# the

# January 2002

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The Next Meeting:

Date: Thursday, January 3 Time: 7:30 P.M. Place: Ken's house - Walled Lake, MI

#### What's In This Issue:

Puddlemeister – Wooden Zagi – P-63 – RF Interference – Ferrite Motors & Gearboxes – Uni-Dome dates – Two Old Timers – RCB Kits Update – The Twins – SuperStar EP ARF – Mid-America Photos -RTL Fasteners - Herr P-51 -Flying Indoors - It's Back - Folkerts SK-2 - Cirrus Receiver - Kadet Solution

## **Puddlemaster Plane Rating**

From: Paul Combs pmcerc@netzero.com

Attached is a picture of my "Puddlemeister" - it's a slightly modified Ace Puddlemaster. Deviations from the standard kit: 2.5:1 geared Trinity Sapphire car motor turning an APC 9x6E, modified vertical fin / rudder.

It flies OK with 7 2400 mAh cells, but flies best with 7 1250 mAh SCR's (much lighter). The picture is with the original wing - it is now flying with the wing from my Goldberg Mirage. The high thrust line takes a little getting used to, and it's just a bit twitchy, so I don't make any last second changes on the landing approach or I'd be

going for a swim. Don't forget to save a little juice to taxi back to shore with (it handles great on the water).

This plane is loads of fun to fly off of local ponds - lake flights are nice too but only when the wind and water are very calm. The next step is a wing with ailerons to increase the fun. The kit was so-so, but because it's such a kick to fly I give this plane 4 st ars. Paul Combs in Boise Idaho

# Wooden Zagi

From: Tim Knowles DTKNOWLES@aol.com

Just finished reading the latest Ampeer, Great newletter/web page etc. good work



thanks. I always read it and I appreciate the E-mail notice.

FYI on the Wooden Zagi, my flying buddy Joe Colletti has built a plane that he calls a ZagStik. He used Tom Hunt's stick building technique and the Zagi planform



http://www.ezonemag.com/articles/2001/jun/gallery/gallery.htm

Pictures of Joe and the Zagstik are in the above link.

The inspiration is derived from the fact that we both have Zagi 400's and we both built Elipstik's, Joe's from Tom's kit and mine from the plans.

Joe did reduce the wing area a little but the ready to fly Zagstik with speed 400 motor and 8 each 600AE cells is 14 ounces (the gallery article says it weighs 17 ounces but we weighed it yesterday and got 14 ounces). It is much more dynamic than the Zagi 400, faster and the rolls are very axial.

Keep up the good work.



P-63
From: Weldon Smith lasfws@mc.net

This is a photo of my P-63, my favorite plane in 40 years of flying. It has following features: 72" span, direct drive Astro 60 with extension shaft because of long nose, 25 cells driving 16-8 prop, 29 amps static, retracts, 10 pounds, 28 oz. wing loading. It was finished last year, but has not SUCCESSFULLY flown yet. I'm still trying to find a satisfactory field. Expected to fly it in the fall.

#### **RF Interference Problems**

A problem that occasionally pops up with electrics is radio frequency interference. Many Ampeer readers have been kind enough to share information on this topic with Bob Mungg, who was having problems with his B-17 project. I'm happy to report that Bob's problem seems to have been solved. Here is some more information that just might be helpful to other. KM

Subj: **B-17 saga (interferences)** From: Paulo Faustino rdd53650@mail.telepac.pt

Hello Ken.

I've enjoyed very much your newsletter and appreciated your work to develop electric flight. About the subject, I read carefully the story from Bob Mugge and let me give my own experience:

When I was using the F115 and F116 Futaba receiver's on my electric planes and sailplanes I had the same problems that Bob is having. When I changed to the F138DP and F148DP receiver's (much more expensive), I had all problems with interference solved, but a new problem arose: these receivers are much too expensive and I have other planes to fly and didn't want to change the receivers from plane to plane. Solution, (it works for me and others of my club), is the use of the Pico 4/5 from Multiplex with a crystal from the same brand and the Hitec normal 5 channel receiver (they now have an dual conversion version of it) for all my planes.

# Let me describe them:

Graupner Cumulus 2000, Spee d 480 3,45/1; 7 cells, Receiver Pico Mpx

FVK Silent Dream 2,5m; Speed 600 2,8/1, 7 or 8 cells, Receiver Hitec

Kyosho Zero and P-51 (foam) 1m, Speed 500, 2,9/1; 8 cells, Receiver Hitec

Kyosho Cessna 177 1,2m; Speed 500 3/1, 7 or 8 cells, Receiver Hitec

Kyosho Flash 1,2m; Speed 500 2,9/1; 8 cells, Receiver Pico Mpx

Kyosho Valencia 1,78m; Speed 500, 3/1, 8 cells, Receiver Hitec

Kyosho Express M29, 1,65m; AP 29, 2,33/1; 7 cells, Receiver Pico Mpx

Kyosho T-33 1,17m; AP 29L, Fan, 7 cells, Receiver Hitec

I test my planes and sailplanes by this way: I collapse the transmitter antenna of my Futaba FF8, and walk away by 25 passes or, let's say, 25 metres. A friend holds the plane at waist height and all functions are tested. If all works right then, I can fly for su re, as I think that the range is good.

I hope this very long e-mail can help. Paulo Faustino PORTUGAL

# B-17 Motors

From: Keith D. Shaw

The King Crimson used the hot-wind gold label Leisure 05s with the long nose 3:1 gearboxes. Three .01 DISK capacitors, make sure to use the cheap disk caps, they have much better high frequency response than Mylar, PS, or tantalum. I also had a 10 amp 50 volt Shottky diode across each motor (anode "hat" to positive) to help control current spikes. Try to have a one turn per inch twist to all the power wiring, this will help keep the radiation noise under control. Keep all the R/C wiring as far away from the power wiring. If you are using separate aileron or flap servos, the wiring should be in a separate channel more in the rear of the wing. You might want to try a ground range test with the flap and aileron servos unplugged at the receiver end. I had a twin years ago that drove me crazy with noise fits. It turned out to be the noise was being induced into the aileron leads, and pipelined to the receiver. I relocated the servo wiring and used a servo buf fer amp, that solved the problem.

The King Crimson flew with the Leisure motors for 12 years of hard airshow use, but finally the motors had just faded too far, rebuilds just didn't do it anymore. I converted it to Astro FAI 035s, so now have about twice the available power. I used the same three .01 disks and 10 amp Shottky diodes. The range is still fine even though the full power current is 30+ amps. Leisure motors hold up fine in the 20-25 amp max range, but don't go over that as they will degrade very quickly. Good luck,

Keith

#### **Ferrite Motors and Gearboxes**

From: Paulo Faustino rdd53650@mail.telepac.pt

Hello Ken,

I just completed the tests on my own imitation of the Team Gear 40. It's a homemade gearbox using two 13 Turn Yokomo motors and spur gears from an R/C Car. The two motors were bought from a shop that can't sell them at the initial high price, as they are out of fashion, although they are only 3 years old.

I put them in series with 16 cells, the spur gear is an 80 tooth 48DP and the pinions 17 tooth. This gives a relation of 4.7:1. Turning a Graupner Grey 12x7 propeller, I get 8000 RPM at 22 amperes. Talk about power: this is the kind of power an O.S. 53 four-stroke would provide: around 8000 to 9000 RPM on an 12x6 propeller.

I intend to use pinions of 15 teeth to get a relationship of 5.33:1 and use a 12x10 Graupner aerobat series propeller. That will get about the same amp consumption and could be put in a Kyosho Spacewalker along the same way as the gas version at only 3250 grams or less, if I use micro servos on him.

The great thing about all of that: it cost me less than

68 dollars to get it.

What you think about it. (*Sounds great! KM*) Happy landings.
Paulo Faustino
PORTUGAL

## **UNI-Dome Indoor Flying Dates**

From: Bobs R/C bobsrc@forbin.net

Hello all indoor flyers, R/C and FF,

For the last two years the Black Hawk R/C Pilots and Bob's R/C Hobby Supply have been able to obtain the use of the University of Northern Iowa's UNI-Dome indoor football stadium to fly in. This is on the University campus in Cedar Falls, Iowa which is in N.E. Iowa and about 3 miles north of Interstate 20. **There are 3 dates as follows;** 

Sunday, October 28, 2001. 7 a.m. to 3:30 p.m..
Astro turf football field with no obstructions
Sunday, December 9, 2001 8 a.m. to 6 p.m.
Basketball floor down but bleachers and curtains
removed and speakers up( The floor is being refinished,
so the bb goals should also be down)
Sunday, January 6, 2001 8 am to 6 p.m.
same as above

We have been flying free flight at one end of the stadium and R/C at the other and it has worked well for us. We are not sanctioning this as a contest and do not intend to run any events ourselves, but if any special interest groups wish to run events we will try to accommodate them. Please contact Bob Nelson to get on the schedule. We are also inviting any industry people to display at this event.

I realize that this is pretty short notice, but we have to wait for the University to set their schedule first and then take the open days to get an affordable rent. For more info, e-mail bobsrc@forbin.net, use our U.S. Postal Service address or call Bob at 319-277-0211 days or 319-233-4771 evenings. Please pass the word along ASAP as we have limited time to advertise.

See you all there for a day of fun!

**Bob Nelson** 

**BOB'S R/C HOBBY STORE** 

6322 University Ave.

Cedar Falls, IA 50613

(Sorry about the late notice, but if you live near this area of Iowa, you should be able to participate in the January event, and it will put you into contact with some indoor fliers. KM)



Two Old Timers

From: Armand Francoeur afran@mediaone.net

Ken,

I have attached a picture of a restored and electrified Q-Tee. It was originally built and flown with an .049 glow engine in 1976 by a friend. I thought it would be appropriate to compare it to the new Cutie that you just reviewed. It uses an Speed 400 with a Mini Olympus gear and a 9X5 prop. I use an 8 x 700 mAh. pack and get 6-8 minute spirited flights. The original builder says it flies at least as good as it did with the .049!



I have also attached a picture of a restored and electrified Jr. Falcon which was also built in 1976 by the same friend. It has the same power system as the Q-Tee and is a great flyer.

These were great little "park flyers" in their day and are still fun to fly today with e-power.

Regards,

Armand Francoeur

**Update and New Model from RBC Kits** 

From: Rob Bulk info@rbckits.com

Hello Friends,



Photo from RBC Kits Web Site

I have a new model posted on our site and it is a really nice one. It is the Pou du Ciel HM16 from Max Zuijdendorp, for park or small airfield or just where you want to fly.



Photo from RBC Kits Web Site

Also, the Skyhawk page is updated with the latest information and available Blue Angels decals.

Under the "News" page you will find the useful links and newest models.

Greetings and happy flying, Rob Bulk – RBCkits Tel 0031(0)172-231869 Fax 0031(0)172-231866 Email: info@rbckits.com

Web: www.rbckits.com

**Please Send Ampeer Subscriptions or Renewals to:** Ken Myers

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Walled Lake, MI 48390



The Twins

From: Walter Thyng docwt@worldpath.net

Hi Ken,

Here are the photos I promised you. I've never tried this before, so let me know how it works. (*Just fine! KM*)

This is my Graupner Comet. Powered by two 480BBs pushing the Graupner Impeller unit s. Battery was a nine cell 2000 mAh NiCd. Esc was a Jeti 50. Ailerons used two TS-11 servos. Elevator and rudder, S-100s. Control was via my new Airtronics RD 6000 Super. I did add a rudder and changed the elevator so the servo pulled for up, but oth erwise built (assembled) it per instructions. C/G was right on in spite of the rudder servo. One of the photos shows the inlet holes for cooling air. I left the fuse open under the rudder for exit.

My PVC pedal launcher tossed the Comet into the air with authority and after a slight sag, speed built up and the Comet was smoking. It was also a handful as I did not have enough elevator, even with dual rate at 150%. I also experienced a problem using the digital trims on the RD 6000. You can't just pull the lever down for full trim. You have to wait for what seems like an eternity, until the beeping stops. I finally got it und er control when it suddenly started down. I pulled the throttle back and leveled the wings. It hit almost flat, but the impellers caught something and took the wing off as well as destroying the fan units.

I really think this would have been a great jet, but I'm between positions right now and couldn't afford another \$140.00 for new impellers (Graupner's term). However, I do have an unused pair of Kyosho 580s. I will send you photos of the converted "P-Comet" if it flies.

My Sportwin is built from S&E M plans. Again, I added a rudder. Power is two 6v Speed 400s, the ESC is another Jeti, Servos are HiTech 85s, props are CAM 5. 5 x 5.5. Battery is eight zapped 800s. Rx is an MPI. Weight was 1/2 oz over plans. WOW! Does this thing GO! Even our club speed freak was bowled over. It flew straight off the board. Ailerons were very slow at



the recommended settings. I have since doubled the throw. I didn't check flight duration, because whatever it is, it's long enough! This thing is almost as fast as my hopped up F-16.

Landings are a delight. When the Sportwin stalls, it just bobs up and down. Lower the nose and you're flying again.

When this designer's P51 hits the Mags, I'm going to be as close to first in line as I can (Come to think of it, his new ME-262 design might make a nice home for those two 480BBs).

The last photo speaks for itself.

I would rate the Sportwin as high as I can without using up my one 5 star rating.
Walt



### **NEW ELECTRIC RELEASE!**

From: Heather Rose HROSE@hobbico.com Press Release – Presented for Information Only

Hobbico SuperStar EP ARF Trainer The popular SuperStar ARF goes electric! Electric Almost-Ready-to-Fly Trainer

SuperStar EP ARF/HCAA2051 Wingspan: 48.75 in (1240mm) Wing Area: 402 sq. in (25.9dm2) RTF Weight: 2.7 lb. (1.2kg)

Wing Loading: 15.8 oz/sq.ft. (48g/dm2)

Requires: 3-channel radio w/2 standard servos, charger SuperStars have long been the most 'modeler - friendly' trainers in the industry - known for their top-



notch materials, incredible ease of assembly, and slow, smooth, confidence-building flight characteristics. Hobbico now unveils a new Almost-Ready-to-Fly SuperStar with all of these same features, and equipped with a powerful electric motor instead of a gl ow engine. Let the SuperStar name draw your customers to the SuperStar EP ARF - where they'll be sold on the benefits of clean, quiet, easy and affordable electric power!

The SuperStar EP ARF uses only high -quality wood components, and comes pre-covered in a durable plastic film.

In addition to a high-performance ElectriFly T-601 motor and propeller, an electronic speed control is also included.

A video is also supplied that shows modelers the final assembly steps, at-the-field flight preparation, and instructions on how to operate the radio.

Here are some of the advantages of electric power:

No fuel mess

Lighter weight and slightly smaller size - easier to transport

Less noise - especially important at airfields with noise restrictions

No large amount of field equipment to buy, carry or store - more convenient and economical for the beginner

Easier and simpler pre-flight preparations - just charge the battery and hand-launch or runway-launch!

A flat-bottom airfoil supplies excellent lift at slow speeds, and also helps keep the model level. As a result, the SuperStar EP ARF is very stable and easy to fly - making it an ideal trainer choice for beginners! Right out of the box, the SuperStar EP ARF is already mostly assembled. In just 3-5 hours modelers can have it ready for their first flight. The roomy radio compartment allows for easy installation of all on -board electronics.

FREE Instructional Video Inside! HCAA2051 SuperStar EP ARF Trainer \$129.99 Retail

# Jim Young's Mid-America 2001 Photos

From: Jim Young tnjyoung@ismi.net

Ken,

I finally got around to uploading the pictures I to ok at the 2001 Mid-America. They are posted on Snapfish, and the link in the message below should get you there. Please feel free to share this with fellow *Ampeer* readers. If they would like the full resolution picture, please have them contact me.

## Here's how to view my pictures:

1) Visit the link below to go to the Snapfish site.
"Mid-America 2001"
http://www.snapfish.com/share/p=20311001958533155/
l=5607477/t\_=8886

2) Type in your name and email address and then choose a password. This ensures the privacy of my pictures and also sets up your own password-protected area on the Snapfish site.

To keep you from getting spammed by S napfish, go in under the heading: already have an account? Use my email address: KMyersEFO@aol.com and password: midam to see Jim's photos.

#### **RTL Fasteners**

From: Rich Bastone 172rich@home.com

Hello.

My name is Rich Bastone, and I belong to a 130 member club here in Chesapeake, VA., (Tidewater Radio Control Club). I have really enjoyed building and flying model airplanes, but, like most hobbyi sts, I never enjoyed paying a dollar for 4 screws. Well, I finally did something about it. I started my own company! It's called RTL FASTENERS, a small mail order business that specializes in offering model building fasteners at fair prices and logical quantities. All of my products can be ordered from my secure on-line store. (a catalog is also available)

My Web site is www.rtlfasteners.com My phone is 1-800-239-6010 Email: rich@rtlfasteners.com

Sincerely, Rich





Scott Rellinger's Herr P-51

Scott and I started this project early in 2001. It is not a difficult project at all, but both of us had a 2001 with lots of other obligations. Many folks have converted various Herr kits with Speed 400 motors, but this 302 sq.in. model of a fighter, screamed for fighter like performance. I worked out the math and came up



with an Astro Flight 15 direct drive with 9 1.5 ounce cells like the 1250SCR, CP-1700 or the 2000 NiMH cells. This should give fighter-like performance in a trim package. Craig Moeller provided the graphics for this Rockwell version.

Saturday, November 10, was not a day to test fly, but since we had already agreed to meet at the field, and the pack was charged, Scott, being pilo t in command, decided to fly. Winds were 20+ MPH (NO, NOT just saying that - honestly 20+ MPH with gusts over 25 MPH) but right down the runway.

The other fliers had already packed up. The majority of things had been checked out before hand, so with a small preflight check, the P-51 took to the air. Scott applied the power slowly, the tail lifted and off she went. It was rock solid through the whole flight. Scott was so excited that he had to do it again!

Scott is an excellent glow flier and heli pilot, and now he can rightfully call himself an accomplished electric pilot.

The plane flew with no trim changes. (Yeah, Yeah - I know, no plane does - but it really did.) It was absolutely amazing the way it handled the wind. Here are the important specs: Herr P-51 42-inch span, 303 sq.in., 40 ounces, wing loading 19 oz./sq.ft, motor: AF15 direct, cells: 9 Sanyo 1250, ESC AF215D, J R radio - I'm not sure on the servos, but they aren't "minis", but are small, 8x6 Rev-up Prop.

While the flight time is nice, the next pack will be 2000 mAh NiMH cells. I have to admit that I thought him a bit foolhardy taking off in such a wind, but what a beautiful flying machine, with no bad faults and great aerobatic potential. He did rolls, loops (inside and out) stall turns and more. It turned out to be a wonderful day for a test flight.

# **Flying Indoors**

While some of us are lucky enough to have an indoor R/C flying site close by, some of us don't. If you have a Windows PC, you just might want to fly these indoor models on your computer.

Cockpitmaster RC Simulator is available direct from www.cockpitmaster.com and via download for \$49US.

The new simulator for small electrics "Backyard Edition" is\$29.95US via download.

Here is the list of planes for Backyard Edition: DJ Aerotek P 38, Corsair and Zero, Herr MiniSport, Graupner Terry, DAW PF 7, GWS Pico Cub, FVK Yak 400, HL Firecat, NSP Accord, NSP Virus 400, BirdW Tilde, Graupner Starjet, HL Champion, Braun Mouse, Todd Long Tiny, GWS Tigermoth, NSP Ellipstik, NSP Pleaser 3, Herr Starlight, Simprop Sukoi, HL Spitfire 400, DAN Kreigh Ifo & Trick RC Zagi





# It's Back

From *The Peregrine's Post*Internal Publication of the Ann Arbor Falcons
Volume 22 Number10 October 2001
Don Skiff, Editor
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1810 Cooley Ave., Ann Arbor, MI 48103

Keith Shaw's little twin isn't new—in fact, it's about 20 years old! But with new ESC, it flies like most of Keith's planes—great. When I asked Keith about it, he wrote:

"It is my ancient Aerocommander Shrike in Bob Hoover markings. It was built in 1978(?) originally powered with two Astro ferrite 02s, identical to today's speed 400 except they were wound for 4 cells, motors wired in parallel.

After a while I flew it with 5 cells for a little more

zip, but the motors needed rebuilding about every 15 flights. It then was modified to the "new" Astro 035 ferrites, a longer version of the 02 designed for 6 cells. These motors flew it even better and needed little maintenance.

It was severely damaged at an early KRC (~1984) when someone turned on during a low pass. The front of the fuselage back to the wing and both nacelles were totaled, and the motors were damaged. It sat in limbo for a couple of years until Astro Bob brought out the Cobalt 02, a shortened 05 designed to run on 4 cells. I completely stripped the plane down, built new nacelles to fit the c02s and a new front fuselage. The motors were run in series on 8 x 900SCR cells, and a "interesting" wiring scheme was used to give me off, two m otors running or only the right motor so I could do Hoover's one-engine-out routine.

It flew many air shows, I used it as my first flight warm-up plane. I stopped taking it to air shows a few years ago simply because I ran out of room.

A couple of weeks ago I decided to remove the mechanical switch system and just have a BEC Astro speed control. It is now several ounces lighter, and has better power due to the ESC and shorter wires rather than the lossy 4PDT and extensive wiring to do the off/one/two motors.

It did take me a while to get some interference problems licked due to motor noise piping into the receiver. Upon opening up the hatches on the nacelles, I found that I only had one cap across the brushes, and it was the "wrong" type! Replacing it with three .01 ceramic discs took care of all the interference problems.

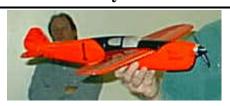
It was enjoyable to fly an old friend with new "life", even in the gusty conditions Wednesday.

As far as specs (from memory): Span: 42" Area: 260 sq.in. Weight: 41 oz. Power: two A stro Cobalt 02s, 8 x 900SCR, Astro 215D, MasterAirScrew 5.5/4.5 props @12K, 14 amps."



Keith Shaw's Folkerts SK-2 "Miss Detroit"

**Keith** built this plane from his own "scratchings". There are no plans available. The specifications are:



Weight: 11 oz.

Wing Area: 100 sq.in. Wingspan: 20" Fuselage Length: 25"

Adhesives: Superphatic, aliphatic and epoxy glues.

Covering: Econocote red and black

Transmitter: Airtronics

Receiver: FMA "Extreme" (which he really, really likes!)

Servos: 2 Hitec HS-55 servos driving tailerons. Motor: Astro Flight 010 equipped with an On/Off

switch.

Battery: 8 cell, Sanyo 350AAC Connectors: Deans 3-pin Approximate Airspeed: 60 mph

He found that while the tailerons worked acceptably well, he's considering retrofitting ailerons this winter and possibly adding a rudder for just more fun.

# Wingdingers Model Aircraft Club 24th Annual Swap Shop

January 20th 2002 - 9 AM 'till 2 PM
LaGrange County Fairgrounds - 4H Building
CR 075 North - LaGrange, Indiana
(Across from Lakeland High School)
Admission \$4.00 - Children under 12 Free -

FREE Parking
Table Fee (8' table) - \$12.00

(One FREE admission with three table purchase)

# For Information or reservations

George Slouber 616-432-3574

Advance prepaid table reservations required (Reserved table held 'till 10 AM)

Set up time - 7 AM to 9 AM

PLEASE NOTE – This Swap Shop has NOT been canceled!

#### Cirrus Receiver

From: Merle Davies mp davies@yahoo.com

I forward these messages for your reading and reply.

Perhaps any detailed description could be inserted into a issue of "La Ampeer" Newsletter for general information to the many.

Merle

(Merle's letter to Global follows. KM)
Dear Global Hobby Service,

I recently purchased a "Cirrus MRX - 4" Micro Receiver at a indoor fun fly, for use in my new "Wingo" under construction. The instructions mention "compatible POSITIVE shift system for Transmitters JR; Airtronics; Multiplex; and Sanwa. Shift to NEGATIVE for Futaba and Hitec."

Where do I find the SHIFTER, and how is it moved? Please explain modes of POSITIVE/NEGATIVE?

My assigned Radio is a "Cannon 3 Channel FM System", with Futaba/Hitec as alternative.

What type is the Cannon POSITIVE/NEGATIVE? Why must I use a Hitec Channel # 15 Crystal in this Receiver?

Will your receiver be compatible with ALL Electronic Speed Controls with BEC? Thank you for your assistance.

Merle Davies

(Global's Reply)

Dear Mr. Davies:

Received 24 October 2001

We sell the receiver in each mode, POSITIVE or NEGATIVE. You buy the one necessary for the shift of your radio. There is no physical "SHIFTER". You state your Transmitter Radio is a Futaba or Hitec, so it is a NEGATIVE shift, as above. I do not know what the "shift" really means, other than it is the method by which the radio transmits a signal.

You must use a Hitec AM/FM single conversion crystal because the "Cirrus MX - 4 Receiver" uses Hitec components. You match the frequency number (such as your Channel # 15) of your transmitter.

Hope that helps. Customer Service

## (Merle's added PS)

P.S. Nothing was mentioned about Cannon R/C Systems being POSITIVE or NEGATIVE shift. I will contact John Cannon for that information.

Hereafter the builder must know his "shifts" before mixing different manufacture of R/C Transmitter and

Receiver components.

(Ken's Comments)

This has always been true. For the most part, most receiver manufacturers do not mention shift, they just say Futaba/Hitec or JR/Airtronics. Those have been the most prevalent systems in the US. While not "commonly" known, many people in the US know that Airtronics products are Sanwa, and so were the old Cox systems. Multiplex is a fairly recent addition to the US market, so for many this is useful information.

Yes, your speed controls will work with any type of receiver.

#### **Kadet Solution**

From: Mark Stringer ratby@bizonline.co.uk

Ken,

I noted the problem with the Sig Kadet model and getting it to fly on electric.

My new Team Gear Single unit may have helped here.

A high power Sport single running on 8 cells and

turning a 11x6 standard Master Airscrew might have been the answer. The unit is not small, but that is usually OK on a trainer. It does give more of a punch and can handle more power through its gears than the average plastic or belt drive gear box and should give a good 8 minute flight. It should have enough "grunt" to get the thing off the grass without throwing it.

Details of the two new Team Gear Single units are on my web site at www.bizonline.co.uk/ratbyaeroplanes.

These have been developed to cover almost all sizes of model, except the really little stuff of course!

Best Regards, Mark Stringer Ratby Aeroplanes

### **Up Coming Events**

**January 6** Indoor Flying at the Uni-Dome, Cedar Falls, IA - 8 a.m. to 6 p.m. Basketball floor down but bleachers and curtains. Contact: Bobs R/C bobsrc@forbin.net or 319-277-0211 days or 319-233-4771 evenings

**January 27** OREO Winter Electric Fly, Ottawa, CAN. - First annual winter fun fly. The details are at this site: www3.sympatico.ca/rwoolley/oreo.htm



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