



S.A.M.-Antics

The Official "Fly" paper of the
SACRAMENTO AREA MODELERS
AMA Charter Club #1822

June 2016

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PRESIDENT'S REPORT

There is not a whole lot going on this month, which is a good thing in many ways. Besides lots of flying and great members, the friendships that are made at the flying field says it all.

Don is planning to get the field mowed soon to reduce fire hazards and improve the overall great look of the field. I would like to give a huge shout out to Don, John and Gary for all the work they have put into the field. The flying field is looking great as they spend many hours on making improvements and keeping all the grass and weeds cut down. Thanks guys for keeping this field looking great and keeping it a Class "A" flying field.

The next general club meeting is August 21st. As per some request from some of the members, I will be putting together an agenda in the August Newsletter so everyone will know what we will be discussing in the meetings. If you have any other request or things you like to see, please feel free to come and talk to me or anyone on the board. If it is possible and feasible, we will try to make it happen. We love the input and we take all of it to heart.

Till next time, fly safe and have a great time at the Sacramento Area Modelers Flying Field!!!

JR Schiager

"Good Sportsmanship Equals Fun For All"

SAM Board Meeting Minutes

Date: May 12, 2016

Location: Perko's restaurant at 50 and Bradshaw

Time: 7:05 PM

Board Members

Present: President: JR Schiager, Vice President: Jerry Cunningham, Secretary: Jim Smith, Treasurer: Steve Brown, Publicity: Mark Forister, Events: Kimo Dias, Field Marshall: Don Atwood, Membership: Bob Obregon, Safety: Sergio Varo

Absent: N/A

Officer reports

President: JR started the meeting by letting the board know that the tall grass is ready to be mowed at the club outside of the normally kept area. JR will be looking to renting a device to cut the fields with a tentative date of June 4th. Last year's cost was roughly \$500 and we should be looking to spend about the same this year... this item was accounted for in this year's maintenance budget. The next topic was with regards to this year's open house. JR thanked and congratulated Jerry Cunningham and Jim Smith on the job they did. Great participation from the membership. This Sunday May 15th is the general meeting at the field... Jerry Cunningham will be picking up raffle items. Next board meeting will be at a time and place to determined later.

Other officer reports:

Vice President: Jerry Cunningham did not have anything at this time.

Membership: Bob Obregon let the board know that we are at 141 members to date. He will be looking to email the 2015/2014/ and possibly the 2013 members that have not renewed their membership and encourage them to renew. There was some discussion on how many members are needed to meet each year's budget without a dues increase. The board will be looking at this closer over the next few months.

Safety Officer: Sergio Varo shared that we had 10 eye wash bottles donated to the club. John R. and Gary S. helped to have them installed. Sergio was informed that the first aid cabinet needs to be restocked and he will be looking into having that done in the near future. Any members knowing of needed items are encouraged to reach out to Sergio directly. This way he will be able to stay on top of things even when not present at the field.

Publicity Officer: Mark Forister let the board know that things are a bit quiet at this time. He with JR's help was able to hand out a lot of open house flyers at the RC Country swap meet. He is planning to put out some advertising on Craig's list for the annual Bud Garric Pattern Contest.

Treasurer: Steve Brown shared the current club financials. We are currently on budget. The budget should be positive at year end due to some improvements to the cost structure for some of the expenses this year.

Field Marshall: Don Atwood spoke about the outer field mowing as well and also discussed repairs for some of the runway cracks. There are 5-6 pot holes on the road that need repair. The Auger in roof also has a leak. Don and his team will be looking to

do these repairs as soon as possible. (Sec. notes..... anyone able willing to help.... See Don Atwood). Mower is also up and running. As a reminder, there will be a work day when the outer field is mowed. There will be plenty of items besides the mowing for the membership to join in on. More information to come.

Events: Kimo Dias thanked everyone on the successful open house and mentioned the upcoming pattern contest for this weekend (May 14th).

Secretary: Nothing to report.

New Business:

Don mentioned the idea regarding having SAM shirts made for club members that go to outside events. This is early in the process but Don will report back with what he learns.

Old Business:

N/A.

Motions:

N/A.

Meeting adjourned at: 8:25 PM

Respectfully submitted,

Jim Smith

Secretary

SAM Club Meeting Sunday 05/15/16 Location: Club Field

JR Schiager Opened the meeting at: 3:40 PM

Guests Present: None

New Members Present: Jan Yamauchi

Officer Reports:

President: JR Schiager opened the meeting by welcoming everyone to the meeting and asked if there were any guests or new members present.

JR then reported that June 4th will be a work party (tentative) and we are looking to cut the grass in the fields, patch the run way and do a lot of club clean up. With nothing else on the agenda JR then opened the meeting up for comments. Jerry Cunningham thanked everyone for the support at the open house and let everyone know about the great job that the members did in support of the community outreach. Nine new members and a lot of great PR for the club was gained via the open house.

JR then thanked Gene for his job on the Newsletter (Great Job Gene!). JR also thanked John R. and Gary S. for their support as field supervisors and their efforts to keep up the field. John and Gary have done a great job of keeping SAM looking good (thanks guys).

Vice President: See Above.

Treasurer: Steve reported that we are going to come in under budget this year and let anyone know that if they have questions regarding the club financials to ask him directly.

Safety: Sergio wanted everyone to know that there have been some eye wash stations installed at the club by the John and Gary.

Secretary: Nothing to report.

Membership: Not present.

Publicity: Not present.

Events: Not present.

Field Marshall: Not present.

Old Business: N/A

Show and Tell: N/A

Raffle:

*Noel – Zipper airplane, *Jeff – Ultra Stand, *Noel – Mpi Switch, *Sergio – Hobbico

Retracts

*Jeff – Lipo Bag, *George – Heat gun

Meeting Adjourned at 3:55 PM.

Respectfully Submitted:

Jim Smith – Secretary

ESCs or Don't let the 'magic smoke' out

So, we have been discussing lipos, how to care for them, etc. Let's switch topics and talk about another component in the chain of equipment that makes that twisty thing (propeller) up front spin around. Just like lipos, ESCs have all sorts of jargon around them. Brushed, brushless, BEC, Opto-isolated, timing, continuous/burst, current, amps, ripple, default settings, brake, LVC, auto cell count, end point setting, blah, blah, blah. It can be very intimidating to try to understand all these, particularly if you are just starting to fly electric. A lot of modelers get into electric powered by buying a RTF setup and they don't have to worry about most of this stuff since it will be factory set. Plug in the batteries and go fly (or close to that). But, over time they will want a larger plane, or to retro-fit a glow model to electric, etc. Now, some of those confusing things might become important. Luckily, only a few of them are usually critical.

First, let's discuss how an ESC works. We will limit the discussion to brushless ESCs since the vast majority of the ESCs in use today are for brushless setups. Basically, the ESC is used to control the RPM of the electric motor just like the throttle servo in a glow model. It takes the throttle signal from the receiver and uses that to control the timing of the pulses going to the motor which in turn effects the rpm. Yes, that's a gross over simplification of how it works but we will get more specific later.

Our brushless motors have 3 leads from the ESC to the motor. By changing the pulses on the multiple combinations of pairs of those 3 wires, it causes magnetic fields to be generated in the coils of the motor which in turn pull/push the magnets past the coils. doesn't matter if it is an in-runner or an out-runner motor, net result is the shaft/prop spins and away you go.

Most of our ESCs are programmable in that there are settings in the ESC that can be set (programmed) to effect the way an ESC responds to receiver throttle signals, the voltage from the lipos, or what temperature the ESC is experiencing. Some ESCs are programmed thru the transmitter via the throttle stick, some are programmed thru dedicated programming cards, or both. Some of the more common programming options include LVC (low voltage cutoff), timing, end point limits, poll count, reverse and cell count. We will cover what these options effect in the ESC, then in future articles we can get into more specific details of what how some of these can be used to make the ESC behave the way we want.

First, let's review End Points. Just like a throttle servo, the ESC is receiving throttle position signals from the receiver. We need to set the ESC so that it recognizes what signal value (pulse width) from the receiver is 'high throttle' and

which signal value is ' low throttle'. Some ESCs let you program the End Points by getting into programming mode with the ESC and then move the transmitter stick to high throttle and after a short period the ESC will 'beep' indicating it now recognizes the signal for high throttle, then move the transmitter stick to idle and hold it there until the ESC beeps indicating it now recognizes the low (idle) throttle setting. This is just one way some ESCs can set End Points, there are other approaches depending on the brand of ESC you have. Check the manual/directions for your ESC for detail instructions. Now we have the high and low throttle stick positions set.

Next, the ESC needs to know how many cells you will be using in your lipo power pack. Some ESCs let you set the cell count directly, some use an auto sensing approach where it checks the voltage of the lipo power pack and calculates how many cells you pack has. Both approaches work but I prefer to manually set the cell count. That way the ESC doesn't have to decide how many cells it may be dealing with, it is a fixed value and if I put in a discharged pack, the ESC will let me know quickly there is a problem if I take off with a discharged pack. Yeah, I know, you should check the voltage before every flight but believe me you will put a discharged pack in your plane at some time in the future if you haven't already done it.... :-) So, once we have the cell count established, let's tell the ESC what minimum voltage per cell the ESC should use before it goes into LVC (low voltage cutoff). Some people use 3V per cell, I prefer about 3.2V per cell, gives me a little more warning before I totally run out of power. I also recommend you use a timer to limit your flight times rather than LVC to protect your packs. Then the LVC becomes a secondary warning should you forget to set your timer. Remember, the LVC value is for cell voltage under load, not the resting voltage at the end of flight. The resting voltage will be higher than the voltage under load by about .3 to .5 volts per cell.

OK, we have the end points set, the cell count established and the LVC programmed into the ESC. What next? Well, that depends on your motor. Usually, the ESC needs to know how many polls the motor has. The ESC uses this value to determine how timing will be used with the motor to control speed, acceleration, etc. If you don't know how many polls your motor has, and it is an out-runner, just count the number of magnets inside the motor bell, they are usually visible. For the motors I use, they poll count is usually 14 or 20 polls. It will always be an even number for outrunners. For in-runners, you will probably need to look at the documentation for the motor since in-runners are usually closed and you can't see the coils or magnets. So, depending on your ESC, you need to program the poll count into the ESC. Some will automatically detect the poll count but just like LVC, I like to use a specific value.

Finally, you need to tell your ESC what timing to use. Note, a lot of ESCs will do this automatically but you can usually set the timing manually if you want. I have found the 'automatic' defaults in ESCs will usually give you a decent running setup but manual programming to fit your specific setup will usually result in a bit more power or a smoother running motor when you find the right combination. The automatic settings will probably not get you the maximum efficiency from the motor either. The defaults are usually more 'safe' and designed to get you in the air with minimum effort. After all, we are a society demanding instant gratification, aren't we.... LOL For the large out-runners I use, a value of about 24 degrees seems to work well. Go any higher than that, the motor usually cannot control the timing under hard acceleration and the motor will start to run hot. Some motors use less but for the pattern motors I have used, 24 degrees works well. Your motor documentation will usually list the timing needed.

The motor will probably run just fine now that the basics are set. One last thing might need setting. So you get it all set and darn it the prop isn't running backwards. Some ESCs will let you set a 'reverse' option for the motor which will make the prop turn the other way. Or, you can take the easy way out and just reverse any two wires to the motor and it will run the other way. Brushless motors really don't care which way they turn, all the timing, LVC settings, etc. will work in either direction.

Now you have a Lipo/ESC/Motor combination that runs in the right direction and recognizes high throttle and low throttle. Next month, we will go into some of the other options your ESC may have, and nuances of transmitter/ESC setups and how you can program some functions in combination with your radio to make operation of your plane safer and more convenient.

So, be safe, have fun, don't let the magic smoke out!!! Happy Landings
Don atwooddon@aol.com

May 14th Sacramento Spring Pattern Contest (Fifth Annual)

The weather gods were smiling on us again for the 1 day pattern contest May 16. The days leading up to the contestants had some rain/wind but luckily that faded away. Gentle breezes, mild temps and bright sunshine made for a great day. This happened for all our Spring 1 Day contests so we are indeed fortunate. On Friday, several pilots showed up for practice and it was pretty busy on the flight line for most of the day.

We started the SAM Spring Simple Contest format in 2012 as an experiment to see how simply and quickly we could run a contest and get 4 rounds in before mid afternoon. The focus was getting started on time and minimizing activities like a pilot's meeting which all run longer than expected. For this contest, the pilot's briefing is a printed document outlining what would have been covered in the typical briefing. We also do not allow any practice flights before the contest begins. The early morning practice flights are typical at contests and take quite a bit of time and delay the beginning of the contest. We set up all the flight lines and judging panels Friday night so that was also not a reason for delay on Saturday. Since this is the 5th year for this format, all the pilots were on time and ready to go on schedule.

The contest started on schedule at 8AM with judges in their chairs and pilots in the ready boxes. We successfully finished 4 rounds by 2:35 PM due to everyone's cooperation and support to keep things moving. Thanks to Ron Davies for being the Assistant CD, and a special thanks to Peter Vogel for managing the score keeping duties all day. Peter's electronic judging/scoring system continues to improve in reliability and ease of use. It utilizes wireless game pads to communicate individual maneuver scores back to a central computer that records scores, calculates k-factors and prints pilot review sheets. Worked great and really saved a lot of time and effort. Typically, when a pilot finished a flight and has his plane back in the pits, Peter was handing him his printed score sheets. It used to take 30-45 minutes to get individual rounds score sheets due to the manual entry time. Other areas of the country are now starting to use Peter's system and also seem very happy with it. Many, many thanks to Peter.

We had 17 contestants which is near the maximum we can handle and still finish 4 rounds before 3PM. The two biggest classes were Intermediate with 4 and Masters with 7 contestants. More than half the contestants were from the SAM club. GO SAM!!! Below are the results for contest:

Sportsman

Mack Patterson	3000
JR Schiager *	2897

Intermediate

Peter Vogel	3000
Fred Light*	2926
Dan Lipton	2899
Ron Davies*	1884

Advanced

Mathew Morell*	3000
Lawrence Tougas*	2500

Masters

Derek Emmett	2984
Jon Carter*	2962
Bob Obregon*	2916
Dale Olstinske*	2891
Jon Bruml*	2814
Frank Capone*	2813
Bill Sneed*	2749

FAI (P15)

Don Atwood*	2000
Adrian Wong *	1887

* SAM member

As previously mentioned, the idea was to keep this contest as simple as possible. So, we did not plan any lunch services and initially told people to bring their own. Frank Capone, Dale Olstinske and Bob Obregon felt it would be a good idea to go ahead and have a lunch tent again. They put together a great BBQ and made roast beef sandwiches plus all the trimmings available to pilots and guests. Great job guys, it really made for a nice day. And those roasted peppers were great on the sandwiches.

Many, many thanks to the SAM club for the use of the field, our contestants and visitors are always impressed with the facility and we enjoyed great weather, great competition and good times. Let's do this again next year!!!

Don Atwood

DO YOU HAVE A VALID AMA CARD?

Remember: Our By-Laws and the County of Sacramento require a current AMA Card to fly at the S.A.M. site. Also did you know that your current status as a **member requires a valid AMA card?** If you do not have a current AMA Card in your possession or proof in the form of a fax or e-mail from AMA, **do not fly**. If you fly without AMA membership, you will be in violation of our rules and may be suspended from flying at the S.A.M. site. Contact the AMA at 1-800-435-9262 for membership when paying via credit card.

FLIGHT INSTRUCTORS

Are you new to R/C flying? Or perhaps you need to brush up or even just want to talk with one of our "Pro's." SAM's corps of Flight Instructors stands ready to help you. You will usually find at least one of them at the flying site on Tuesdays or Fridays. You may call **Jim Lichtenberg** our Flight Instructor Coordinator at **916-681-5335** or e-mail at rcflyer999@comcast.net and he will arrange for the assistance you need. If **Jim** is not available, you can contact the Assistant Flight Instructor Coordinator, **Ron Davies** at **916-682-7902**. Or you can call our flight instructors directly.

Jim Lichtenberg <i>Flight Instructor Coordinator</i>	(916) 681-5335	rcflyer999@comcast.net
Steve Brown	(916) 765-3555	imredfox@comcast.net
Tim Sorenson	(916) 541-7009	tsorenson@rcip.com
Ron Davies	(916) 682-7902	rjdavies@frontiernet.net
Geoff Hodies	(916) 990-8938	greenfishbone@iclod.com
Jeff Montrose	(916) 689-8337	Jeffm00@comcast.net

SAM-Antics SUBMITTALS

Deadline for submissions to the SAM Antics is the 27th of each month. Please send articles as Word text or as text in an email to the Newsletter Editor, at info@sacramentoareamodelers.com.

Submittals may be edited for content and length.

Sacramento Area Modelers



JR Schiager & Kimo Dias Presents:

1st Annual Nitro Madness



Stelero #84, Reno 1987

WARBIRD RACE

July 31, 2016



TRC1 omR 185 omR16

Itinerary for Sunday

Registration Starts at 7:00 a.m. and
Closes at 8:00 a.m. Sharp!(No Exceptions)
Worker's meeting – 8:30 a.m.
Pilot's Meeting – 8:45 a.m.
Racing Starts – 9:00 a.m.

There will be 3 heats and mains for each
bracket

Send Payment to:

JR Schiager
3500 Data Dr #253
Rancho Cordova, CA
95670
(916) 705-7778
Please make checks
payable to SAM

**CASH PRIZES IN ALL
BRACKETS!**

**NO FREQUENCY
CONFLICTS!**

HARD HATS REQUIRED!

Version 1-1-16 SAM Warbird
Rules Apply

3 ways to Pre-Register

1. Send in Entry Form and Check
2. Pay Cash to me directly
3. Fill Registration Form online www.sacramentoareamodelers.com

Bronze Class

Entry Fee: **\$25.00** in Advance
\$30.00 day of race

Entry fee must be paid by
Sunday 8:15 am.

Entry fee includes the \$5.00 Surcharge

Silver Class

Entry Fee: **\$35.00** in Advance
\$40.00 day of race

Entry fee must be paid by
Sunday 8:15 am.

Entry fee includes the \$10.00 Surcharge

Gold Class

Entry Fee: **\$50.00** in Advance
\$55.00 day of race

Entry fee must be paid by
Sunday 8:15 am.

Entry fee includes the \$15.00 Surcharge

Race Entries will be limited to the first 50 Entries and Must show proof of Current AMA

Registration (one per class)

Please write legible and complete full registration

Name: _____

Full Address: _____

Telephone: _____

Email: _____

Plane & Description: _____

Engine Size: _____ Frequency #: _____

Event Choice (circle one):

Bronze Silver Gold

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See website for more sponsors!!!

SAM 2016 SCHEDULE OF EVENTS

Date	Event	Location
7/31	Nitro Madness Warbird Race	SAM
8/21	SAM General Meeting	SAM
8/28	SAM Picnic and Fun Fly	SAM
9/8/ thru 9/11	11th Annual Trashman & YS Classic Warbird Race	SAM
9/18	SAM General Meeting (<i>Nominations for the Board</i>)	SAM
9/30/ thru 10/2	SAM Field is Closed for Flying	SAM
10/1	SAM Swap Meet	SAM
10/8 thru 10/9	Bud Garric Pattern Contest	SAM
10/16	SAM General Meeting (<i>2017 Events Scheduling</i>)	SAM
11/20	SAM General Meeting (<i>Board Elections</i>)	SAM
12/10	SAM Christmas Party	SAM

* Dates subject to change upon S.A.M. Board approval

**SACRAMENTO AREA MODELERS
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P. O. BOX 292441
SACRAMENTO, CA 95829**

Web Page: www.sacramentoareamodelers.com

Email: info.sacramentoareamodelers.com

Keep Current by

Checking the SAM Website Regularly.

Like SAM on Facebook Stay current on news and events

The Back Page

This & That

Some of us are planning a trip to the Hiller Aviation Museum on Wednesday June 29. Leave in the morning, visit the museum, have lunch and return in afternoon. Admission is \$15.00. If interested please contact me and we will group up to limit the numbers of cars to get there and back. 530 676-4233 or by email geneal123@comcast.net

Thank You! Thank You! Thank You! Thank You! Thank You!

Remember the two pups that appeared at our field for a couple of weeks that most of us became fond of? Well, John Gray (a club member) and his wife Karen rescued and found homes for those two. If you see John or his wife at the field, shake their hand and give them at least one atta boy.

Jim Smith our club Secretary, shares a misfortune and provides useful information.

Hello SAM members,

For those of you who have not heard, I recently had some items stolen from my garage. I live in the Greenhaven/Pocket area of Sacramento and on Monday May 16th I had someone during the night enter my garage via my remote in my vehicle and steal a couple of planes and a newer Honda generator. Since the event I found out a few helpful items that I thought that I would share with the SAM membership. First, if you keep a garage opener in your car.... DON'T. Take it inside with you at night. Second, unless you have a significant loss, it really isn't worth it to file a claim with your insurance company. Third, thieves **s___** they really **s___**.

- **S___** word rhymes truck or yuck

For Sale

AT6 Texan, yellow AF scheme, foamy, Retracts, servos installed.

Needs 40+ size electric power system 4s battery and rx. Fair condition, not broken.

Asking \$100 Inquiries by e-mail to Ross Martin rossgolf@sbcglobal.net

Grand Cruiser Twin by Dynam ARF foamy. Perfect condition. Includes extra motor and prop.

Only needs rx and 3S battery to fly. Asking \$150 Inquiries by e-mail to Ross Martin

rossgolf@sbcglobal.net

(continued next page)

Eagle 2 Trainer. Vintage 1980 kit, built 2015. Perfect condition, includes servos, OS 40 4 cycle engine, wingspan 64” ready to fly , only needs rx. Asking \$200 Inquiries by e-mail to Ross Martin rossgolf@sbcglobal.net ,

Multiplex Easy glider 2 meter span, foamy. No motor or servos. Fair condition. Asking \$40. Inquiries by e-mail to Ross Martin rossgolf@sbcglobal.net

P-40 War Hawk (Plane only) approx.. 5ft wingspan. New never flown. Email for picture, Best offer. Contact Jim Hatfield at handnhand65@hotmail.com

Wanted

Reasonably priced floats for a forty sized plane or even a completed float plane. Contact Gene Strobel at 530 676-4233 or geneal123@comcast.net

To post on the “Back Page” please contact Gene Strobel at 530 676-4233 or by email geneal123@comcast.net Dead line for submittals will be 26th of each month