of distributor Web sites** are offering R/C beginner planes that are absolutely unsuitable for the task. Why, if they know these planes cannot perform the function they are being advertised for, do they sell them? Pure and simple, they sell. They make money for the hobby shop, magazine or Web site.

Whose fault is it that they are making so much money from these less than useful products? It is yours, the R/C beginner. You are letting "them" manipulate you with their pricing and point-of-sale products. You are cheap and hedonistic. They know this. They use you, and I'm sure they thank you!

Now that you've been totally insulted, I hope that you will continue reading, as I will explain how to not become a victim of the sharks, and how to get into this hobby/sport and enjoy it. That's what a hobby, any hobby, is all about, enjoyment! It is what you do with another part of your life.

Desire

Don't get into this hobby to "try" it to see if you like

it. Don't try to get someone else, like your kids, into this hobby. The only valid reason to get into this hobby is because you find "flight" fascinating. If you have no "emotional" connection with things that fly, don't even think about getting into this hobby. If you do not have a passion for aviation, past, present and future, do not consider this hobby. If you just want to control something remotely, because you have a desire to have something that you can control in your life, this is NOT the hobby for you. Buy an R/C car at Radio Shack.

Disposable Income

If you do have the true **desire**, you must have the ability to use part of your income for things other than paying the monthly bills and putting food on your table. If you don't have enough money to do it right, start saving, or don't do it at all. Don't give into "impulse buying" just to satisfy an immediate desire or curiosity. Make sure you are using your disposable income to its fullest advantage. Don't feed the sharks!

The \$100 – \$200 TRAP

Avoid, like the plague, complete, electrically powered R/C beginner packages in this price range. They are garbage. They are chum. They do not allow you to enter this hobby and learn how to fly electrically powered R/C planes. You are feeding the sharks, and the only thing you'll have to show for your money is an expensive lesson. You cannot purchase a decent radio system, plane, charger and power system for learning to fly electrically powered R/C planes with only this amount of money. If anyone says you can, run as fast as you can away from them. They want your money, and that's all.

You CANNOT teach yourself to fly for \$100 – \$200

No matter what the video that may have come with the package says or shows you, you will not learn to fly with that original package. With enough patients, parts, pure luck and money, you can teach yourself to fly an electrically powered R/C plane. It will not be that original \$100-\$200 package. You will have replaced parts of the airframe, possibly tried a different power system or even purchased a charger that will actually charge your batteries correctly. Teaching yourself to fly will substantially increase your original investment!

The social aspect

Flying electrically powered R/C planes is not a

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solitary type activity. It is a social activity. Yes, there are times folks fly alone, but over the long run, it is a social activity. The passion for aviation ties those involved with this hobby together and draws them together in both physical and virtual places. There are many hobbies available to you that are solitary activities. You should really consider those hobbies if you are the "I can do anything myself" kind of person.

The bottom line is, **seek qualified help, if at all possible!** Overcome your shyness. Don't be afraid to ask questions and ask for help. You'll save a lot of money, time and frustration, and you'll make some great new friends that just might be around for the rest of your life.

Do your homework

Read as much as you can about this hobby before getting into it. There is one good book on the subject. If you get lucky, your local library might even have it. Clean and Quiet by Bob Aberle is available from Carstens Publications phone: 973-383-4064 or

<http://www.carstens-publications.com/hangar.html>

Unfortunately, this book is a few years old now, but it is still the best overview book available.

Bob also has another great book out now, Getting Started in Backyard Flying. While this is a growing and exciting aspect of the hobby, it has NOTHING to do with LEARNING to fly electrically powered R/C models. Slow flyers, backyard flyers and a lot of park flyers do not make good trainers. They do fly easily and for a long enough period of time, but they cannot fly frequently enough, because of the weather, to be good trainers.

Magazines are the poorest source of information for beginners. **Every** article published says how good a model is. You may see some slight, minor criticism, but you will never see an article that totally warns you against an unacceptable product. A magazine's revenue is totally dependent on advertising. Advertisers, or the fear of advertisers removing their ads, totally control what is published in the reviews.

While I've been criticized for saying this before, I will say it once again. If, through your research into ads, you've found a beginner's model that has been on the market for some time, and you do not find any reference or review in a national and international modelling magazine, stay away from it. The review was either never written because the reviewer couldn't find enough positive to say about it, the magazine turned down the review because it was too negative or returned it for revision. I've been criticized for saying this because maybe the magazine hasn't had time to get the product

into an evaluator's hands, maybe the evaluator hasn't had time to do the article or maybe the magazine has the review, but they haven't had the room to run it yet. That all could be very true, but more than likely, not. Why? If there were a hot, new, revolutionary product that could make a beginner into an R/C pilot quickly and inexpensively, the magazines would be all over it. They would have someone on it "right away." They'd want to be the ones to scoop this great new event in the R/C hobby. If it has happened so far, I missed that issue!

With the psychology and merchandising out of the way, it is time to define the beginner's plane.

The Characteristics of a Good Trainer

The plane should fly well. It should be quite stable when flying with no inputs from the pilot, much like a free flight model. It should, on its own in free flight, want to return to a normal flight attitude when bumped by turbulence. It should fly for 7-10 minutes. That is the length of a good training flight for a beginner. It should be able to fly well and easily with the wind in the 5 to 10 mph range without requiring an excessive amount of control inputs from the pilot, or becoming unstable because it is flying too close to an aerodynamically stalled condition. It should be large enough to be able to tell its attitude and direction at a distance, which is even farther away than you might expect. It should safely fly at a relatively slow speed to allow for the slower reflexes and unlearned skills of the beginning pilot. If the only help available is at a club that typically flies only glow models, then it should fly similarly to a glow trainer, since that is what the instructor will be familiar with.

The Power System

The power system should be able to provide the power required to fly the plane for the 7-10 minute training flights. The motor should be matched to the airframe for the task of training. The batteries should be NiCads. NiCads recharge at the field from 2 to 4 times faster than NiMH cells. You should have 3 packs for the trainer. One will be used to fly the plane, one will be cooling and one will be charging. Good training requires the maximum amount of flying in the minimum amount of time. Good training days are hard to come by and should be used to their fullest! It is very hard to match your time, your instructor's time and the weather.

The Radio

It is best to use a major brand. These include, in no specific order; Hitec, Futaba, JR and Airtronics. Radio systems by these manufacturers have discrete components that can be used over and over again. They can be combined with other easily obtainable components for new tasks. The onboard radio components should

match what is needed for safe control of the aircraft.

The trainer should have a speed control, not an on/off switch. The speed control should be reliable, easy to set up and safe to use.

The Charger

The charger should be capable of charging a minimum of 6 to 10 cell packs at a least 5 amps. It should be able to charge more than 7 cells. It should be simple to use and have a peak detector circuit. It should be able to be hooked up to the source battery directly. You do not need a charger that can plug into household current. It should NOT plug into what used to be called a cigarette lighter socket in a vehicle.

Specific Recommendations & Sources

The sources listed may or may not be the only sources available. The prices listed represent those found while writing this article in December of 2002.

If You Don't Want to "Build" the Airframe

The Push-E Cat from Garrison Aerodrome is the 1st choice. To learn more about it visit:

<http://www.rc-aero.com/kits/pushe/>

It is durable, being made of EPP foam, but durable is NOT that important in a trainer, "flyability" is. It flies well enough to be a trainer. It handles wind well. It has a pusher motor, which helps protect the motor on a less than perfect landing. The Push-E Cat site lists the various suppliers for this plane.

New Creations R/C (<http://www.newcreations-rc.com>) lists the sale price as \$69.95.

Plane Stats:

Wing Span: 58 in.

Wing Area: 384 sq.in.

Airfoil: E205

Weight: 25 oz.

Wing Loading: 9.4 oz/ sq. ft.

Controls: Rudder/Elevator/Throttle

Radio choices:

Acceptable: Hitec Focus 3 3-Channel FM/555 Rx/2 HS-81 Servos Tower Hobbies #LXWB67 \$104.99

Recommended: Hitec Laser 4-Channel FM Glider/2 HS-81 Servos Tower Hobbies #LXANT7 \$139.99

Speed Control:

Acceptable: Kontronic Rondo 400 Northeast Sailplane \$29.95

Recommended: Astro Flight 215D Tower Hobbies #LXNL14 \$44.99

Power System:

Graupner Speed 400 7.2V Motor #1794

(or equivalent, NOT the 6.0 volt motor.) Source – lots of places including local hobby shops

New Creations R/C: \$8.90

6x4 Master Airscrew Prop Source – lots of places including local hobby shops Tower Hobbies #LXZ947: 2 for \$2.89

9.6V Battery Pack (8-cell) Choices:

Acceptable: Sanyo KR-1400AE Diversity Model Aircraft \$38 each = 3 for \$114

Recommended: Sanyo CP-1300SCR Diversity Model Aircraft \$52 each = 3 for \$156

The price for the packs can be reduced by making your own packs, but the beginner might find this difficult, so pre-made packs are used in the example.

B&T Racing Products lists single KR-1400AE cells at \$3.50 each and CP-1300SCR cells at \$3.75 each.

Wire and connectors would have to be added so a KR-1400AE 8-cell pack would be about \$30 a pack and the CP-1300SCR 8-cell pack would be about \$32 a pack. The 1400AE pack from Diversity seems reasonably priced. It would be a good idea, if you know someone who can build packs, to build your own CP-1300SCR packs.

Why use the slightly heavier (0.14 oz./cell) and slightly lower capacity CP-1300SCR cells over the lighter KR-1400AE cells? It comes out to flights per hour. The KR-1400AE cells can only be charged at about 2.8 amps. That means only two charges per hour. The CP-1300SCR can be charged at 3.9 amps or 3 charges per hour, or even 5.2 amps or 4 charges per hour. The capacity difference is so small as to not come into play. Using the CP-1300SCR cells allows more flights per hour at the field. The CP-1300SCR cells can also deliver more "power" when necessary, because of their lower internal resistance.

Charger:

Acceptable: Hitec CG-335 Multi-Peak Charger Tower Hobbies #LXN747 \$89.99

Recommended: Astro Flight 110Deluxe Tower Hobbies #LXDJN0 \$117.99

The Bottom Line

Using Acceptable recommendations: \$421

Using Recommended recommendations: \$541

While this is a hand-launch type plane, most competent glow instructors would have no problem instructing with this plane.

Absolutely Have to Teach Yourself

Use the Push-E Cat setup and add a computer R/C flight simulator like Cockpit Master (<http://www.cockpitmaster.com>). You want the standard version, not the Backyard version. The downloadable version is

\$49.50 plus the interface cable that will work with your transmitter \$27.50. Find a HUGE open area where there are absolutely no other people or objects. After many, many hours on the R/C flight simulator, go to that HUGE open area with winds below 10 mph and give it a try. Be ready to crash many times, and possibly lose your investment with a flyaway because you've become disoriented. Teaching yourself to fly will substantially increase your original investment!

Sky Scooter Pro II or Sky Scooter Pro 2

This is a second choice set-up if don't want to build, and seems to fall into the category I do not recommend. It is available from Tower Hobbies #LXCTE7 \$169.99. I don't like the Focus 3 AM radio, but it will work for you. I really don't like the charger that comes with it, but it will work for you. You'll need dry cells for the transmitter. You'll need two more battery packs, from Tower Hobbies #LXVB79 at \$26.99 each, \$53.98. You should immediately replace the Tamiya type connectors with Anderson Power Poles, Tower Hobbies has them listed as DuraTrax Powerpole Connector (2 Pair) #LXD175 \$3.49. Two packages are needed, \$6.98.

Bottom line, about \$240 by the time its ready to fly. In reality, you will want to immediately replace the charger, so using the Hitec CG-335 adds another \$89.99, bringing the cost to about \$330.

Plane stats:

Length: 31 in.

Wingspan: 32 in.

Wing chord: 12 in. at root, 5 in. at tip

Wing area: 276 sq. in.

Controls: Ailerons/Elevator/Throttle

Want to Build the Plane?

The first choice is the SR Batteries Cutie. Yes, you can build this plane if you've never built anything before. It is the perfect kit with the perfect instructions for the beginner. You could search around for better prices on a few of the items, but I'd recommend that you get a lot of what is listed on the SR Batteries Cutie page, plus 2 extra battery packs, not just one. I'm sure Larry would be willing to cut you the same deal on the 2nd extra battery pack. In addition to the items that Larry lists, you'll need single-edged razor blades, CA glue and a covering iron.

Here's what you'll need from Larry:

The Cutie kit: \$119.95

Power System: \$169.95

2 Optional additional battery packs: \$55.95ea = \$111.90

5/64" Ball Driver: \$3.95

Total for SR Batteries: \$405.75

Other:

Charger:

Acceptable: Hitec CG-335 Multi-Peak Charger Tower Hobbies #LXN747 \$89.99

Recommended: Astro Flight 110Deluxe Tower Hobbies #LXDJN0 \$117.99

Radio System:

Acceptable: Hitec Focus 3 3-Channel FM/555 Rx/2 HS-81 Servos Tower Hobbies #LXWB67 \$104.99

Recommended: Hitec Laser 4-Channel FM Glider/2 HS-81 Servos Tower Hobbies #LXANT7 \$139.99

Other Acceptable total: \$195

Other Recommended total: \$258

Misc.:

2 rolls of TowerKote: \$5.99 ea = \$11.98

Top Flite Sealing Iron #LXHZ17 \$16.99

Great Planes Pro CA Glue 1 oz. Thin #LXK282 \$3.99

Great Planes Pro CA+ Glue 1/2 oz. Medium #LXK285 \$2.99

Single-edged razor blades (local)

Misc: total: \$36

Bottom Line:

Acceptable: \$637

Recommended: \$700

Plane Stats:

Span: 46"

Wing Area: 360 Sq. In.

Weight: 27 oz.

You will want an instructor. You now have an emotional investment in this aircraft as well as large monetary investment. Any glow instructor can handle this plane, and it will take off from short, mowed grass.

The Amptique

The second choice would be the Spirit of Yesteryear Amptique. The kit is good, but not as good as the Cutie with its laser-cut parts and fantastic instruction sheet, but it is still very "buildable" by a beginner.

Amptique kit: New Creations R/C #SY0704 ... \$55.95

Power System:

Master Airscrew - Motor/gear-drive/prop: Tower Hobbies Master Airscrew 2.5:1 Electric Flight Pack #LXZ905 \$31.99

3 ea Sanyo CP-1700SCR 7-cell packs Diversity Model Aircraft \$48 each = \$144

Anderson Power Poles, Tower Hobbies has them listed as DuraTrax Powerpole Connector (2 Pair) #LXD175 \$3.49 (and wire for motor - not included in pricing)

Charger:

Acceptable: Hitec CG-335 Multi-Peak Charger Tower Hobbies #LXN747 \$89.99

Recommended: Astro Flight 110Deluxe Tower Hobbies #LXDJN0 \$117.99

Radio System:

Acceptable: Hitec Focus 3 3-Channel FM/555 Rx/2 HS-81 Servos Tower Hobbies #LXWB67 \$104.99

Recommended: Hitec Laser 4-Channel FM Glider/2 HS-81 Servos Tower Hobbies #LXANT7 \$139.99

Other Acceptable total: \$195

Other Recommended total: \$258

Misc.:

2 rolls of TowerKote: \$5.99 ea = \$11.98

Top Flite Sealing Iron #LXHZ17 \$16.99

Great Planes Pro CA Glue 1 oz. Thin #LXK282 \$ 3.99

Great Planes Pro CA+ Glue 1/2 oz. Medium #LXK285 \$2.99

Single-edged razor blades (local)

Misc: total: \$36

Bottom Line:

Acceptable: \$467

Recommended: \$530

Plane Stats:

Wingspan: 61"

Wing area: 518 sq. in.



Sky Scooter Pro 2 (above) and Push-E Cat (below)

Pictures of the Planes

Amptique (above) and Cutie (below)

**Sources: Web sites & Phone numbers**

Carstens Publications:

<http://www.carstens-publications.com/hangar.html>

Phone: 973-383-4064

Garrison Aerodrome: <http://www.rc-aero.com/kits/pushe/>

Phone: (330) 220-1968

New Creations R/C <http://www.newcreations-rc.com>

Phone: (936) 856-4630

Tower Hobbies <http://www.towerhobbies.com>

Phone: 800-637-6050



Northeast Sailplane: <http://www.nesail.com>
Phone: (802) 655-7700

Diversity Model Aircraft: <http://www.flydma.com/>
Phone: (858) 693-8188

B&T Racing Products: <http://www.rc-aero.com/biz/bandt/>
Phone: 919-471-2060

Cockpit Master: <http://www.cockpitmaster.com>
Phone: 615-373-1444 this will get you Hobby Lobby,
where you can order the CD-Rom version

SR Batteries: <http://www.srbatteries.com>
Phone: 631-286-0079

There are many other great sources for these products. I've listed ones that I've dealt with personally, or that I know have a good reputation. I've flown, instructed, or have very good second-hand knowledge on all four of these planes, and I cannot recommend them highly enough.

Summary

1. Don't enter this hobby/sport on a whim.
2. Be sure you have the means to do it right, or don't do it. Be realistic about the amount of money it takes to get involved in this hobby.
3. Don't expect to get everything you need from one source.
4. Hobby shops, distributor Web sites and magazines are NOT trusted sources for information about the products they sell or advertise.
5. You need an instructor to do it right. Teaching yourself to fly will substantially increase your original investment!
6. You need a large, safe flying area, preferably an AMA sanctioned club site.
7. Be very selective in your reading to learn about this hobby.
8. Seek the advice of people already involved in the electric flight aspect of this hobby.
9. Have 3 NiCad packs available for your trainer to maximize your training time at the field.

If you think I've been on a rant, I apologize. I'm just tired or beginners being taken advantage of. For further reading on this topic, I recommend the "Radio Control Electrics" column by Bob Kopski, page 97, *Model Aviation*, January 2003.

Remember the Charger is in all of these packages!

Look at the bottom line pricing again. In your mind, remove about \$100, as the bottom line pricing includes your initial purchase of a decent charger. Also, if you build the plane yourself, several of the "building" items will be used on future projects. Keep this in mind, when comparing the build-it-yourself kits.

A Note to All of My Supplier Friends

I apologize for not including all of you! I wanted to keep this piece as simple as possible for the beginner, who really can't buy it all in one place. Rest assure yourself that if I've bought things from you, flown with you or know your good reputation, you are high on my recommendation list when I'm asked specific questions and "who can/should I get this from?"

An Ampeer Correction and The Saga of Astro Flight 803V

By Ken Myers

In my article "Powering the JM GlasCraft Cheap Thrills" in the December 2002 *Ampeer*, I mistyped the weight of the FMA Extreme 5. It should have been 0.4 oz., not 0.04 oz. Thanks Bernard! I used the correct weight when doing the figuring.

While doing the article I ordered the Astro Flight 020 brushless with sensorless controller. It is known by the Astro Flight part number 803V. Tower Hobbies had the 020 brushless 803V listed on their site with the AF number being the 803V, but the written description matching the old 020 sensed unit. I took a chance and ordered it. I figured they just hadn't changed the written description. Wrong! It was the old, sensed version, delivered in a broken Astro Flight box. It was not the one I wanted, or counted on using in the Cheap Thrills project.

I returned the motor with the request to either send the correct motor or refund my money. I'd also requested that they let me know what they were going to do via email, so that I would know to look elsewhere if they didn't have it.

Fortunately, this is not a get it done quickly and fly it project, as I've been blowing the snow off the driveway today. It has snowed about 3" and is continuing as I write this.

About two weeks passed and still no word. The correct motor showed up about two weeks from the time of my return. I'm happy to have the motor for my project. I'm unhappy that someone at Tower Hobbies couldn't take two minutes to let me know what was

happening.

Will I still deal with Tower Hobbies? Yes, because most of my purchases are for covering, servos or things like that. Will I make a "major" purchase from them? Only if I think time permits, and I feel the savings are worth it.

December EFO Meeting

The meeting started at Ken's house about 7:00 with Manwich pizza, potato chips, pop (provided by Howard Shorr – thank you) and cookies (provided by Dave Stacer – thank you). After a little eating and a lot of chatting, the folks left for the Oakland Yard at about 8:30, where many of the EFO members flew.

It was a very enjoyable evening and a whole lot of fun.

On a personal note, I flew my SR Batteries Bantam with the FMA *Extreme 5*. With the original receiver (GWS/MPI) the plane weighed 8.3 oz., and with the *Extreme 5* 8.5 oz. There was no noticeable flight performance difference, except it was flyable in the very

crowded physical and RF environment of the dome. It was great to see Don Belfort from Cincinnati too!

Up Coming Events 2003

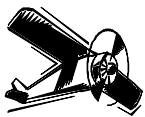
Jan. 2 - Thursday EFO meeting at Ken Myers's house for light refreshments, 1911 Bradshaw Ct., Walled Lake, MI 7:30 p.m. Everyone who can make it is welcome, not just EFO members.

Feb. 14, 15, 16, & 17 Hitec San Diego Mid-Winter Electrics, presented by the Silent Electric Flyers of San Diego and Hitec. The West Coast's largest Electric Airplane event is to be held in sunny San Diego, CA. You can enjoy up to 4 days of electric airplane flying at the Mission Bay site.

For event information, schedules, accommodations or a pre-registration form, see www.sefsd.org or contact Bill Everitt at: 760.753.1055 or email billeveritt@cs.com or call Glen at 858.748.6948 x310

Events:

Saturday: Sky Scooter "all up/last down", Sunday: Dr. Jet's Dreaded Limbo Combat, Sunday & Monday: S400 Pylon Racing 1/2 A course



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

The Next Meeting:

Date: Thursday, Jan. 2 **Time:** 7:30 p.m.

Place: Ken Myers's house: 1911 Bradshaw Ct., Walled Lake, MI
All interested folks are welcome to join us