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Ampeer subscriptions are \$10 a year U.S. & Canada and \$17 a year world wide.

The Next Meeting:
Date: Thursday, May 1, 1997 Time: 7:30
Dublin Community Center, just N. of the village of Union Lake on Union Lake Rd. across from St. Patrick's Church

Ampeer

Hobby Shack

Hobby Shack has been a great source for modelling supplies for many, many years. Their Website is being constantly updated and you should stop by and see what's there. There is very useful information about modelling, the products that they carry - LOTS - and connections to other clubs, magazine and manufacturers. Start at their home page: <http://www.hobbyshack.com/>
You can order their catalog and special fliers online or write to them at:

Hobby Shack
18480 Bandilier Circle
Fountain Valley, CA 92708
Phone: (800) 854-8471

WHY?

by David Summers

Sooner or later we have to answer the questions. Why do we fly? Why do we spend all that time building fragile aircraft that will probably be pulverized sooner rather than later? Why do some of us go out there in the most atrocious weather conditions to

tempt fate? Why do we always have to have that one last flight that ends up in disaster? Why do we always push the envelope? Why, why and why?

Since the earliest days we have looked skyward because flight is inherently beautiful and intriguing. From our science, we know how a wing produces lift, but there is still a sense of magic about flight. Let's face it, when you watch a Boeing 747 coming in to land, all your instincts tell you that those tons of airplane just shouldn't be floating there in thin air.

The flight of some birds is more attractive or interesting to us than others. The soaring, effortless grace of an albatross is pure poetry in motion and is emulated by our long winged, floating gliders. Closer to home, who among us cannot admire the skill of the hawk as it milks the thermals for altitude and gracefully patrols the sky? What else in nature can compare to the majestic sight of a large flock of Canada Geese in full vee formation honking out their joy? The unbelievable low-level aerobatics of martins hunting insects on the wing are beyond any RC fingers to control while the wizardry of

What's in this issue?

Hobby Shack site - Why? - ElectirCub Wing Washout - AF new gearbox ratios - New Goodies - More on the AF Superboxes - Mini-Bell - Even More on AF Gearboxes - Take It With You - The March Meeting - Product News - ACE Simple Texan conversion - Mid-America E-Flies Info - Upcoming Events

the hummingbird is unmatched in the model world, except perhaps by the helicopter enthusiasts. By in large, we tend to find bigger birds more interesting and our models follow that pattern. Are the models our way of coming as close as we can to fulfill one of our oldest dreams - to fly?

There is something intrinsically beautiful about watching a model aircraft in flight. It is the movement, the graceful motion as the aircraft transitions from one attitude to another in a three-dimensional dance that attracts and holds the eye. Like a figure skater, we spend hundreds of hours practising those movements so that they flow smoothly from one to the other. Away from the field, we often stop what we are doing and with our hands and minds trace out those aerial steps - to the puzzlement of spouses and friends who cannot see the model flying in our imagination. In John Gillespie Magee Jr.'s words, "We have slipped the surly bonds of earth."

The flying field can either be an unbearably hot and sun-seared or a windy, wet and bone-chilling place to be - so why spend any time there? One might begin to suspect that there is something almost prehistoric about flying clubs. Pilots go there not just to fly, but to bond - a throwback to the club-wielding hunting group huddled in a cave swapping stories about the last mammoth hunt? Members will often drop by the flight line when they have no intention of flying. They just need to get their fix of a pint of prop wash.

Contrary to the Hollywood image, pilots are not strong, silent types. They talk. Flying is a lot of jaw boning - the exchange of very arcane knowledge. To the outsider, the topics would seem incredibly dull. We talk about the much the same things over and over, except each time it is somehow quite different and interesting. There is no such thing as a boring conversation in the pits. But why? Is it because it is a re-enactment of the hunting group yarn telling? Do we hang on every word because we might learn something that will save our model? Or is it more basic? The flying field is a great leveller, an almost perfect democracy. Do we talk because it is a non-threatening environment?

There is an element of risk in our flying. We launch a perfectly functioning model and time after time take the chance of ruining it. We don't have to prove anything to anybody once it has flown properly. Have you noticed that once you have mastered a manoeuvre, you just cannot leave well enough alone? We are forever flying when the wind is just too mean and tricky. We are our own worst enemies. We simply cannot just stick to the basics, we have to keep pushing the edge. Taking off from dry land is not enough, we also like the challenge of lifting off from water and snow. We seem to crave the excitement that a little bit of danger brings.

Challenge seems to be a key element. Other people don't challenge us, we challenge ourselves. Nobody on the flight line would dream of daring a fellow flyer to prove that he can fly - it just isn't necessary. Sooner or later, the urge will overcome a pilot, and he will taxi up to the line and take off. It is remarkably similar to an infant bird in the act of fledging. What incredible drive causes a chick to leave the safety of the nest and to throw itself headlong to almost certain destruction? Why fly when you might die?

It takes a certain type of character to become a pilot. Setting aside the physical requirements for good vision and hand/eye co-ordination, there is a need for a mind set that is different. Have you ever noticed how many people quit in the training phase? Something goes wrong and they lose the faith. Those who have earned their wings know that things are going to go very badly one day and they have learned to accept the consequences and to keep going. When a seasoned pilot crashes and smashes, there is no doubt in anybody's mind that he will come back again. We just do.

Most of us live pretty dull existences. But, out at the field we can escape the drudgery for a while and play. It is childlike, carefree, unabashed fun. There are no medals, no prizes, just an inner glow. We fly - we tempt fate - we conquer the elements and defy gravity. Why? Just so that we can do it all over again. It brings some zest into our lives.

We become keen observers of weather. In our everyday jobs, we are forever glancing at the sky trying to judge the wind speed and figuring out what it would be like if we were out there flying. We start to observe weather patterns that we would never have noticed before. Equally, we challenge the weather. We fly when it is too windy, too cold and too wet. Why do we fly when we are so uncomfortable? We certainly stop most other activities - like mowing the lawn? Is this also the neanderthal in us trying to reconnect with nature?

Is flying a sport or a hobby? For most of us, those who build and fly, it is both. Those who meld a box of balsa, assorted bits of wire, plastic and metal into a model airplane are engaging in the time-honoured hobby of model building. The fact that the model is an aircraft, as opposed to a sailing ship in a bottle, is irrelevant at this point. BUT, once the enthusiast actually commits the model to the sky, then it is a sport. It is not quite an athletic activity, but it has elements of lifting, bending, carrying, co-ordinating and of course praying (and other "...ings") that tend to make it very similar to sports such as fishing. Speaking of fishing, note the similarity - the endless talk, the getting away from it all, the long hours, the varying weather conditions - some nuts even try to ice fish, just like frozen-finger flyers who simply don't know when the season is over.

Why do we get so scared when we fly? Flying is very much safer than driving to the field. You stand a very good chance of being badly hurt just transporting your model to and from the field, but the chance of personal injury if your model crashes is almost non-existent. Do we somehow transfer our soul to the aircraft such that we tremble when we have a close call? Can you remember that horrible feeling when you flew one into the dirt big time? There is the nauseating crunch of splintering balsa, the slow-motion crumpling of the thing of beauty into a twisted mess, the initial shock, then a numbness and afterwards a period of grieving. We get very attached to our planes.

After all is said and done, it could be allowed that all that is going on is that we are out there reliving our childhood playing with expensive toys. The actual flying takes total concentration and shuts out the daily problems and annoyances - total relief from the cares of everyday life. Fifteen minutes in the air can leave you totally exhausted and yet as satisfied as though you had just won Olympic Gold. However, it is not just the flying, there is much more to it and that something extra is why we keep coming back for more. But, just try to explain it to someone who has never flown a radio-controlled aircraft in an RC Club setting.

Let's face it, we fly, but we don't exactly know why.

Footnote:

John Gillespie Magee, Jr., was born in Shanghai in 1922, the son of American missionary parents. In 1940, he won a scholarship to Yale but turned it down to join the RCAF. Magee was killed as a pilot officer in Britain in December 1941, while flying a Spitfire on practice manoeuvres. He was 19.

High Flight

John Gillespie Magee, Jr.

O, I have slipped the surly bonds of earth
And danced the skies on laughter-silvered wings.
Sunward I've climbed and joined the tumbling mirth
Of sun-split clouds - and done a hundred things
You have not dreamed of - wheeled and soared and swung
High in the sunlit silence. Hovering there,
I've chased the shouting wind along and flung
My eager craft through footless halls of air.

Up, the long delirious, burning blue
I've topped the wind-swept heights with easy grace
Where never lark, or even eagle, flew,
And, while with silent, lifting mind I've trod
The high untrespassed sanctity of space,
Put out my hand and touched the face of God.

Source: Reader's Digest. The Canadians at War 1939/45, .
Vol 2. 1966

About the Author:

David Summers is a 54 year old Canadian who is a member of flying the Toronto RC Flying Club. He built free-flight models as a teenager, but gave it up. He started RC Flying in 1994 at the age of 51. His interests range from hi-start gliders, to electrics to glow-powered. He flies all year round off land, water and snow. He can be reached at ironsidz@netcom.ca

The follo**WING** note also arrived from David

Subj: Great Planes - ElectriCub

Date: 97-03-07 11:34:53 EST

From: ironsidz@netcom.ca

To: KMyersEFO@aol.com

Ken:

I just got back (10:30 am) from flying my modified Great Planes ElectriCub.

We Torontonians got a fresh dump of about three inches of light powder snow last night. I find these conditions are ideal for flying float planes off snow. Hence, I took out my Cub. It is a beautiful experience to take a float plane off the snow on a bright sunny day.

I built the ElectiCub right after my Carl Goldberg Mirage 550 - which I still fly off a schoolyard baseball diamond. Starting from home plate, it does an ROG before getting to first base on a 7.2 volt 550 can motor with a 1400 SCR battery.

Nearing completion, I decided that the Cub was just another Mirage. So, I keep all the micro-servos, upgraded to a 0.25 glow engine and added aerilons. It flew, but was always very difficult when rounding out for the landing. If I let the speed drop too much, I got a dramatic right wing tip stall. Last summer I put the Cub on floats and had no trouble taking off, but the added weight really accentuated the tip stall - it fell out of the sky at quarter throttle. The solution was to crank in about 3 degrees of washout (LE down and TE up) on both wing tips.

This morning I was landing (snowing) the floats into a 15 mph wind and touching down at about 10 mph ground speed - steady as a rock even in the wind.

Consequently, if anybody is building an ElectriCub, I recommend they consider a bit of wing tip washout to cure the low speed tip stall possibility.

Astro Flight's New Gearbox Ratios

from Bob Boucher via Keith Shaw

Hi Ken,

Bob Boucher called last night to update me on the various projects cooking at AstroFlight. While we were at it, I found out the exact ratios for the production boxes, thought you might like to know for dreaming about your projects and the Ampeer.

020 37/11 = 3.36 (1/8" shaft and close bolt spacing, helical)

035 48/11 = 4.36 (1/8" shaft and 1" bolt spacing, helical)

05-15 48/13 = 3.69 (5/32" shaft, helical)

25-40 59/19 = 3.11 (1/4" shaft, helical)

*60-90 60/20 = 3.0 (1/4" shaft, SS straight, grub screw pinion)

60/22 = 2.72 (alternate for testing, requires mod to box)

* still in testing, not sure what final configuration will be.

All the other ratios are initial production values. It would only take the purchase of some 1/8" 13 tooth pinions to change the 035 box to a lower ratio. But a FAI open frame 035 on 10 cells with a 4.36 box would probably blow the Turbo Ten out of the water!

By the way, Bob Kopski came up with a good way of keeping the brass helical pinions in place on the motor shaft. Before you press on the pinion, use an automatic (spring loaded) center punch to put a couple of divots on opposite sides of the shaft about where the middle of the pinion will be. These will both prevent the pinion rotating and sliding forward. The center punch mushrooms out some metal in a ring around where the depression occurs.

New Goodies Headed Your Way

Sender: Sp400racer@aol.com

Azarr

Speed 400 Specialties

1750 Lundgren Rd

New Carlisle OH 45344

PH: (937) 849-0418

FAX: (937) 849-0518

I'm planning a more or less monthly snail mail newsletter similar to what I did before I sold Air Flair as I still have my customer list. For right now, e-mail to sp400racer@aol.com or snail mail will get someone on the mailing list.

I'll have an ad on E-Zone in Apr, right now I'm working on 6 ARC Mini-streaks for Tim McDonough to have for Toledo. I'm planning on offering the Mini-streak ARC for \$75 and will have the usual assortment of motors/kits along with a few new items. I am also working with Tom Hunt on providing ARC versions of his speed 400 stick models. I'm

working on a Speed 400 pylon racer for the NATS and hope to have the finished weight around 13.5 oz. The prototype should fly within a week or two, weather permitting. The plane is a highly modified version of Robert Vess' (Miss Martha & Smith Super Special) EZ Mark 2, with the mods strictly for e-flight considerations, so I know the basic planform is plausible. The slimer version flew at 10.5-11 oz with the Russian VA engines and a 1 oz tank so I think I can make the weight. I expect the airframe to be in the 2.5-3oz range before covering.

Getting It Right

Lex Davidson - New Zealand

Sender: l davidson@hrc.govt.nz

Dear Ken,

I tend to check my Email more regularly as the end of the month comes close hoping for your message that the next issue of AMPEER is up. (COOL! km)

I particularly enjoyed the response from Bob Benjamin and Bob Boucher on the "Tale of Two Models". If guys in clubs like the Silent Fliers of San Diego can get it that wrong one would wonder what hope there is for modellers in "Wet" clubs getting a first conversion right. Bob Boucher emphasises prop speed in his response. I have only just come to realise how important this is. It is critical and more important than watts per pound. (???? km) Real example-- Nice gentle Black Magic vintage model of about 3 lb usually flown on an 11x6 with 7cells. With a bit of a breeze takes off in about 3 feet. Same model with a 12x4 (*The following is from Bob Boucher's Electric Motor Handbook, available from Astro Flight and other sources. "Thirdly, please note that at almost all useable speeds, one never wants to use a propeller with a pitch to diameter ratio less than 0.5. VERY LOW PITCH PROPS like 9x3, 12x4, 18x6 and 24x8 are best used for stirring paint."* km) can't take off and will only stagger around the sky. The watts per pound are nearly the same but the prop speed with the 12x4 is not high enough for safe comfortable flying.

The ElectricCalc programme, that you have listed on your page, really does help in taking the guess work out of whether or not there will be enough power and enough prop speed/ thrust generated. I got my copy of Electricalcalc soon after it was released. I seem to spend many nights trying different combination for guys. Cheaper and faster than doing it in the air. **As the authors say the real test is in the air.**

There is another little software gem in your on your Computer Software page--"Plane Geometry". For an impartial review go to the R/C Soaring web site. I read the review and had to get it (at US\$19.95 it wasn't a big risk).

(continued on page 6)

Astro Flight News March 1997

New Astro Super Boxes are here!

Astro's New Super high ratio Gear Boxes are now available for your next giant scale project.. The largest size super box Model 714 fits the Cobalt 60 and 90 motors. The 714 uses a 60 tooth stainless steel spur gear and an 18 tooth stainless steel pinion gear. The Model 713 fits the Astro Cobalt 25 and 40 motors. It uses a 59 tooth aluminum helical gear and a 19 tooth helical brass pinion gear. Now the modeler can swing really large scale size props. When fitted with the new super box the standard cobalt 40 swings an 18x10 prop! Now you can fly that Quarter Scale Cub on a Cobalt 40.

Super Box Prices

Super Box Model 714 ...Retail \$79.95...Special Ampeer price \$69.95

Super Box Model 713 ...Retail \$69.95...Special Ampeer price \$59.95

Optional 20 tooth pinion for 714...\$10.00

Technical Calls

We receive so many technical calls everyday that it is impossible for us to answer all of them. We will answer your technical calls between the hours of 2:30 PM and 4:00 PM PST Monday through Friday. You can FAX or E-mail: info@astroflight your questions to us anytime.

Astro Flight Inc.,
13311 Beach Ave.,
Marina Del Rey, CA 90292

Phone: (310) 821-6242
Fax: (310) 822-6637

Astro Cobalt 90 Motor with Model 714 Super Box Straight Steel Gears 60T spur 22T pinion (2.7:1 ratio)

Propeller	Static Rpm	Volts	Amps	Watts	Thrust	Speed
26x14	2500 Rpm	32 volts	17 Amps	550 Watts	80 oz	38 mph
26x14	3000 Rpm	40 Volts	21 Amps	850 Watts	100 oz	42 mph
26x14	3500 Rpm	48 Volts	25 Amps	1200 Watts	120 oz	46 mph
28x14	2,500 RPM	33 Volts	22 Amps	725 Watts	133 oz.	38 mph
28x14	3,000 RPM	41 Volts	27 Amps	1100 Watts	166 oz.	42 mph
28x14	3,500 RPM	49 Volts	33 Amps	1600 Watts	200 oz.	46 mph

Astro Cobalt 60 Motor with Model 714 Super Box Straight Steel Gears 60T spur 20T pinion (3:1 ratio)

Propeller	Static Rpm	Volts	Amps	Watts	Thrust	Speed
22x14	3,000 Rpm	26 Volts	21 Amps	550 Watts	70 oz	39 mph
22x14	3,500 Rpm	31 Volts	27 Amps	850 Watts	90 oz	46 mph
22x14	4,000 Rpm	37 Volts	37 Amps	1250 Watts	110 oz	53 mph
24x10	3,000 Rpm	27 Volts	19 Amps	500 Watts	90 oz.	28 mph
24x10	3,500 Rpm	33 Volts	25 Amps	825 Watts	120 oz.	33 mph
24x10	4,000 Rpm	40 Volts	33 Amps	1320 Watts	150 oz.	38 mph

Astro Cobalt 40 Motor with Model 713 Super Box Helical Gears 59T spur, 19T pinion (3.1:1 ratio)

Propeller	Static Rpm	Volts	Amps	Watts	Thrust	Speed
15x8	5,000 Rpm	20 Volts	19 Amps	375 Watts	85 oz	38 mph
15x8	5,500 Rpm	23 Volts	22 Amps	500 Watts	100 oz	42 mph
15x8	6,000 Rpm	25 Volts	25 Amps	625 Watts	115 oz	46 mph
16x8	5,000 Rpm	21 Volts	22 Amps	450 Watts	100 oz	38 mph
16x8	5,500 Rpm	24 Volts	25 Amps	600 Watts	115 oz	42 mph
16x8	6,000 Rpm	26 Volts	29 Amps	750 Watts	130 oz	46 mph
18x10	3,500 Rpm	16 Volts	21 Amps	350 Watts	76 oz	33 mph
18x10	4,000 Rpm	19 Volts	26 Amps	500 Watts	95 oz	38 mph
18x10	4,500 Rpm	22 Volts	32 Amps	700 Watts	116 oz	43 mph

The Mini-Bell

Peter Delevoryas
Peter.Delevoryas@Corp.Sun.COM

Ken,

I was wondering if you noticed that Hobby Lobby is selling the framed up Skimmer
(cont. on next page)

Astro Cobalt 25 Motor with Model 713 Super Box Helical Gears 59T spur, 19T pinion (3.1:1 ratio)

Propeller	Static Rpm	Volts	Amps	Watts	Thrust	Speed
15x8	5,500 rpm	17 Volts	25 Amps	425 Watts	76 oz	42 mph
15x8	6,000 rpm	19 Volts	28 Amps	550 Watts	87 oz	46 mph
15x8	6,500 rpm	22 Volts	32 Amps	700 Watts	97 oz	50 mph
16x8	5,000 rpm	16 Volts	25 Amps	400 Watts	73 oz	38 mph
16x8	5,500 rpm	18 Volts	28 Amps	500 Watts	87 oz	42 mph
16x8	6,000 rpm	21 Volts	33 Amps	690 Watts	100 oz	46 mph
18x10	3,500 rpm	13 Volts	25 Amps	325 Watts	58 oz	33 mph
18x10	4,000 rpm	15 Volts	30 Amps	450 Watts	72 oz	38 mph
18x10	4,500 rpm	18 Volts	36Amps	650 Watts	91oz	43 mph

FOR SALE from: Frank Eskie
(313-382-6540)
15864 Promenade
Allen Park, MI 48101

Heron, designed by Bill Winter, ,
inc. motor & prop, 2 servos, ready
to fly - \$50
Aeronca 68" span, inc. motor &
prop, 2 servos, motor mounts are
needed - \$30
Metric 2M Sailplane by Top Flite-
framework done, needs covering &
electric motor - \$20
Master Airscrew 3:1 Gear drive &
12 x 8 prop - \$20
Futaba 4ch. & receiver; 4NBL -
AM - 72 mhz - \$50

(Davidson Cont.)

It is a number of Excel spreadsheets that assist in designing models. The calculations it presents are mind boggling and your "dream" is also represented in a rotatable 3 view drawing!! All done in Excel!!! If you are an Excel user this is worth buying just to see what Excel Graphs can be made to do. Comes on 1 disk with about 30 pages of documentation, mainly explaining the results. I didn't want to be up all night putting in other guys dreams so have offered to on sell it down here.

One last thing - a safety issue. Our member with the AVEOX and RAPTOR went out to the field for a fly on his own. Mistake number one. We don't have snakes or other nasties down here but if he had hurt himself he could have been in trouble. He could have bleed to death.

As he was ready to launch he noticed a blade was missing form the prop!!!

He switched off his TX, mistake number two, and walked back to his car. On the way back he picked up some interference that put the AVEOX (with a full 12 cell pack) to full throttle!! It didn't stay in the model long and only stopped when a wire twisted out of the controller. Fortunately he didn't try to catch the motor.

Why didn't he switch the RX off? ---Because he needed a screwdriver to get at the switches. This still doesn't answer why he switched the TX off. I guess that was the shock of finding a blade missing. **The moral is TX on RX on then RX off TX off** and never put switches where you need tools to get at them.

(Mini-Bell Cont.)

for \$66! That sounds pretty good! I ordered one to see how the workmanship is. I am thinking of putting an Astro 05 FAI in it. What do you think? It also seems like you could

make the wing flat (no dihedral), add ailerons and have a cheap hotline plane. *(I recommended that he build a foam wing to take the stresses. km)*

Have you ever heard of the Mini Bell? *(Yep, we used to sell it in a "plastic bag", when I worked part time in a hobby shop. km)* It is a 24" R/C plane for .020 power. I built one for CO2, lengthening the span to 30". It was disappointing with a GMOT 300.

THEN, I got a speed 280 and the tiny Jeti 05 controller, and modified the fuse to hold 6 N500 AR batteries. Radio is Hitec micro rx, 2 HS60's. Econokote on fuse & tail, litespan on wing. Don't know all-up weight, probably around 11 oz., 130 sq." I also removed the landing gear and put a Sonic Tronics 6x4 folder on.

Average flights are almost out of sight at about 15 min. with no thermals. Because there is no brake, the prop drags during glide. Even though I just like to fly it up in circles, it will do mild aerobatics. Snap rolls on a dime.

Based on my experience with gas (noisy & messy) CO2 (too limited), electric is fantastic. I had been out of electric for a while, since coming back speed controllers have come farther along.

My next experiment is going to be with the Speed 300. I'm going to use some Ace foam wings and a pylon for the motor above the wing.

From the Horse's Mouth

from Bob Boucher - Mr. Astro Flight!
Sat, 8 Mar 1997 14:01:21

The 25/40 ratios are measured. The 60 ratios and 90 are calculated. I have since tested 22x10 and 24x10 props on the 60.

I am waiting for a 26x14 to test the 90. The 24x10 only loads to 10 amps.

I also have 20 tooth pinion for the 60 and a 22 tooth pinion for the 90.

I will try to finilize the tests on Tuesday March 11 and will post data then on my web site and send you a file.

The 020 tested is the new brushless.

THESE NUMBERS WILL NOT CHANGE. The 25/40 AND 60/90 BOXES ARE READY NOW. The 035/05/15 WILL BE READY IN ONE OR TWO WEEKS. I WILL BRING SOME TO TOLDEO.

020 BOX IS ABOUT ONE MONTH AWAY.

All my best, Bob

(They should be available by the time you read this, at the end of April. km)

Take It With YOU - RVers!

from Paul Ashford

101604.565@compuserve.com

Thought it about time I e-mailed you to say thanks for letting me know when the *Ampeer* is ready.

I just flown a new model, 60 inch glider with 'V' tail and control on rudder, elevator and motor. Power is by Graupner Speed 400 with 2.33 :1 gearbox on 7 of 500 AR cells, Robbe 210 flight switch. The prop for first flights was an Aeronaut 9.5 x 5 folder, all up weight 26 ounces. Climb out was a little slow but the model flew ok. Control with the V tail proved adequate. I'll try a larger prop when I can get to the model shop to stock up with spare blades.

The design criteria was for a model that could be stripped down to 'flat' components so that I can take it on **holiday in the RV**. The whole thing with a second set of aileron wings for the slope fits into a box measuring 36" x 12" x 5", not counting radio naturally! So looking foward to some evening flights when on vacation!

The March Meeting

The March meeting was held on a cold blustery evening. Ken updated the roster information for chartering with the AMA. If you've not paid your '97 dues, now would be a great time!

Ken shared the infomation on the new AF gearboxes with the members present. Jack Lemon brought in a couple of Speed 400 motors. One had the 2.33:1 Graupner gearbox on it. He had an 8x6 three-blade mounted on it, and said that it turns this prop at over 6,600 RPM on 10 v at 10 amps. He'll be using two of these motor/gearbox combinations on his DC-3. He also noted that he's finished a "wooden" fuselage for one of his favorite planes - the Etude. It seems that we all have lots of project underway, and hopefully more to share in April.

Ernie LaBelle showed off a "pure" glider that he built while being "housebound" all of January. We're not sure what it is, but it dates from the early 70's. I thought that it might be a Wind Drifter, but I'm not much of a sailplane guy.

April should have been an interesting e-month for us, as our meeting was just before the Toledo R/C Expo!

Ernie LaBelle shows off his latest project, a sailplane of unknown origin. It was given to him. As usual, his workmanship was outstanding. He used "leftover" covering to come up with the silver/red/transparent blue and orange color scheme.



More Electric Flight Product News

(via Charge Ahead!)

Bernard Cawley

New Creations News

Kirk Massey, head man at New Creations, also told me in a recent conversation that Tony Fiori, of Astro 90 powered Mustang fame, is making his own 50-cell-capable speed control, and that it is available from New Creations. If you're working on a really high-power setup, give Kirk a call to find out more. New Creations R/C, P. O. Box 496, Willis, Texas 77378, or call him on (409) 856-4630. You can e-mail Kirk at 76221.2446@compuserve.com. He doesn't often reply to notes, but he does respond to requests for catalogs and such, or orders, via e-mail.

AF News

Astro Flight is keeping busy as well. Work is proceeding on the small brushless motor I mentioned but, like a lot of product development projects, it isn't going as quickly as first projected. Keith Shaw did have a prototype flying at KRC in the fall of '96, and Doug Ingraham has received his prototype, but there are no production units yet. *(This should be changed by the time you read this! km)* Doug hasn't been able to fly the prototype - flying weather in South Dakota is a little scarce at the moment. Bob Boucher told me via e-mail that there are to be 50 in the first batch. Price: \$200 for motor and controller.

In the meantime, Astro has introduced a new optocoupled version of the 204 speed control - the 204DX. This is a 7-36 cell, 50A continuous speed control that basically replaces the old 205. List price is \$149.95. The waterproof 207D has also been upgraded with an optocoupler.

Astro has upgraded the 110D and 112D chargers again - they now have a fuse in the output line to protect the charger from reversed connections to the battery being charged. I'm told this will work for 7 cells, but isn't fast enough for bigger packs. So - if you change the output connector from the Zero-Loss or make a patch cord, especially to Sermos or Anderson powerpoles, BE

(cont. on last page)



The electric Texan is in the foreground. In the back is a control line version using a Norvel .061. When the conversion was completed it was off to the field for the first flight. With the assistance of Rob Dyer, owner of the field, the plane was launched into a light breeze. There were no dips, just a straight flight out. Pulling a pylon turn was NO PROBLEM. With the 500AR's it was close on making the 10 laps. Hat's off to Fred Reese, the simple series master.

Modifying the Ace Simple Series Texan to Electric

by Dave Jones

203 N. Main St.

Lamoute, MO 65337

Start by installing the aileron servo in the wing, as is traditional to the Simple Series planes.

Notch F3 to allow the battery to be moved forward and back to adjust the Center of Gravity (CG). Using double sided Velcro™, available from Viper Model Products¹. Make two straps to anchor the battery.

Move the elevator servo forward to the left side of the aircraft, with the aft mount just ahead of F3. Using scrap ply from the kit, make two servo mount blocks and mount to servo. Notch the 3/32 doubler approximately 1/2" long, enough to clear the servo and mounts.

Make a motor mount by wrapping 1/64" ply around the motor you are using and carefully glue. (We used the AP29BB and Graupner 4.7 x 4.7 prop.) Use enough material to allow clearance behind the motor for the power wires. Using the plan, make a backplate from 1/8" plywood, the same dimensions as the back of the ACE engine mount.

Use of a BEC speed controller (ESC) is highly recommended, as it negates the need for a receiver battery and its extra weight.

This plane has been flown electrically in many different configurations. The following are a couple of suggestions for your conversion.

Kyosho - AP29BB, Viper Model Products
Micro-Demon 102 BEC controller, 7 -
1200AE cells, Graupner 5x5 CAM prop, 25
oz. weight

Graupner Speed 480 Race, Viper Micro-
Demon 102, 7 - 500AR cells, Graupner
4.7x4.7 CAM prop, 20 oz. weight

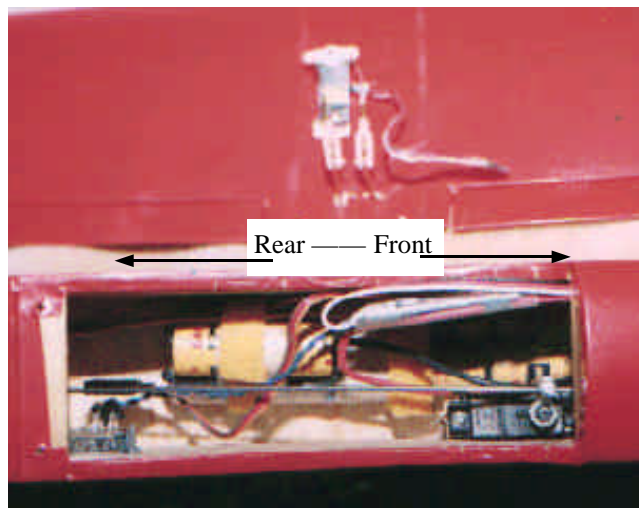
Graupner Speed 400 6v, Lofty Pursuits 10A
BEC controller, 7 - 500AR cells, Graupner
4.7x4.7 CAM prop, 19 oz. weight

As flown:

Kyosho AP29BB, Viper Model Products
Micro Demon 1-2 BEC controller, 7 - 500AR
cells, Graupner 4.7x4.7 CAM prop, 21 oz.
weight

The Texan is an excellent conversion for electrics. Build one and let's race at the Mid-America Flies.

1.) **Viper Model Products** - Vic Newton, ---
speed controllers, batteries, constant current
chargers, noise suppression kits. Visit Vic's
WEBSITE at <http://www.vipermodels.com/>. Phone: 1-800-592-VIPER or 1-800-592-8473 or FAX an order send it to 1-415-366-3538, 24 hrs daily --- Master Card and VISA accepted.

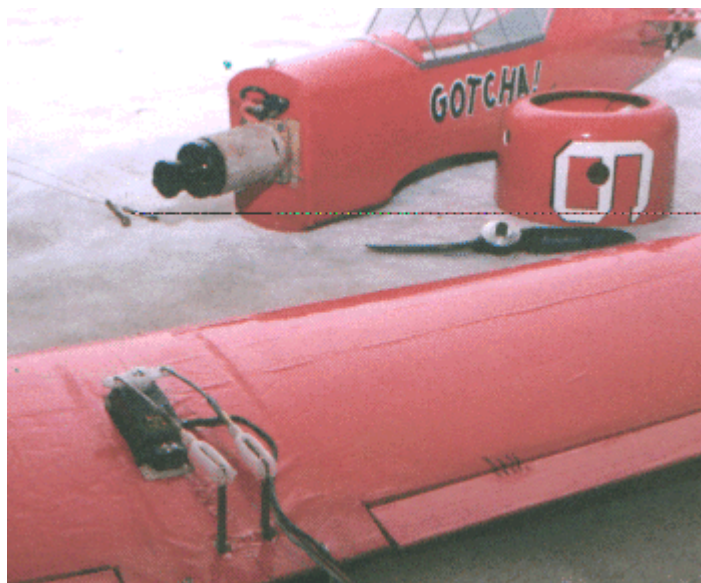


F3 had to be sanded away below the cockpit floor to allow battery movement to adjust CG. The CG is very critical in small aircraft, make sure that it is exact! Fuselage Doubler was notched to allow the servo to be flush with the fuselage side. Weight for this version was 20 oz.

Whisper Parts

from Eric Olson - olson1@cadvision.com

Thanks for your efforts on locating Whisper parts. I have since learned that Airtronics has some direct relationship with Kalt and sells their parts. Larry is the contact person, and the
(cont. on next page)



The motor mount "tube" can be clearly seen in this photo. The motor mount is 1/64" ply wrap and 1/8" ply backplate. Note that this is a direct conversion and can be switched back at a moments notice to a fire breathing 1/2A glow. The mount goes directly into the same holes as the Cox mount, and the wires go through the fuel line holes. The aileron servo is in the wing to allow for movement of the motor batteries for correct CG location.



A newer version of the Shrike may be available from ACE, using two of the new Graupner Speed 480 motors. Let them know if you are interested. The more contact they receive, the more likely they are to release it. The new version will be known as the "Hoover Hornet".

Parts cont.

address is; Airtronics, 15311 Barranca Parkway, Irvine, CA 92618

I just thought that by informing you, we might help out somebody else. Regards, Eric Olson

Mid-America Flies 1997 AMA Sanctioned (New Location - See April Ampeer) Saturday, July 12 & Sunday, July 13, 1997

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

your Contest Directors are:
Ken Myers phone (810) 669-8124 or
102575.3410@compuserve.com
Keith Shaw (313) 973-6309

Flying both days is at the **NEW LOCATION**, the
Midwest R/C Society Flying Field - 5 Mile Rd.,
Northville Twp., MI * * * * * (see map next page)
Registration: 8:30 A.M. both days
Flying from 9 A.M. to 5 P.M.

Gold Stickered Transmitters are REQUIRED!

All 50 frequencies will be used

Saturday's Events

All Up - Last Down

Longest Timed Flight

Best Scale (must fly)

Most Beautiful

Best Multi-motor

Best Sport Plane

CD's Choice

Sunday's Events

All Up - Last Down

Longest Timed Flight

Best Scale (must fly)

Most Beautiful

Best Mini-Electric

Best Biplane

CD's Choice

Refreshments will be available at the field both days.

There will be a pot-luck picnic at the field on Saturday evening.

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

Even though this is called a contest, the purpose is fun and the enjoyment of sharing the electric experience.

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

**Saturday's & Sunday's Awards:
Plaques for 1st in each category
Merchandise drawing for ALL entrants**

CAREFUL, regardless of the vintage of your 110D or 112D.

A new product, which was shown at the IMS show in mid-January is the new Astro Watt Meter. This, according to Doug, uses the display from the 110/112D chargers to simultaneously show voltage, current, instantaneous power (Watts) and amp hours. Lots of information in a small package. Sounds like a must-have tool for testing fanatics like me.

Astro Flight now has a worldwide web site as well, called, not surprisingly, www.astroflight.com. It has product data, company history, special offers on some goodies, even some of Astro Bob's thoughts on the federal tax system and some of the recent proposals to change it. Those of you with web browsing capability should take a look. You can also e-mail Astro Bob at info@astroflight.com. Astro Flight, 11331 Beach Avenue, Marina del Rey, CA 90292.

Upcoming Events:

May 24 (rain date only May 25) EMFSO at Oakville Model Flying Club, Electric Fun Fly, Drumquin Park, North Field, Britannia at Trafalgar, John McNicol (905) 821-9629 or Walt Gray email: gwr7mm@sympatico.ca

May 24 (rain date only May 25) Madison Co. R/C Club e-fly in, Anderson, IN Ralph Weaver <http://www.iquest.net/~weaverr>

May 24 (alternate May 25) Electric, Glider & Sailplane Fly-In, Skyhawk Field*, Goudl Rd. 1 mile west of M-53 (Van Dyke),

between 34-35 Mile Roads. Bob Kirkman 810-628-2431

June 7 & 8 Tenth Annual Lehigh Valley Radio Control Society E-Fly, Mike Stewart, 107 Taft Terrace, Washington, NJ 07882 as CD. For more info E-mail Mike at Mike721@worldnet.att.net or Phone: (908) 689-6981

June 7 & 8 EMFSO, EMFSO Electric Fun Fly, SOGGI Flying Field, Lynden, Ont. Bud Wallace (905) 274-3177 or Stan Shaw (519) 766-9966

June 13 - 15 First Annual Electric Fun Fly, the event will be held at the 3M RC Flyers site in St.Paul, MN: - 35 acres of well maintained grassy area - 3 paved runways at 45 degree increments to minimize crosswinds. Flyers will be required to show their AMA card to fly. Contact: Mike Roerig Tel: 612-778-6340 or email Mike atmlroerig@mmm.com

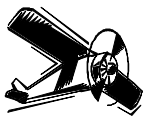
June 28/29 NCRCC 10th Annual Electric Fly NCRCC's Ortolani Field, Ellington, CT, CD Ron Torrito, (860) 528-2227 or e-mail 102127.1060@compuserve.com

June 28/29 - Knights of the Air R/C Club, Springfield, Illinois, Tim McDonough, 127 S. Oaklane Road, Springfield, Illinois 62707 (Email: tpm@inw.net)

June 28/29 - Kingston Radio Control Modellers, Electric Fun-Fly, Martin Irvine (613) 389-9457

July 12/13 - Mid-America Electric Flies, Ann Arbor Falcons/EFO, location, Midwest R/C Society Field, 5 Mi. Rd, Northville Twp, MI Ken Myers/Keith Shaw

Aug. 2 - 5 - AMA Headquarters, Muncie, IN Doug Ward, R.D. #1, Box 189. Irwin, PA 15642 (412) 446-5891 DWard79207@aol.com



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

Next Meeting: Thursday, May 1, 1997

Time: 7:30

**Dublin Community Center, just N. of the village of
Union Lake on Union Lake Rd. across from St.
Patrick's Church**