

Ampeer

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President: Ken Myers 1911 Bradshaw Ct. Walled Lake, MI 48390 phone: (248) 669-8124	Vice-President: Richard Utkan 240 Cabinet Milford, MI 48381 phone: (248) 685-1705	Secretary/Treasurer: Debbie McNeely 4733 Crows Nest Ct. Brighton, MI 48116 phone: (810) 220-2297
Board of Directors: Jim McNeely 4733 Crows Nest Ct. Brighton, MI 48116 phone: (810) 220-2297	Board of Directors: Jeff Hauser 18200 Rosetta Eastpointe, MI 48021 phone: (810) 772-2499	Ampeer Editor: Ken Myers 1911 Bradshaw Ct. Walled Lake, MI 48390 phone: (248) 669-8124
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What's In This Issue:

Zagi – RCB Delta – TF Elder – Thyng's Latest – Gee Bee S400 – Lots o'Ratings – Jr. Falcon
 Rebirth – Get a Zipper – February Meeting – More on Gearing – Shorts Skyvan –
 New Hitec Receiver – International Covering Material info – upcoming events

Another Zagi

Jean Vautrin, 9916 Fleming Ave, Bethesda
 MD 20814
 Phone: (301) 493 6983
 Email: vautrin@codon.nih.gov

Have you heard of people putting a 400 on a Zagy (slope combat EPP foamie)? I have done it and am surprised by the result. 3-blade Cox pusher, 8x500, speed range impressive, lands in your hand, 10 min or so (2 pack constant flying wears you out), Aerobatic and still able to thermal, can't hurt, can't be hurt. It's my best fun/price ratio.

(Sounds great. Enjoy, and thanks for sharing with us. Km)

Delta 400 Kit Review

By Grant Calkins
 3030 Winding Ln., Westlake Village,
 CA 91361
 (805)495-7344
 Email: CasinoOp@aol.com

The Delta 400 is a small delta wing using Speed 400 in direct drive with folding prop and 7x500 mAh cells. WS 21", length

16", all-up weight 15.5 oz. Flat bottom with finger holes, plane is hand launched at full motor speed. First few seconds a little iffy as the delta gathers speed, but then it becomes an excellent and stable flyer. Flights are 5 minutes using speed control. Elevons set with 2 micro servos, ESC is the excellent Pixie 14 (with BEC) from Castle Creations. Rx FMA Tetra required due to very small space. Verticle fin removal is a good feature for traveling with this plane. Plans are fairly incomplete, instructions even worse, so you have to wing-it through much of the build, but result is a fine flying little electric delta. 3.5 stars (***.5) would be 4.5 with better documentation.



New Product Releases from Great Planes

Received via email from: HROSE@hobbico.com
(Heather Rose)

BalsaCraft, 2904 Research Rd.,
Champaign, IL 61826-9021

Phone: (217) 398-6300 Fax: (217) 398-0008

**THESE SPORT/SCALE KITS BOAST
EXCEPTIONAL QUALITY AND VALUE**

A well-respected line of R/C planes in England for several years, Model Designs by Balsacraft is now in America as an exclusive line of Great Planes. These easy-building kits are ideal for intermediate and advanced modelers, and are sized so that they can be kept in the car for spontaneous flying. Besides being easy to assemble, these models feature quality parts and superb stand-off military styling at a very affordable price.

All kits in the line use competition -grade balsa, and are fully sheeted to enhance the finish quality; plywood parts are CNC precision -routed, for a clean cut without crushed edges. CAD-drawn plans, interlocking construction and clearly labeled wood parts take the guesswork out of assembly. Each plane comes with molded plastic parts, including a pilot figure, that adds to the detail.

These models are designed to be flown with electric power (preferably a Speed 600 direct-drive motor).

To preserve the planes' scale lines and improve flight performance, Balsacraft has eliminated the need for landing gear by designing these kits to be easily hand -launched by way of a special grip built into the fuselage.

Initially there are four different kits available: the Hawker Hurricane, the Hawker Sea Fury, the Grumman Bearcat and the Bristol Blenheim Twin. More releases will be coming in the spring.

Specifications

Hawker Hurricane Wingspan: 46 in (1168 mm);

Weight: 49 oz (1389 g)

Hawker Sea Fury Wingspan: 48 in (1219 mm); Weight:
49 oz (1389 g)

Grumman Bearcat Wingspan: 45 in (1143 mm);
Weight: 50 oz (1417 g)

Bristol Blenheim Wingspan: 60 in (1524 mm); Weight:
66 oz (1871 g)

Required for Electric Power: Speed 600 electric motor,
speed controller, 7-8 cell battery pack (1700- 2000mAh),
propeller, adapter, 4-channel radio

Note: Bristol Blenheim requires 2 motors/engines.

BLCA0101 Grumman Bearcat \$129.99

BLCA0102 Hawker Hurricane \$129.99

BLCA0103 Hawker Sea Fury \$129.99

BLCA0201 Bristol Blenheim Twin (no price at release date)

(The following is a comment I picked up on the eflight list run by Jim Bourke. You can get on the eflight list by visiting Jim's site at <http://www.ezonemag.com> KM)

Terry McGill – (talking about previously imported versions) I bought two of the models, the Bearcat and the Sea Fury...but did not get the CNC

parts offered at the time. Good looking models; reports from England are that they are all great fliers. The twin is on my list, but you know my list....

Snoopy Claus Takes to the Sky, Quietly

From: Jim Jager email: jimjager@hotmail.com
5207 Mt. Olivet Dr., Parchment, MI 49004

Merry Christmas from Snoopy Claus and the Red Baron (who was kind enough to loan his aircraft to Snoopy on Christmas eve, so that Snoopy could deliver presents all over the world). *(Okay, you can see I'm running a little behind. KM)*



The aircraft is a just completed (12/21) TopFlite Elder 20, powered by a geared (Liesure 2.5:1) Astro Flight 035 and 7 cell 1700SCRC packs. All up weight with 1 ounce removable (velcroed) Snoopy Claus is 50 oz., first (and only, thus far) flight lasted 8 minutes, with power to spare.

Modifications were made to keep the weight down and clean it up aerodynamically just a little, most noticeable was the decision not to add the 3/4 round, balsa cowl. Provisions are made to add an optional, removable Coke bottle cowl later.

In order to make the wing easily removable for exchanging battery packs, I installed nylon threaded studs in the fuselage and use nylon wing-nuts (isn't that why them call them wing-nuts?) to hold the wing on (see close-up).

Snoopy was originally a hanging Christmas tree



Rough numbers say it should fly well.

Gee Bee Model D Speed 400 Powered

From: cbcian@prcn.org
Carlo Ciarniello
4037 Joyce Ave.
Powell River, B.C.
Canada V8A-2Z2

As promised here is a zipped version of the DXF drawing for the speed 400 powered Gee Bee Model D. You indicated that the zipped DXF file was the most popular download for the W-1 plans so this time I will only send

ornament, and was purchased along with Charlie Brown (ground crew) and Lucy (nurse) for about \$7.

I also have the optional Elder Float kit, which I will construct very soon. The floats would also work very well on snow (which we suddenly have lots of right now).

I will send a plane rating on this aircraft when I have more opportunity to evaluate it's flight performance, right now it seems like it could be a 4 star rating. Take off from grass easy, and climb-out was good. Loops from level flight have been performed. And of course, landing was a cinch, slow, predictable, and right on the money.

Dr. Walter I. Thyng: Latest Project

From: docwt@worldpath.net

(Hope you all remember Walt's E-Hog conversion from a Sig kit. It was done up in similar colors to his H-Hog (Harley, ya remember?) KM)

Thought I'd give you a little info on my latest. It is a Midwest Mustang 60 with Robart Pneumatic retracts, dual aileron servos (flaperon option), finished in a Bob Hoover-like scheme. The final power system is not yet settled (Tom Cimato and I are discussing g/b ratios), but with my MaxCim, MEC superbox and 18 2000mAh cells it weighs just under 8 lbs., which shouldn't change. I'm a little disappointed in the weight, but I did not re-engineer as radically as I did with my E-Hog. No flight info yet --too cold!

My next project is a 1/4 scale Bud Nosen Citabria. I picked it up off a consignment table at a shop in Illinois. I traded a few bucks and a couple of out of service planes for a geared Astro 60 to go in it.

you this type of file. *(It is now posted to the EFO site on the Keith Shaw, Tom Hunt, et al page. KM)*

A note of caution. I have not had the time to build from the above plans. However it was designed on sound RC design principles and I am confident that it will fly well. I will be eager to hear from the first person to build from these plans and to know how they made out.

The forward half of the Gee Bee is made up from blue or pink foam insulation then covered with brown paper (3M masking paper). This allows the contours and the fillets to be made in a scale manner. I know this works extremely well as this past summer I built a 1/7th scale Hawker Hurricane using the blue foam and brown paper exclusively (not complete yet and no plans).

When I first started selling plans for RC aircraft I thought it would be a good way to support my hobby. As it turns out, not that many plans are being sold (none in the last 10 months). However I get just as much satisfaction hearing from people who have built from my free plans. I hope time permits and I will send you more plans for free, if you will take them. *(You bet!)*

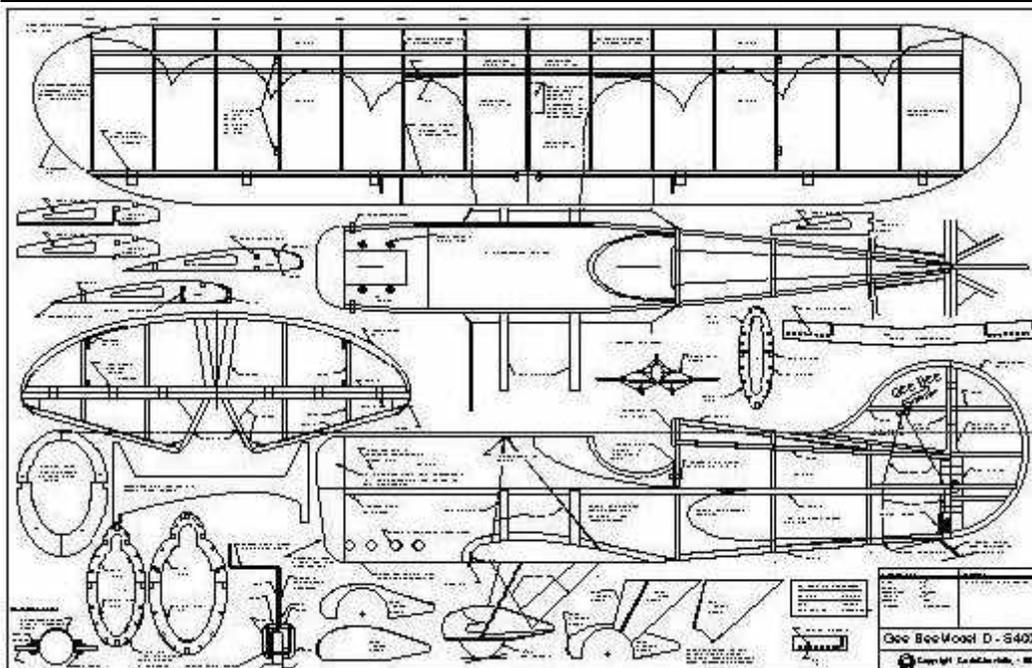
Many Thanks, Carlo Ciarniello

(Note: plan photo on next page. KM)

Plane Ratings

From: Dave Chewing iefly@aol.com
5732 Leon Rd., Nashville, NC 27856
Phone: 252-937-6869

I've been flying electric for about 15 years (off and on), and have just recently decided to get a computer and join the modern world. I've had to learn mostly on my own, and smoked more than one motor in the process.



fins, and no rudder. 16 turn car motor, 3.5:1 MA gearbox, 9x6.5 Aero-naut prop and 8-1700SCRC cells. Excellent plane, good aerobatics, outside as well as inside, flies inverted easily, duration is superb, 8 to 13 minutes. This includes loops, rolls, stall turns and the occasional bounce and go on the shorter flights. Of course the longest flights are mostly just cruising around the sky with only a few power intensive maneuvers. My favorite plane so far.

I'm still waiting for that 5 star plane to come along.

A Few More Ratings

From Brad Evenson email: bevenson@sprintmail.com

I recently found your site and have greatly enjoyed it. I'd like to give you a few plane ratings of my own and I hope you can use them on your web site.

WASP: (RCM plans) *** Astro cobalt 05 direct drive on seven cells, 1200 mAh, 7x4 and 7x6 props. A good flier. Built from RCM plans, which became the Leisure kit.

PIECE O'CAKE: *** Leisure 05-pattern wind, direct drive, on six cells, 1200 mAh, 8x4 prop. Thick airfoil made for slow gentle flight.

GENTLE LADY: *** Astro cobalt 05 direct drive, seven cells 800 mAh, 8x4 prop. ***. Same plane, Astro cobalt 05 geared, seven 800's, 12x8 folding prop. Better climb rate, same glide.

AVISTAR 40 ARF: **** Astro cobalt 40 direct drive, MA 10x6 prop, 18-1400SCR cells, easy take off from mowed grass fields, good climb, moderately aerobatic. About 6 1/2 lbs. A real easy introduction to larger electrics. Same plane with a geared Astro 40 cob alt, 12x8 prop, and same cells flew about the same but with better verticals and longer duration.

SENIORITA: **** Astro super ferrite 40 geared, 18-1700SCRC cells, modified to shoulder wing, ailerons, tail-dragger. Flew great, quick takeoffs, excellent slow flight, moderate aerobatics, and 6 to 10 minute flights.

GENTLE LADY: **** 16 turn car motor, 3.5:1 MA gearbox, 12x8 folder, and 6-1400SCR cells, climb as good as my Astro cobalt 05 geared but at a much lower amperage, thus more climbs and longer flights.

CALIPH: **** The Ted Davey kit, but much modified, shoulder wing, ailerons, no landing gear, triple vertical

I have a couple of new plane ratings for your site and some information on my latest project. I've included pictures of Mini-Viper and the Cloud Dancer.

Mini-Viper, Graupner *** 1/2



SP400 6V motor, APC 4.75x4.75 prop, 7 x 500AR cells, Viper MD102 ESC, Hitec 535 RX with Maxx Products MX-50 servos, flying weight about 17 oz. An excellent Graupner kit that's easy to build. It's not really competitive with the current crop of pylon racers, but it makes a great sport plane that's not a handful to launch and land and is rugged enough for rough fields. Plenty of room inside for the radio gear and battery. Unique

Motor Prediction Table Using a Cox 7x3.5 Prop

Motor	Mtr. Wt.	Batt. Wt	PS wt. Est.	fight Amps	RPM	MPH	Watts out	Efficiency
Speed 500BB 8.4v Race	6	9 (6 1000SCR)	15	6.77	19.5	12910	45	95
Speed 400 7.2v with 2:1 gearing	3.8	9.28 (13 500AR)	13.03	6.6	10	13078	46	98
Aveox 1406/3Y	6.9	9 (7 800AR)	15.9	5.87	18	13480	47	109
Aveox 1114/4Y	6?	9 (6 1000SCR)	15	5.81	22.7	13034	46	97
Astro Flight 035	6.5	9 (6 1000SCR)	15.5	5.74	23	12766	45	93
Magnetic Mayhem	7	9 (7 800AR)	16	5.62	18.8	13277	46	104
Speed 500BB 7.2 #3305	6	9 (6 1000SCR)	15	5.4	24.4	12783	45	93
Goldfire	7.6	9 (7 800AR)	16.9	4.84	21.8	12912	45	99
Speed 600 7.2v #1793	8	9 (7 800AR)	17	4.74	22.3	12855	45	94
Speed 600 8.4v #6312	8	9 (7 800AR)	17	4.65	22.7	13495	47	109
Speed 500 8.4v #3315	6	9 (7 800AR)	15	4.38	24.1	13420	47	106

looking in the air with it's forward swept wing.

Incidentally, I really like the new APC props, they don't break as easily as the CAM props and I get more run time on the Mini-Viper with them.

P-38, Ryan Aircraft ****

SP400 7.2V motors wired in series, Graupner 6x4 props, 16x600AE cells, Viper MD100 ESC, Hitec 535 RX and HS-80 servos, flying weight about 40 oz. A nice flyer that builds fairly easily, the laser cut pieces are superb. Worth building just for the sound of those 2 motors singing along. I always get comments every time it's flown. One minor gripe: no cooling for the batteries is provided, they get really hot in the center pod.



Ace Cloud Dancer

Here's a picture of my latest project, yes it's yet another Cloud Dancer 40. This picture was taken just before I glued the nose blocks on. The motor is an Astro 25G in a Pasquito motor mount. I plan to use sixteen 1400SCR cells in it.

The kit I purchased had reasonably light wood, so I didn't make any substitutions. I decided to save weight elsewhere by using a 270 mAh receiver battery and a Hitec 535, one servo in the wing instead of two, and Kavan's light wheels. Flying season's still a couple of months (*Written in January and it has flown very nicely now. KM*) away here in Northern Illinois, so I've got plenty of time to finish it. I'll let you know how it flies.

Keep up the good work on the Ampeer. I'm looking forward to Mid-Am '99!
Regards,

Junior Falcon: Rebirth of a Classic

By Ken Myers

A few months ago I shared pictures, in the *Ampeer*, of my 1971 glow version of the Carl Goldberg Junior Falcon. Having a new 1975 version of the kit in the basement, I decided it was time for this smallest member of the Falcon family to take to the air again.

At first I just toyed with possible power systems in my mind, and then I decided that I should "archive" this kit for the future. I spent the better part of a week's vacation, drawing up the parts layout in CAD, using Ashlar DrawingBoard. This was a very time consuming task! I felt it necessary, so as not to lose this great plane.

Next I took a serious look at power systems. (See the chart above.) As you can see from the chart, there were several possible choices to make. As always, it is always a tradeoff. The power systems are arranged by flight time predictions. While the predictions may not be 100% accurate, they were all done the same way, using

my motor comparing spreadsheet. Therefore, apples were being compared to apples. Of course, the comparisons are only as good as the data that I worked from, which I've really begun to question.

You will note that I set about a 16 ounce battery and motor weight limit, as I really don't want the plane to exceed 32 ounces, ready to fly. The 1st motor on the list doesn't appear to be available anymore, but when it was, I believe that it was headed toward the \$100 mark for a ferrite, but as you can see, it was very efficient.

The second choice using the Speed 400 7.2v looked interesting, and I might give it a try sometime, but I've found that "predicting" these Speed 400 motors is difficult, with the predictions being "way off." Also, the apparent weight savings would be offset by having to use a 2 oz. 250/270 mAh receiver battery, instead of the planned for BEC type ESC.

Both Aveoxes looked very good, and I'd recommend the 1406/3Y to folks entering electric flight, as it is a very versatile motor and can be used in many future projects. One example of a future project might be an 84 – 100 ounce sport or sport scale model using an 11x7 prop. This motor, with the 3.7:1 gear box would turn about 9200 RPM with a "typical" 11x7, 64 MPH (depending on airframe of course), pulling 28 amps using 18 cells. From 2 pounds to 6.25 pounds is a pretty nice spread, and of course, it could be increased and decreased with various gearing and cell combinations. The example was presented to explain why I feel such an "expensive" motor is a very good investment.

Since I have the Magnetic Mayhem, Goldfire and AF035, those became my motors of choice. I decided to run each with an appropriate pack and the Cox 7x3.5 prop to see how close each prediction was.

The Goldfire, without the flux ring on 7 500ARs ran 20 amps, 12,790 RPM and 7 1200SCRs ran 20.3 amps and 12,900 RPM. The prediction was 21.8 at 12,912. I didn't have a pack of 800ARs made up, but looks like the prediction is close enough.

The Magnetic Mayhem on 7 500ARs ran at 18.6 amps and 13,000 RPM, while on the 7 1200SCRs it was at 20 amps and 13,330 RPM. The prediction was 18.8 and 13,277. Again, with 800ARs this should be right in the ballpark.

An interesting note is the difference between the 500ARs and 1200SCRs. Batteries do make a difference!

The AF035 on 6 900SCR pulled 22.8 amps at 12780 RPM, while the prediction was 23 amps and 12,766 RPM.

The battery pack weights are actually measured, except for the 13 500AR cells. The 500AR weight is a

prediction, as I didn't happen to have a 13 cells pack handy, but used the 7-cell pack for reference.

The Cox 7x3.5 prop was chosen because I expect the plane to weigh between 30 and 32 ounces. My prop diameter recommendation (see last month's article) worked out to be: $32 \times 1.25 = 40 / \text{Pi} = 12.73$. Square root of $12.73 = 3.57 \times 2 = 7.14$ or a 7 inch diameter. A 5 pitch would fit what I mentioned last month, but I have several Cox 7x3.5 props. They work well. This is/was a trainer so the 3.5-inch pitch should be appropriate here.

The next task was to archive the plans to CAD. Right off the bat, there was a problem. The pre-notched leading and trailing edge did not match the plan on the wing or horizontal stab. The problem was not expansion or contraction of the plan, but the 1/16" slots were not true 1/16". As close as I could guess, they were 5/64". If you do just a little math, you can see that there is quite a bit of difference within 5 or 6 ribs. The spacing between ribs appeared accurate, only the slots were off.

It was my original intention to build both the kit using electric and an electric only tail-dragger version, but when the choice of power system eliminated most of the firewall, where the nose wheel attached, I decided to only build the electric recreation of my 1971 version, as it was a tail-dragger. I also decided to omit any steerable tail wheel, as a hand-launch would be the best way to save valuable power for flying.

When I put a Goldfire motor on the CAD plan, it became apparent that the front top hatch would also have to be modified to keep the same motor downthrust angle.

My electric plans do not have the original detachable tail. The original tail was rubber banded on, and I doubt many modelers actually ever used it on a model of this modest size.

The original fuselage used interlocking parts to help keep the fuselage squared while building. The simplified electric version doesn't use this system, so care had to be taken to keep everything squared up while building the fuselage.

The motor mount proved harder to overcome than I had anticipated, since I really wanted to maintain the flavor of the original front end. I drew in several kinds of mounts, including the Kopski and wrapped plywood tube. None seemed right for this situation. I'm not sure that I have come up with the best solution. Time will tell.

Once the fuselage was in CAD, it was time to start building, as the wing and tail-feathers were going to be stock.

As I was not going to be able to make an exact copy of the original, I also decided to add a bay to each wing

panel.
More later.

Lash Correction:

From: Russ Cordell
email: R_CORDELL@worldnet.att.net

Russ: I just read the article on suggested setting of lash on the NEW Astro gearboxes. When you say NEW, do you mean the helical cut gears versus the old straight cut gears?

Ken: Sorry I wasn't clear. Yes, the helical cut gears. I forget that not everyone was around when the straight cut gears were used and referring to them as new and old wasn't probably a good choice of words. Hope this clears this up.

Where to Get a Zipper Old-Timer

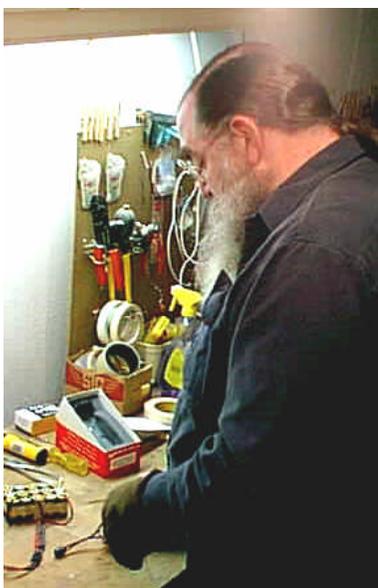
From: Bill Lewis email: wplewis@flash.net

Bill had written looking for a source for this kit. km

Ken -

I found a kit with machine cut or finished parts by P&W Model Service. It's a good thing they weren't snakes or I'd be dead by now. They are available from DARE Hobby Distributors who advertise on the inside front cover of Flying Models. The next-to-last item in the P&W section. They even identified a hobby shop about 10 miles away from me! Thought you might like to know for future use. Thanks for your efforts.

Sincerely, Bill



The February Meeting

The February meeting was held at Ken's house. The main theme of the evening was timing the large Astro Flight motors. Keith Shaw demonstrated how it is done and did several 60s and a 90.

Ken demonstrated how he has been gathering motor data.

Richard Utkan shared some info on his B-2 from Hobby Shack and even ran up the motors.

Paul Bradley was a guest. Paul was up from Texas on business, and it was really nice to have him here. The members also watched a video from Glenn

Stucker on several of his multi-foamies. Very interesting. We also watched a part of the old video "Power for Performance", featuring Keith. Hard to believe that it is over 10 years old now!

Refreshments were served, and it was a pretty good evening for all.

Some Corrections to Gearing Up for Spring

From Bernard Cawley 75613.2621@CompuServe.COM

It has been my pleasure to share information with Bernard for the better part of a decade. The newsletter he edits has been a major source of great information for the Ampeer since its beginning. I always appreciate his input. Here's the info from Bernard.

The Mini-Olympus S400 gearbox is a GEAR box, not a belt drive. It's one that requires a bit of fussing to make work smoothly, too.....

The MEC small planetary gearboxes are gone - sold out.

You missed the most common spur gear size for MEC gearboxes: 60T. It is this one, coupled with a 10T pinion, that is the "standard" 6:1 ratio on their Turbo 10 systems.

What's a "MaxCim Nano-15"? (from bottom of MEC discussion). MEC also resells the MaxCim MaxNEO motors under the MEC "Turbo 10-20 brushless" label.

Okay, the Nano is the one that Tom decided not to market, since it ran down the battery in an extremely short time, but was really powerful. Of course I meant the Neo-13, oops, and where the number 15 came from, I've no idea! Km

Specialized Model Supply

P.O. Box 1336

Crystal Lake, IL 60039-1336

www.rc-aero.com/biz/smsupply

E-mail: smsupply@rc-aero.com



Greg Kamysz has a nice gearbox for Speed 400 motors. It is available with ratios of

1.72:1 and 2:1. It features all metal construction, setscrew pinion gear and prop adapter and weighs 0.9 oz. Steve can add bearings to it for \$5.00 per gearbox. It is made for Maxx Products. It will be redesigned to allow larger ratios, possibly up to 3:1 and to make it more compact, standard with bearings. He can also get the larger 05 gearbox of similar style.

Cermark Gearbox

From: Steve.Ciambrone

email: Steve.Ciambrone@OS.L-3com.com

Hi Ken,

I just looked over the March Ampeer issue and what a lot of information to read. Nice job.

If this is a continuing topic (*it is km*), Cermark has just introduced a Speed 400 size gearbox with all metal gears. Included is the assembled gearbox, prop adapter, motor screws (socket head style) and two pinions. The gear ratio can be changed to either 2.1:1 or 1.6:1. The pinions are retained with set screws and easily changed. The propeller shaft has bronze bushings.

I did some bench runs with a Speed 400 6v motor on 7 cells and the box works pretty smoothly. Noise is at a minimum. On 7 cells and 8-4 APC prop with the 2.1:1 ratio, current draw was 9 amps.

I may put two of these units on my Multiplex Twinstar using the existing motors that are still glued in. The only question I have, is it worth doing, the Twinstar flies pretty good as is.

Please note that the Cermark gearboxes appear to be the same ones that Greg is selling. I don't understand the ratio differences. Cermark also has the 05 boxes of the same design. Bill Grigg's - <http://www.aiusa.com/bgriggs> - is also carrying these boxes. Can someone get me the "correct" ratios on all of the boxes? km

New Size Modelair-Tech Belt-drive

Tom Hunt introduced the new H-250 drive at the WRAM's show. It lists for \$44.95 list...(with prop adapter.... same one as MEC/MAS/ H-100...3/16" shaft) It is available with ratios of 3.14:1 and 3.66:1. Information should be up on the Modelair-Tech web site at <http://www.modelairtech.com> by the time you read this. Tom will have them at Toledo, where I'll get mine!

Shorts Skyvan

From: James Frolik email: jdfrolik@hotmail.com

Dear Fellow Modelers,

Just thought I'd share with everyone the ob session

that has maintained my sanity while cooped up all winter in a small apartment in the middle of a big, hectic German city where you can't do much of anything but sleep, work, and drink coffee in cafés -- and spend money at internet cafés.



This is my winter project. Final assembly will be done in Oregon/USA this summer. The Shorts Skyvan was built from a plan by Jonas Kessler and provided free in the September '98 issue of FMT (Flug - und Modelltechnik). This is my first non-kit model built strictly from plans. Will it fly? It should.

The wing span is 1350mm (53") and all-up weight is roughly 1250g (44 oz.) with eight RC2000s. (Mine isn't fully finished and outfitted, so I don't know the exact weight yet.) Wing loading is 72g/dm² (23.6 oz./sq.ft.). I plan to install Speed 400/6v motors with Graupner 6,5x4 scale props running off 7 cells; might try 400/7.2v motors and 8 cells later. Controls are 4-channel: aileron, rudder/steering, elevator, and motor. Covering is normal Oracover and Orastick (nice stuff!) The Busy Bee decals were scanned from the plans and enhanced in Adobe Photoshop, then they were printed on clear contact paper (actually plastic) made for ink jet printers. The printer was an Epson Stylus 740, the computer an Apple. (Photos shown here are from a Casio digital camera.)

The wing, tail, wheel fins, and struts are more or less taped together for these pictures. They must come apart for postal shipping, but permanent assembly should go quickly this summer. The front roof, wing deck, and struts are the only parts that still need to be trimmed and/or sanded, and then fitted and/or covered. (The struts are primarily for optics. It can fly with or without them.)

Busy Bee airlines is a Norwegian regional carrier and my model is a virtual exact copy of the one presented in FMT.



The following is courtesy of "Peak Charge" the newsletter of the Silent Electric Flyers of San Diego, Editor: Steve Belknap at LetIFly@aol.com

Mid-Winter Electric Speed Runs

By Bruce Cronkhite

San Diego: Thomas Pils, the current F5B World Champion flew an electric model

through an instrumented speed trap today at 204+ mph 2-way average speed. Details will wait for the check of paper work and timer calibration. Trap entry was level flight and the flight was level within the trap. There was virtually no wind. The model was his earlier (slow, he says) F5B airplane that he took to the world champs in the Czech Republic. It is powered by an Aveox F5B motor direct drive, on 27 cells. We will not apply for recognition because of the FAI requirement for automatic electric timing on any speed above 180 mph. Now that we know it can be done, however, it makes more sense to invest in timing system development. And Oh, by the way, the rest of the Mid Winter Electrics went beautifully. The weather was gorgeous which the sunburn on my face will attest to. This one was fun. The following results tallied by Steve Neu

S400 class planes:

- 1) Doug Cronkhite Skat 97mph
- 2) Troy Peterson Skat 92mph
- 3) George Joy Switchblade 89mph
- 4) Mike Lee Switchblade 78mph
- 5) G. Gonzales Triffik 75mph
- 6) Bill Knoll T-33 EDF 69mph

The speeds listed above are the average of upwind and downwind runs over a 300 foot course. FYI the fastest one way speed was 113mph of Doug's Skat.

FAI Class planes:

- 1) Thomas Pils F5B Tornado 204mph 1815/1.5 Aveox (27*1000scr)
- 2) Steve Neu F5B Verminator 172mph 1406HC geared Aveox(27*1000scr)
- 3) Jerry Bridgman F5B Verminator 170mph 1406HC geared Aveox(27*1000scr)
- 4) Troy Peterson F5D Avocet 155mph 1406/1.0 Aveox (7*RC2000)
- 5) Wayne Walker F5B ?? 105mph F10LMR Ave ox (10*1250scr)

Speeds were measured over a 200 meter course.

Entry was from level flight (100 meters). Planes climbed to 500 feet or so and made a dive with the motor running then leveled out to enter the course. Fastest one way speed recorded was 224mph by Thomas.

Interesting New Receiver

Chris True mentioned this one on the eflight list:

Supreme "Super Slim"

Info from Hitec/RCD Web site



Supreme "Super Slim" 8 Channel FM Mini Receiver
8 Channel Dual Conversion Narrow Band 72 Mhz FM Receiver

The Supreme "Super Slim" is perfect for those thin tight fuselages when all 8 channels are needed for mixing. Designed to operate with all popular FM radios.

All Hitec RCD dual conversion receivers work only with Hitec RCD dual-conversion X-tals. Available in 72 Mhz only

Weight: 0.90 oz

Size: 2.0"x1.1"x0.7

*Y harness needed to use 7th Channel

This receiver will work with Airtronics, Futaba, Hitec or JR 72 Mhz PPM/FM.

Part# 29272 Futaba "J"

Part# 29472 "Old" Airtronics

Part# 29572 Hitec

Part# 29672 JR/Airtronics "Z"

Hitec RCD Receivers USE ONLY Genuine Hitec RCD Crystals.

International Covering Materials

If you read international flying information, you might like to know the following about iron-on coverings. It was posted to the eflight list by Jim Ryan: Oracover is the same as Goldberg Ultracoat. Profilm is the same as Hobby Lobby SuperKote (and several other low-temp films).

FibaFilm is (I think) the same as Coverite MicaFilm, which is now very hard to come by.

There are very few real film manufacturers, and most of the brands you see the world over are private label versions of the same few products.

Upcoming Events:

North Carolina Meets - 1999 - May 1 and 2, 1999. The WSRC will host the May 1 contest because their field has better access to motels. The RAMS will host the May 2nd contest. Both contest sites are close to highways 40 and 77. Primitive camping is permitted (and encouraged) at both fields. The RAMS field is close to an excellent southern restaurant. For more information contact: Dr. Colin McKinley (336) 924-5890 or Dr. John Mountjoy (336) 772-7609

May 8 OR May 9 (not both) - Dave Strathman Memorial Electric Fly - Springfield, OH - 2nd Annual electric meet - contact Azarr at Azarr@WPAFB.AF.MIL or phone: 255-5039 ext 340 The date will be May 8th, with rain date May 9th. The field will be open for flying on the 9th if anyone desires to stay over.

May 15 New Jersey Eagles Fly-in, Hope, NJ - Fun fly for all types of electric powered models. Contact Joe Beshar, 198

Merritt Dr. Oradell, NJ 07649 (201) 261-1281

May 30 Spring E-Fly, Sunday 30 May, the field will be open on the 29th. Mostly grass, with one tarmac runway if the wind is right. Minimum comps. Maximum Fun! Site is at 600 Gude Drive East, Rockville MD. Map and flier available in early 99 from Dereck Woodward at weekendpilot@juno.com.

Site is in suburban area, close to I270/I495 (Washington Beltway).

June 12 & 13 River Valley Electric Meet II, Wisconsin Rapids, WI. Primitive camping available on site. \$5.00 per day or \$8.00 for both days. More details, Rich Ida 1-800-358-7019 or email: inspector@tznet.com

June 12 & 13 3rd ANNUAL LAND OF LINCOLN ELECTRIC FLY-IN Location is the same as the previous years at the Knights of the Air Club Field in Springfield. Maps and additional information will be available around March 1st. Tim McDonough tim@mcdonough.net

June 26 & 27 The 5th Annual Kingston Electric Fun-Fly - contact Martin Irvine mirvine@limestone.kosone.com - Well groomed grass site with a large club house and primitive overnight camping is available. Take Hwy 401 to Exit 599. Go north on Wilton Road about 4 miles to Fred Brown Road and turn left. About 2 miles in you will see the



The Ampeer
Ken Myers
1911 Bradshaw Ct.
Walled Lake, MI 48390

The Next Meeting:

Date: Saturday, April 17 or April 24 (rain date)

Time: 10 A.M. Rushton Road Flying Field, South Lyon

Call Ken 248-669-8124 for confirmation