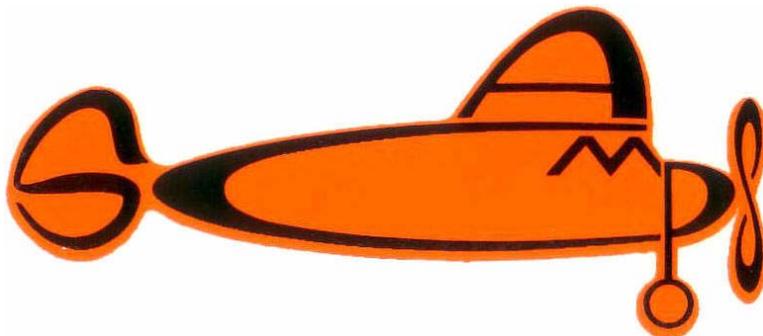
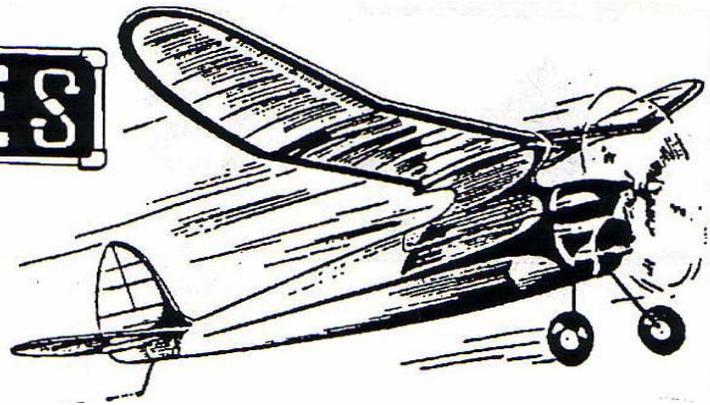


December 2007



Southern California Antique Model Plane Society -- S.A.M. Chapter 13 -- AMA Charter #158  
*Website address: <http://SCAMPS.homestead.com/>*

***RETURN ADDRESS:***

*Kevin Sherman  
1521 South Normandy Terrace  
Corona, CA 92882-4036*



# GAS



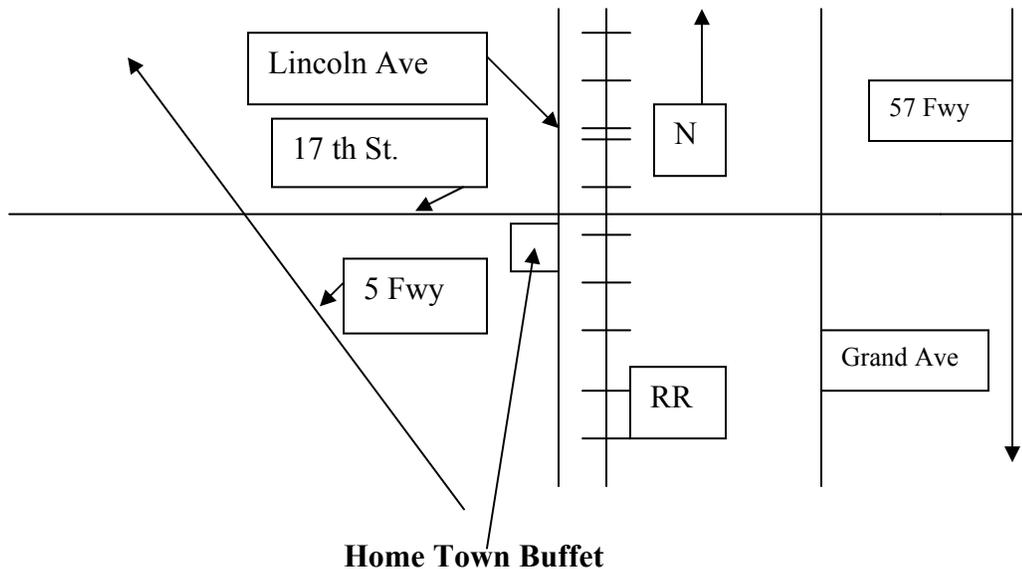
# LINES

## AMA 158 – Southern California Antique Model Plane Society – Sam 13

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The SCAMPS' December Christmas meeting will be held **Thursday (First Thursday) December 6 at 6:00 PM** at the Home Town Buffet. Make note of the fact that it is to be at 6:00 PM this year, an hour earlier than previous years. We want to thank Bill Creany, who once again, made arrangement for our Christmas party. Directions to Home Town Buffet, 1008 E. 17<sup>th</sup> St. Santa Ana, (714) 541-3020: Exit 5 Freeway at 17<sup>th</sup> St exit and head East. Home Town Buffed is on the South side of 17<sup>th</sup> just before you get to Lincoln Ave. If you are unfamiliar with the area, it is always advisable to look at a detailed map.



Happy Thanksgiving and we will see everyone at the Christmas Party.

**Renew Your SCAMPS' Membership TODAY!!!**

**REMEMBER TO PAY YOUR 2008 SCAMPS' DUES SO YOU WILL NOT MISS A SINGLE ISSUES OF GAS LINES. Please send payment to George Walter, 2412 Deerpark Drive, Fullerton, CA 92835. \$25 for regular mail, \$10 for E-mail newsletter.**

## SCAMPS News by Kevin Sherman

Priority Notifications – **It is time to pay your dues for 2008. Please send your membership dues to George Walter, 2412 Deerpark Drive, Fullerton, CA 92835. Price for regular mailed newsletter is \$25, and for E-mail newsletter, \$10.** Next months' SCAMPS' Fun Fly Contest will be held December 12, 2007. The events are Gollywock Mass Launch for rubber and ½ A Modern Gas for power. Our monthly meeting is our Christmas Party, held at the same location as the past several years, the Home Town Buffet. We want to thank Bill Creany for making the reservations. Bill says it is important to be there by 6:00 so they do not start giving our space away as they did in a past year.

## **SCAMP/SCIF Fall Annual, Lost Hills, CA November 3-4, 2007 Daniel Heinrich, CD**



Daniel Heinrich, event CD with his new Satellite 1300, with Rossi Power. Flew awesome, and the glide is incredible.

I had expected a small crowd for this contest with most guys saying they were too tired after the SAM Champs, crashed all their models there or just plain grumpy about the price of gas. I was happy to have 22 contestants who represented 44 event entries. Though it is true that many events only had a couple of contestants, ½ A Texaco had 9 entries and we had 5 twin pushers for the mass launch. I will try to get ¼ A Texaco (aka: Pee Wee Antique) added for next year since I know there were at least 4 people at the contest that have them. Brad LeVine had a brand new Super Buccaneer to avenge his loss at the FFC to yours truly but alas, there was no event. Sorry Brad, bring it to the Texaco meet, we will have a showdown there.

I have to say, the weekend had some of the best flying weather I have ever seen at Lost Hills. I took a couple of days off work so I could load up Thursday and do some flying Friday before the contest started and Friday, Saturday and Sunday were all carbon copies of each other, temperatures in the high 70's, very little drift and great flying all day. I was having fun with a 20"

Ramrod that I put the motor, battery and switch unit from one of the Harbor Freight models in. I had so much fun I lost the model! That will teach me to fly without a DT but I will say I never had so much fun losing a model. Luck was on my side when Kevin and I were returning from chasing a test flight of his dad's Texaco model and found it sitting right next to the road. Some days you get lucky.

Bud Romak was in rare form all weekend and only dropped two flights all weekend. One was an over-run on a fly off flight and the other was in the Gollywock Mass Launch when it appeared his motor bunched and he stalled all the way in. Twin Pusher was well attended and well flown by Kevin Sherman and Gus Sundberg. Mine suffered from pilot error when I decided at the last minute to add some incidence. It stalled all the way up and all the way down. I was treated to a first this year, an exact tie in ½ A Texaco. Both Rob Cobb and Mark Eddingfield posted a high time of 13:23 to tie for second. Rather than flip a coin (I suppose I could have gone to the next highest flight for the tie breaker) I decided that they would both be awarded second place. They fly with each other; I think they used the same stopwatch. That theory would hold if there wasn't a flight that was posted in between. Maybe they have two stopwatches? Lots of fun and that is what it is all about!



Norm Furutani flew several events including ½ A Texaco. Shown here with his Powerhouse, John Delevoryas photo

November is always beautiful weather and everyone who showed up was treated to fantastic flying weather and reasonable temperatures. The San Valeers had a great turnout for their contest as well and were only upset with me because I won the Johnson .29R they had as their raffle prize. Roy Hanson donated a new in the box Super Cyclone as a

prize for our contest. Since I knew we would have a low turnout I put it up as a raffle prize. We drew for all the remaining merchandise from the contest then all the tickets went back in for the engine. NO IT WAS NOT FIXED! Anyone who was there can attest to the fact that I only had 10 tickets (Ron Boots bought 50) but yes you guessed it, Kay Sherman drew my ticket! I guess that makes up for crashing my Wasp Saturday night. Thanks to all that showed up and will see you all at the Christmas Party.

**Twin Pusher (5 entries)**

- 1) Gus Sundberg 183
- 2) Kevin Sherman 161
- 3) Daniel Heinrich 82

**A/B Pylon (4 entries)**

- 1) Bud Romak 737
- 2) Ron Thomas 560
- 3) Jim Elliott 418

**.020 Replica (4 entries)**

- 1) Tom Carman 514
- 2) Ron Thomas 374
- 3) Jack Jella 304

**Texaco (4 entries)**

- 1) Rob Cobb 25:19
- 2) Gary Sherman 17:00
- 3) Brad LeVine 11:49

**Sam Gas Scale (3 entries)**

- 1) Zack Pettit 4:55
- 2) Brad LeVine 3:45
- 3) Gary Sherman :34

**C Pylon (3 entries)**

- 1) Bud Romak 900
- 2) Kevin Sherman 880
- 3) Bret Fawcett 226

**C Cabin (2 Entries ent.)**

- 1) Tom Carman 456
- 2) Bret Fawcett 226

**Small Rubber Stick (2 ent.)**

- 1) Kevin Sherman 780
- 2) Norm Furutani 446

**Large Rubber Cabin (2 ent.)**

- 1) Bud Romak 540
- 2) Jack Jella 408

**Gollywock Mass Launch (2 ent.)**

- 1) Kevin Sherman 246
- 2) Bud Romak 120

**A/B Cabin (2 entries)**

- 1) Gary Sherman 487
- 2) Ron Thomas 467

**30 Sec Antique (1 entry)**

- 1) Ron Thomas 520

**Small. Rubber Cabbin (1 ent.)**

- 1) Jim Sprenger 204

**½ A Texaco (9 entries)**

- 1) Ron Thomas 15:25
- 2) Rob Cobb 13:23
- 3) Mark Eddingfield 13:23

**More From SAM Champs 2007**

**Our SAM Champs 2007 Misadventure by John Riese –**

OFB (old Flying Buddy for those like me who are not up on computer lingo) Ed Rueben and I spent most of the year getting ready for the big trip. As it was we were still building model boxes on the Saturday before we left.

I was concerned that the small engine in my Ford Ranger wouldn't be able to pull a trailer so we were going to try to get everything packed in one vehicle. Let's see, that's 2 big model boxes, 2 motorcycles, 2 canopies, 2 flight stands, any number of model tools and spares boxes, food, ice chests, suitcases, first aid stuff, tracking



Tom Laird with his Bounty Hunter John Delevoryas photo



Gary Sherman with his Brown Junior powered Bomber. John Delevoryas photo



Tom Carman and his .020 Replica

devices, spare gas for the bikes, tools for the vehicles, repair parts and tools, books to read, maps, and some other stuff I forgot to mention. Oh, and twelve models. To save space I opted to use the alert in two classes so make it eleven gassies, no Diesels or rubber planes. This time all were previously flown except for the Zomby and Alert. We were kicked out of Taft the week before by the Rent-A-Cop and blown out of Perris on Friday; so there went our test days.

SWMBO (She who must Be Obeyed) took a look at the loaded truck and predicted we would be blown off the road somewhere in the desert. As it was we had no problems with crosswinds on the way. The little engine that could; got us over the hills to Nevada with no complaints. I had taken the precaution of having the radiator cleaned out, new hoses and a thermostat put in; the temp gauge didn't move. New tires also; we were going first class this time.

We met lots of old friends and introduced ourselves to Internet acquaintances at the sign in on Sunday. Then we decided to go out to the field and unload the model boxes and the bikes. Parking the motorcycles at the flying site near a fellow flyer's motor home was better than leaving them overnight in the hotel parking lot. When we got to the field there was no flight line so we sorta guessed at where the contest was to be. Apparently it had been too windy earlier in the week so the officials opted to wait till Monday to set up. At least that's the story I heard later; at the time we thought that maybe we picked the wrong week to come.

The room was OK at the official SAM designated hotel, except I could have done without the big mirror behind the sink in the bathroom. I felt like Ahab confronting the white whale when I stepped out of the shower and looked at the creature in the mirror. I got to loose some weight.

Contest day; time to set up and fly. Ed looked around and pronounced it "Free Flight Heaven." The EZ-Up was actually easy to put up; much easier than my previous canopy with the heavy tarp and a score of loose poles. We set up next to Bernie Crowe and his wife. Turns out that she and Ed Rueben both had spent some time in the same part of England so they had a lot to talk about. The flying went OK. As I recall, the first day was B Cabin and C pylon. Ed got his flights in with his Commando in Cabin; I forgot what he was flying in the pylon event. I managed a fifth place with the old reliable Simplex.

I tried to get the Zomby in the air but was unsuccessful. First I hit my head with the big stab on an attempted test glide. I have never done that before. The Texas Timer proved to be too sophisticated for me to figure out. First of all, it was designed to be mounted on the left side of the fuselage. I normally start the engine then watch the timer arm run down to the desired time of release, then launch. For a lefty that means the timer should be on the right side. All those wires sticking out from the faceplate were very confusing. One for the release, one for the DT, one for the ignition, phooey, too complicated. I'm going back to the converted KSB timers and fuses.

The tracking was difficult when the planes drifted towards the power lines. The Walston receiver wasn't able to filter out the excess electricity in the air. I don't think there is a solution to that problem as long as we are using the simple pulsed CW transmitters.

We decided to wait till Tuesday to trim out our other planes. While Ed was hanging out with his old friend Sal I took a walk over to the Klarich tent and picked up a catalog. We were looking forward to the rest of the week playing with our modeling friends from around the world. Unfortunately, I was called back to work and we had to leave for home early Tuesday morning. I heard that Ron Thomas was doing well in the gas events, and of course we watched Bernie make a few flights but it was disappointing to miss participating in the contest with the others.

**Commentary on 1/2 A Texaco by Allan Arnold** - The 1/2A Texaco event this year was a 3 flight Add-Them-Up where the timer



Allan Arnold with his 1/2 A Texaco Bomber

could follow the flight. John Donelson and Allan Arnold teamed up for the event John flew his Powerhouse, we used my van which has a sun roof so John could stand up in the van and follow the flight with his binoculars and tracker while I drove. This proved an excellent method to follow the flight; John would give instructions to go left or right sped up slow down as necessary and keep the model in sight. The weather forecast predicted calm winds in the morning so we were ready to go as soon as the contest opened. John filled the 15cc tank and launched the Powerhouse. The engine ran for almost 14 minutes and this proved to be too long. By the time the engine quit the model was at cloud base and disappeared into the clouds at 15 1/2 minutes we followed the model with the tracker for 3 miles down the dry lake until we hit the desert scrub and had to stop. The tracker had lost the signal after 36 minutes. The tracker was receiving strong interference from the high voltage transmission lines close by but eventually we picked up a weak signal so we set off on foot in the direction of the signal without water BIG mistake after about a mile or so I started to feel the effects of heat and exertion so I started back to the van John who had gone ahead came back and returned to the van with me, after a drink and snack which revived us we drove down a dirt road to where John had a strong signal he soon found the plane it had taken us 3 hours, the plane had flown about 5 - 1/2 miles. When we got back and looked at the score board Ron Thomas had over 20 minutes, but had not found his plane so John put 8cc in tank and off we went again, this time the plane landed on the dry lake with a time of 13 min 57 seconds. On the last flight the engine quit after 3 minutes but lady luck stepped in and the plane snagged a good thermal and it stayed aloft for 11 minutes and gave John the win. We had a good time working as a team but realized that 15 cc of fuel on a well tuned Cox is too much even for a large site like Eldorado Dry Lake we are proposing a rule change to 8cc of fuel which would allow the use of the regular Cox tank.

**Tom Boy and more** - A popular event was the Tom Boy. Fernando Ramos and Roger Willis plugged away all day trying to get the high time, on 3cc of fuel the Mills would take the Tom Boy up so high it was a speck in the sky but 8-9 minutes was the best they could do which was not enough to win. Fernando did the retrieving on my bike and almost ran out of gas acting as "fetchermite" for the Tom Boy flights. Fortunately Floyd Reck had some spare `petrol` so we could keep on going. Incidentally, I saw Floyd fly a plane for the first time since I have known him "Alleluia". Maybe he has seen the light again. Milton did not have much luck with his planes. He could not get the engine running on his Sailplane and he crashed his Clipper so he sat in his chair and slept. Fernando thought he had narcolepsy which he vehemently denied. He said he was resting his eyes, but we woke him up when we needed a timer. The Bean Feed had so many models to judge they ran out of voting slips. One `seldom seen` model of particular interest to me was a Kanga Cub designed by Col Bowden. I had seen the original at the Colonels' home in Bournemouth England 60 years ago and the model held the record duration flight in England in the early 1930's a bonafide antique.

### **SAM Champ Adventure by Tom Laird**

This is another Walston retrieval success story with my Ram Rod 750 in C Nostalgia. It was about 10:30 A.M. when I launched my second flight with a nice pattern in pretty good air and I'm off on my bike for a nice chase. About 4 min. into the flight I realized the DT was overdue and something had malfunctioned. After a couple of trips out on my bike and dealing with heavy static from the power lines on the receiver and a lost signal, I got in the 4-Runner and headed south on Hwy. 95 to clear the power line interference. It took several stops along the shoulder, and about 15 miles before I got a very faint "chirp" from the NW direction. This took about 10 minutes of sweeping the antenna and fine tuning the gain and balance. There was still some static but that chirp was sweet.



The Tom Boy group, photo courtesy of Bob Harper

I headed back north to a paved road that lead to an energy facility with acres of solar panels and a steam plant. There was a lot of security in place with high barbed wire fencing, cameras, and one way in through a double gate. My signal from

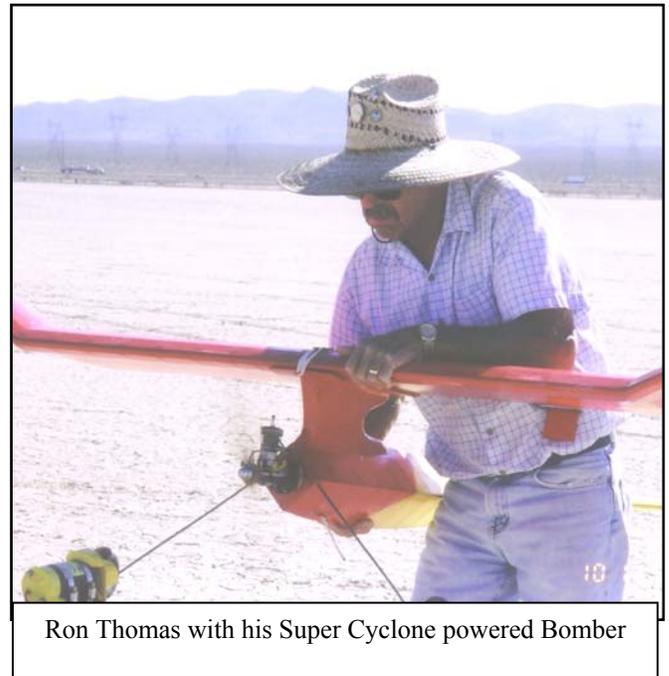
the Walston was pretty strong at the fence which made me believe the model was inside. With all the security I felt it best to go back to the field and get a flying buddy as back up. So with Jim Hurst in tow it was back to the solar plant to pin point the location.

At this point I'm sure security was very interested in what was showing on their monitors; this person walking the fence sweeping an antenna with a little black box. It was also very unusual not seeing anyone moving about inside the fenced area. Well, pretty soon a vehicle appeared and drove out the code activated gate; he stopped, and was checking us out when I waved him over. To my surprise after explaining my actions and events happening over on the dry lake he said "hop in we'll go inside and have a look." After a quick driving tour of the facility I began to get a stronger signal in the direction from the west outside the fence and was very relieved that the model wasn't somewhere up in that massive plumbing structure of the steam plant. The terrain in that direction looked very rough with dense chaparral, even too much for my bike, but my guide told me of a road not too far away that ran in the direction I was looking at. So after a big thank you, Jim and I continued on and eventually came upon the road. It was high centered and deeply rutted, but my 2WD 4Runner was up for it. We drove about 1/4 mile, making several stops to check until we came to some high ground, checked again and not more than 150 feet away there it was waiting for me. What a great feeling. It was 4:25pm, and 12 miles from the launch site. I didn't get a third flight...but had a great result.

I'd also like to give a big "thank you" to Hal Wightman, George Walter, and Gene Wallock for great job in putting on a really fun SAM Champs.

**SAM Champs Flying by Ron Thomas** – My wife Sue and I arrived at the RV park in Boulder City on Friday afternoon. It was very windy upon our arrival but I still held out hope of calmer weather on Saturday and Sunday so I could get a little testing in. As it turned out, Saturday and Sunday were also windy and I did not get any test flights in.

On Monday morning the wind wasn't too bad and I still needed to test fly my Sailplane for C-Pylon. I put up a test flight and made some minor trim changes. I wanted to put up one more test, before attempting an official flight, but the McCoy 60 refused to start again. After an hour of frustration and fooling with it, I decided to get out my back-up model, my Playboy Senior with a Super Cyclone for power. The Playboy was in good flying order, and I proceeded to put up three maxes. My friend Larry Davidson was set up a few places down from us and he said he dropped one of his flights. I prepared to put up my fly-off flight, and told Sue, "No Overruns!" The Playboy fell short of the 4<sup>th</sup> max and we posted the time. The other Power Championship event for the day was B Fuselage. I flew a Cloud Chopper with a converted OS .25 for power. I was able to get two maxes and dropped one flight in that event. At the end of day one, we could not believe we had gotten two firsts.



Ron Thomas with his Super Cyclone powered Bomber

Tuesday morning greeted us with another day of great flying weather. We again had a good day of flying, posting first place with my ED Hunter 19 powered Ascender in A Fuselage, and first place in By Pylon with my ED Hunter 21 powered Alert. Not everyone had such good luck. Larry Davidson, who is always a tough competitor, had some real unfortunate luck. He folded the wing on his Ascender (someone later told them they saw the DT pop while it was climbing) and had problems with the engine on his Alert.

After his terrible Tuesday, Larry put up three maxes on Wednesday morning with his great running Alert in A-Pylon. We joked that Larry should have got a commission from Klarich Kits because Klarich sold out of Alert kits after people saw the model fly (even I bought one). Larry won the event, and I ended up second with my Elfin 2.49 powered Strato Streak. The other event for the day was C-Fuselage. I flew my Hayseed powered by a McCoy 60 and it did so many loops, Larry had to remind me I didn't get extra points for aerobatics. Somehow, I managed to get first place with it, just not quite sure how. Wednesday evening it finally sunk in that we had 29 points!

Fuel Allotment and 30 Second Antique were the events for Thursday and the last two for the Championship. I needed to get a test flight on my Bomber for Fuel Allotment as I had just switched from a finicky Brown Junior, to a more steady running Super Cyke. I had never flown the Bomber in a competition and had only put up a few test flights on it at our Perris test field. So, with the new combo, I was not quite sure what to expect. After a test flight, I made a few adjustments and went for an official. However, about three minutes into the flight, we realized the watch had stopped. After winding the watch, we tried again. Our second and last attempt was good enough for second place. I then got my Rambler out for 30 Second Antique. I went straight to flying officials, but dropped the first max because the model needed a trim change. That's funny, because it had just flown so good at Perris! The next two flights were maxes, and by a slim margin, took a first in the event.

I feel very fortunate to have won the Power Championship against such great competitors. Sue and I had a good time flying and socializing. We really want to thank everyone involved for all their hard work and excellent organization. A special thanks to Gene Wallock and his crew. We were also surprised and excited to find out Sue was receiving a Sweetheart of SAM Award. What a great week.

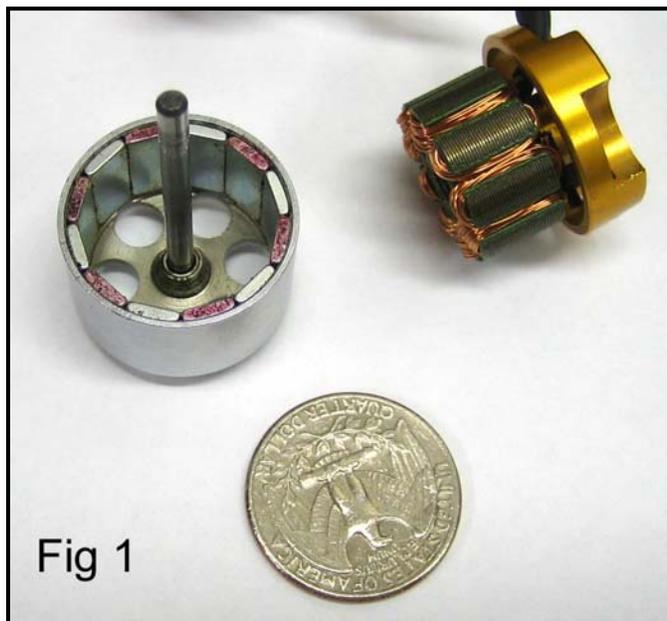
**'Current' Technology – Going Electric Part 2 By Bernie Crowe**

A couple of months ago we looked at free flight electric power systems using the more common DC (brushed) motors and dependable Nickel Cadmium (NiCd) batteries. These devices have a lot going for them. They are simple to use, relatively inexpensive, and will take a lot of abuse. The newer brushless motors and Lithium-based batteries require more components to operate and maintain, are more expensive, and have some safety issues. So why even consider them? Simply put, they are lighter and more efficient, and therefore offer higher performance for a given weight. Let's take a closer look at them. .

**Brushless Motors:** An electric motor works by passing a current through a wire at right angles to a magnetic field. The resulting force is arranged so as to turn the armature (the wire windings) and thus the motor shaft. In a DC motor, to get the current to flow through the rotating armature we have to use slip rings and brushes. If the current flowed in one end of the armature and out the other, the armature would turn until it lined up with the magnetic field, and then stop, thunk. So we split the armature down the middle, and call it a commutator. Now as the armature turns, the current reverses with each rotation, and the motor keeps turning.

The problem with commutators and brushes is that the brushes create friction, limit the current flow, and tend to wear out. If we switch the current electronically, however, we can do away with the brushes. This is precisely what brushless motors do. They have less friction and lower losses than a brushed motor, but now they require some sort of electronic switching device to alternate the current through the windings. However, there's no brush friction, and by using modern high-efficiency magnets and some clever re-design, they can be made very light and efficient.

The obvious layout for a brushless armature windings on the outside, have to rotate to "commutate" the magnetic core becomes the rotor. This is a common layout, especially for stepper motors. An alternative layout puts the windings back on the rotating around them. This is known as an "outrunner" motor, and it can be made very light and efficient with high torque. Fig 1. shows a typical outrunner motor. It is one inch long and weighs one and a half ounces, yet is capable of absorbing 100W of electrical power and turning it into mechanical energy. The rotor is the silver thin neodymium "can" attached to the shaft, and the magnets are attached to the inside of the can. The stator includes the armature, the wiring and the mechanical attachment points.



motor is with the since they no longer current. Then the attached to the shaft. for stepper motors. windings back on the rotating around them. motor, and it can be high torque. Fig 1. one inch diameter, half ounces, yet is electrical power and The rotor is the silver thin neodymium the can. The stator includes the armature, attachment points.

**Lithium Batteries:** A voltaic cell is a device that converts chemical energy into electrical energy, and consists of an anode, a cathode, and an electrolyte – plus some kind of

container to keep it all together. The chemistry of the cell is chosen carefully so that free electrons in the electrolyte (which may be liquid or solid) congregate at the cathode. This leaves the anode with a positive charge, and the cell therefore has an electric potential. The size of this potential (the voltage) depends on the cell chemistry. Carbon-zinc flashlight cells give 1.5v, NiCds 1.2v, and lithium polymer (LiPo) cells have a whopping 3.7v.

Connect the cathode and anode of any cell together through a device such as a motor, and current flows through the device to operate it. As electrons are removed from the cathode, the cell becomes unbalanced and more electrons are drawn out of the electrolyte to replenish them. This will continue until the stored chemical energy is exhausted, and the cell is flat. The rate at which electrons can be replenished depends on both the chemistry and the physical design of the cell. Generally, the more area on the cathode plate, the higher the current that can be drawn. In certain cells, the process is reversible, so that when the cell is exhausted, applying a voltage across the terminals will cause the cell to recharge. In all cells, there is a limit to how fast energy can be pulled out, and how fast it can be stuffed back in.

A battery is a collection of cells, connected in series to increase the voltage, or in parallel to increase the current that can be supplied. The container for the battery provides both mechanical support and containment of the electrolyte. What the container is made of depends very much on the cell chemistry and the size of the battery and its intended application. Lead-acid batteries in automobiles are housed in massive rubber boxes, while household carbon-zinc flashlight cells and NiCds are much lighter but still are cased in metal. Modern batteries like lithium-polymer (LiPo) use a solid polymer sheet as the electrolyte and the ion-exchange membrane, and this membrane and the anode and cathode are bonded together. Because of this, the LiPo battery doesn't need a metal case pressing the parts together, and they are encased in plastic only. This lightweight sheath is one reason for the LiPo cell's high power-to-weight performance. The high voltage per cell means that fewer need to be used, and the rest of the performance gain comes from its high storage capacity chemistry.



Fig 2 shows a typical LiPo battery. This one is a 3-cell 480 mAh battery capable of providing 7.2 amps continuous current at 11.1v. It weighs a mere 42g (1.6 oz) and is 2.4" x 1.3" x .45" in size. An equivalent NiCd battery would consist of 36 110 mAh cells – 9 in series and four in parallel. I don't have direct comparison numbers, but I estimate that such a NiCd would weigh about 150g or 5.3 oz, so the LiPo is about one third the weight of the conventional NiCd. Notice too that the LiPo battery is rectangular, not cylindrical in shape like most NiCd batteries. This makes the cells easier to stack into batteries, and makes the

batteries easier to stow in the plane.

As attractive as LiPo batteries are, there are a couple of serious issues to pay attention to. First, they must not be overcharged, or there is a danger of explosion and fire. **Never charge a LiPo battery with anything other than a purpose-designed LiPo charger.** It is good practice to put the battery into a ceramic container of some kind when charging so that if a mishap occurs the problem is contained. There are purpose-built devices for this on sale at your hobby store, but I use an old jar that once held marmalade. Many folks will advise you never to leave the battery unattended while charging. Second, manufacturers say that LiPos don't take kindly to being discharged below 3v per cell. Your battery will be protected from over-discharge in flight by the ESC, which will have an automatic cut-off at the critical voltage. However, if you flat the battery on the bench it may be rendered unchargeable.

Despite all these caveats, my own experience with Lithium Polymer batteries has been catastrophe free, despite having made a couple of serious (if silly) errors as I got used to them. I have drained batteries flat by leaving them in the plane overnight, and they have recharged and become operational again, though they may have sustained some loss of capacity. I connected one battery incorrectly and got a dead short; the battery swelled like a balloon and got real hot. I got it outside quickly and later disposed of it at my local hobby shop. There was no fire and no damage to anything other than the battery. Lithium Polymer batteries are reputed to be more stable than the liquid-electrolyte Lithium Ion batteries commonly used in cell phones and lap-top computers. So, don't be afraid of LiPos, just handle them with respect.

**Look for Part 3 next month where Bernie delves into the electric system and more...**

## Club Contest for November

We have had poor attendance at a few of our club contests, including the event for November which featured 4 ounce Wakefield for rubber, and ABC Pylon for power. It is not because of Allan Arnold, who has flown more than anyone else this year (my observation). It seems each month that he is able to fly both the rubber and power, and did so again this month. Allan was the lone participant in 4 ounce, flying his Vernon Eagle to great success with flights of 174/142/83 seconds. Participation in power was twice as good as rubber! Ron Thomas kept the run on from the SAM Champs with another first place (Darn, that boy is good!) and Allan Arnold was only 10 seconds back. Ron maxed out with his Elfin powered Strato Streak, and Allan had two maxes and a 170, to just miss having a fly-off. Good flying you guys.

Bernie Crowe has put a lot of effort into organizing the club contests, and it would sure be nice to see participation grow and reward his effort. There has been a lot discussed to this end, but no short answers. If you have any suggestions, please contact Bernie Crowe. If you would like to volunteer to run one of the events, Bernie would love to hear from you too!

Thanks to all who have again contributed to the newsletter. It has been a huge help.

## Events Calendar

**SCAMPS Meeting, Christmas Party, Home Town Buffet, December 6, 6:00 PM**

**SCAMPS Club contest {Gollywock Mass Launch/1/2 A Gas (Modern)}, Perris California, December 12**

**2008 Gas Powered Tether Car run and Collecto, Wittier Narrows Recreation Center, January 12 2008**

**Gas Powered Tether Car run and Collecto, Wittier Narrows Recreation Center, September 13 2008**

More SAM photos from Bob Harper (Thanks Bob)



Bob Harper hit a little snow on his way to SAM Champs 2007



Bruce Augustus has really done well with this Strato Streak



Carl Redlin Launching a test flight



The end of the SAM Champs, the Banquet.