

September 2006, Issue #119
Official Newsletter of the SCCMAS "Tomcats"
AMA Club Charter #110
www.sccmas.org



Next Meeting: Thursday, Oct 5, 2006 at 7 PM.

Location: Hayes Elementary School. See map on page 4.

Cover Photo: Harold Warner's Great Planes Super Stearman. Engine is a Zenoah G-23. Pat Rose photo.



Tim Hurley Jr., 10 years old, was checked off by Tim Jones in July. Tim was taught to fly by his dad, Tim Hurley Sr.



Bahman Dara directing things at the Electric Fun Fly. See pages 7 and 10 for more photos. Jim Patrick photo.

Michael thanks the following members for helping at the Reid Hillview airport day. Mike Conrardy, Reggie Dell Aquila, Ron Bodwell, Greg Szoke, Shawn

Berkheimer, Dave Gooden, and Sam Sunzeri.



Club meeting at the field on July 22.

In This Issue	
VP News	3
Meeting Photos	3
From the Editor	4
Mtg Announcement	4
Training	5
Secretary's Building Board	5
Treasurer's Report	5
Safety	6
Contest News	7
Training	7
Electric Fly In	10
Center of Gravity	11
Northrop Gamma	12
Event Flyers	13
Governing Board Members/Sponsors	17



## Flyin Fast - VP News

#### By Michael Luvara

This month, I'd like to first thank Steve Snell for his five+ years of service with the SCCMAS. In 2000, Steve stepped up and took on the SCCMAS website responsibility within the SCCMAS and

helped take our website to the next level, adding the webcams and weather capability. In August, Steve elected to step down from the SCCMAS board to pursue more time with his family and we can't thank him enough for all that he has done for the SCCMAS. Thanks Steve!

With this said, SCCMAS member Dean Sala has stepped up to take on the SCCMAS webmaster position. Working with several others, Dean will be revamping the SCCMAS website and adding a new look and features. One of which is a new

forum software with an integrated calendar section. This is only the beginning and keep your eye out for a more dynamic and changing website in the coming weeks.

As we touched on in the last newsletter, the annual airshow in July was very much one of the better shows that we have had in years. Such an event does not go on without the help of our members and I personally can't thank them enough. When one sees the amount of work that goes into the annual airshow by volunteers, they truly see how dedicated the members are that the SCCMAS has. In addition to all the volunteers that gave so much of their free time, we would like to thank the following sponsors, whom helped make the show an even better one.

#### Airshow Sponsors

Sheldon's Hobbies, HobbyTown USA San Jose, HobbyTown USA Sunnyvale, AEROMICRO, Penn International Chemicals, New Century Transportation, Santa Clara County Parks and Recreation Dept.

We're moving into probably the heaviest part of the flying season as Fall arrives. Typically with less daylight hours, fewer people traveling, and great California weather, expect to see a lot of flying going on. I know I'll be getting some well deserved stick time in the coming months!

Lastly, thanks to those who braved the heat at our annual BBQ club meeting in July. Never before have we had such

heat at this event in the evening. The thermometer at the shack read 101 deg at 6pm! Speaking of meetings, we're going to make more of an effort to schedule guest speakers at the club meetings. If you've never been to one of our meetings, come on down. The next one is on Oct 5<sup>th</sup> at 7:00pm. See details elsewhere in the newsletter.

Until next issue, Michael

Meeting at the field on July 22. Special record heat ordered for the event.

Our Secretary hard at work.



Servo Chatter | Sept 2006



Page 3



## From the Editor

#### By Pat Rose

I have received many favorable comments on the July 2006 issue of Servo Chatter. In particular, many complements about the photos and the antenna aiming article. Funny how the antenna aiming article brings out the stories. I surprised myself when I caused an antenna aiming "hit" today (19 July) at the field. The situation was when my transmit

antenna was pointed straight out and level towards my plane and the plane flies from right to left and passes just in front of my position, about 200 feet out. When my plane passed in just the right position, the plane would "jump" for an instant, then regain control. I was able to repeat this glitch—all along I thought turbulence was causing the problem.

Try this video of a B-52: www.mcgirt.net/RC/VIDEOS/Giant\_B52/B52\_flight2.wmv

Try this video of a P-61: http://www.zenoswarbirdvideos.com/P-61.html

Thanks to Daniel Petroff for supplying the article on airplane CG (see page 11).

A big **THANK YOU** for installation of all six sections of new safety net. The members volunteering their time were: Jim Thompson, Ray Brown, Jack Patterson and Ray Fraser. Your editor has punched his share of holes in the fence, and I really appreciate these guys doing this.

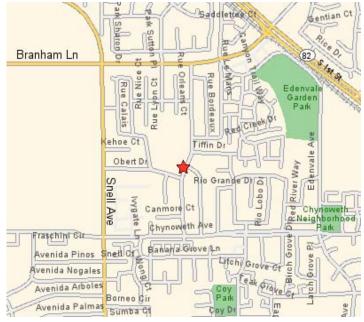
**Help Wanted:** Raffle Coordinator. Michael would like to find a volunteer who would purchase and gather the raffle prizes for the club meetings. If you are interested in this position, please let Michael know.

## Upcoming Meeting: Thursday, Oct. 5, 2006, 7 PM

The next meeting will be held at Hayes Elementary School, 5035 Poston Drive, San Jose

**Meeting Program:** Raffle prizes will include the usual a radio, a kit, adhesives and lots of other stuff. Bring your latest project for show and tell and receive a free raffle ticket. Coffee and donuts during the break.

Future Meeting Dates: Weds Nov 29th Tues Jan 23rd Thurs Mar 22nd Thurs May 24th





# From The Secretary's Building Board

By Rich Luvara

July 22 2006 SCCMAS meeting notes Attendance: 40, Temperature: 101 deg+!

New members present: James Gale, Michael Radu – (donated paint and time for impound), Dave Salac, Ryan Luders (new solo), Norm Sly (new solo)

## **Dumb Thumb**

Eric Spitzer – Wing failure. Uncured epoxy from aircraft being built the night before. Was second airplane lost in 9 days

Don Coulter – Allowed Eric to fuel his airplane for demonstration at the air show, and aircraft was basically de-fueled! Don wins the trophy!



## Show and Tell

None this month.

## Raffle

#### Thanks to Sheldon's

Murl Culp – Engine and Club hat

Bervin Britt – Radio (passed on second and third tickets pulled)

Norm Sly Airplane kit Pat Rose – Glow driver Ken Kightly – Glow driver





## Treasurer's Report

By Jim Patrick

SCCMAS Profit & Loss Report Jul 5 - Sep 5, 06 Ordinary Income/Expense Income

Jul 5 - Sep 5, 06	
Ordinary Income/Expense	
Income	
Apparel sales	13.00
Food Sales	4,189.00
Membership dues	565.00
Air Show Raffle	1,633.00
Swap Meets	330.00
Vending machine	220.00
Total Income	6,950.00
Expense	
Bay Alarm	135.00
Contributions	650.00
Equipment Rental	997.50
Food	2,382.63
Garbage service	506.82
Office Supplies	30.00
Postage and Delivery	764.34
Printing and Reproduction	358.31
Raffle supplies	1,211.38
Repairs and Maintenance	
Equipment Repairs	241.96
Janitorial Exp	50.00
Rprs and Maint-Other	90.68
Total Repairs and Maintenar	nce 382.64
Sanitation service	1,518.13
Supplies	511.48
	311.40
Telephone	005 00
Internet	225.22
Telephone - Other	182.09
Total Telephone	407.31
Utilities	
Gas and Electric	735.75
Water	365.50
Total Utilities	1,101.25
	1,101.23
Total Expense	10,956.79
Net Ordinary Income	-4,006.79
Net Income	-4,006.79



## **Safety**

#### By Tim Jones

Not much of a report this edition. I do want to say that there will be a board meeting soon. I will be bringing a few things up for discussion and consideration. I would like to invite all to submit any ideas, suggestions, concerns or requests to any of the board members soon. E-mail is the best format as we can easily forward these to be added to the agenda.

In the mean time, watch for opportunities to help the newer fliers. And remember to watch for loose clothing troubles as the weather cools off.

Finally, for those who are interested, in the last issue I reported an incident involving a serious injury with a hand in a small prop. I am pleased to report that the member involved is back out enjoying the hobby again. He still has some physical therapy sessions in the works, but he has all of his fingers and they all seem to work. It's good to see him out again after nearly two months. Personally I hope none of us have to deal with an event like that again. And I would like to ask all to help in making every effort to help keep our sport fun and injury free.

Until next time, Christmas is coming and a "Chicken Stick" is a great gift idea!

Tim





## Contest News

By Steve Smith

It's Fall - this means colder mornings, earlier sunsets and possible rain. But this won't put a damper on remaining events for 2006. On September 16th, Electric Fun Fly was in full swing. What a turnout! With the great weather, there were 23 registered

pilots, on-site vendors showing their goods and spectators galore. Over 100 people were in the park by noon. Thanks to Bahman Dara for making this event a success.

The next event in the lineup is the annual pattern contest on September 23rd. This is a very popular event with usually 20 plus pilots showing their precision pattern flying skills in the novice to expert classes. Come out and enjoy a day of precision aerobatics. The same day the SCCMAS will be at the Reid Hillview Airshow and the "It'll Do" racing team will be in Madera for the 5th T-34 race. Saturday October 7th the final T-34 race of the Triangle Series will be held at the SCCMAS. This will be an action packed day of racing and fun. I'm still in need of helpers to

count laps, flip burgers. If you are interested in helping, contact Steve Smith (408) 234-0095. Saturday October 14th, the annual Coyote Creek Classic bike ride will be at the Tomcats field. This will be a stop, with vendors and an aid station for the bikers. Lunch will be served to all biking participants and the SCCMAS will put on a limited Airshow to all of the scouts. Mark your calendars for the final Flea Market of the year, Saturday December 2nd followed by the Toy-For-Tots – Bob Whitacre memorial Fun Fly on Sunday December 10th from 9AM to 1PM.

See you at all of the upcoming events, Steve Smith



## Training

By Mike French

See Mike's Flight Training Upgrade Proposal on pages 8 and 9.





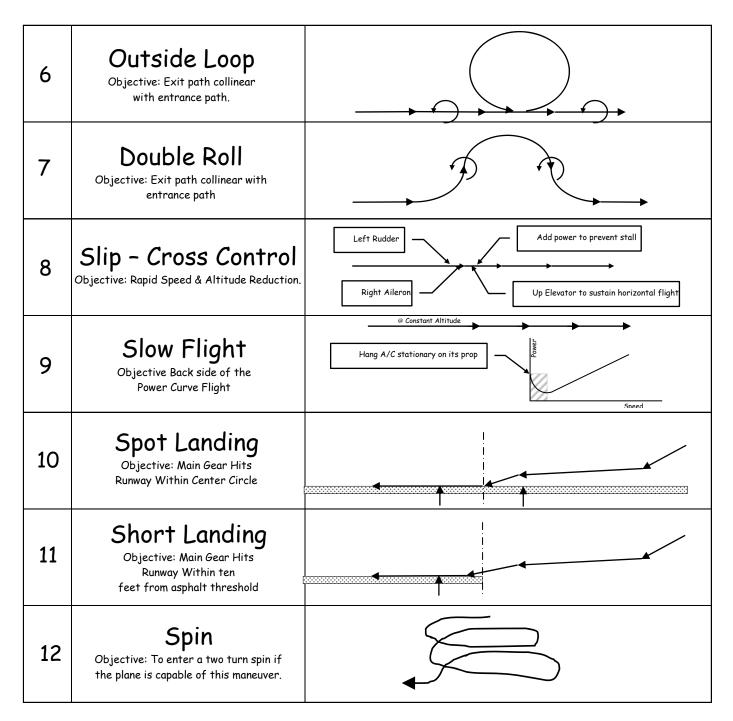
Electric Fun Fly Photos by Jim Patrick.

## A SCCMAS Flight Training Upgrade Proposal

The SCCMAS Flight Training has been historically dedicated to teaching students enough flying techniques to insure that they are not a hazard to themselves and others. Students should be trained enough to know the field rules, the AMA regulations and flight line protocols so that they can safely interact with others flying on our field. The solo pilot certification flight check is really a demonstration the student has adequate control over his plane that he will not place anyone in jeopardy.

But after the Solo Certification Flight Check is passed, what if the student now wants to learn many of the aerobatic maneuvers that are seen each day at the field. Nothing has been said about how SCCMAS members learn the art of flying like aerobatics, flying upside down and so on. Personally I have usually included one training flight to teaching basic aerobatics. But hasn't the time come to have the club adopt this training program as an adjunct to it's flight training. The proposal is then to have each instructor upon request be able to provide the student with training of a standard set of basic aerobatic flight maneuvers and have this package be advertised as a capability of the SCCMAS Flight Training Program. Since our instructors are all experienced pilots personally, the teaching of these scheduled maneuvers should not represent any thing new to any of them. But what is new is publishing the list of what will be referred to as "Standard Basic Maneuvers". We as a club should agree amongst ourselves as to what our club expects the set of basic aerobatic maneuvers should be. Below is a list that I personally have assembled and would like to submit as a starting point for our discussion. No doubt each one of you would have a favorite set of tricky twists you enjoy seeing you plane perform. My feeling is that extending precise flight control is as important as seeing a plane tumble out of the sky. Landing short or spot landings offer to my way of thinking as much challenge as any other elemental flight behavior and should be included in the set of twelve basic aerobatic maneuvers. Here is my unprioritized list. Please review it, then send me an email to: french913@aol.com and let me know what your feelings are as to which twelve flight behaviors should be given by all our flight instructors upon request to teach aerobatics.

1	½ Cuban Eight Objective: Maneuver is in same vertical plane	
2	Hammerhead Stall Objective: Vertical ascent collinear with vertical descent	Rudder "KicK"
3	Immelman Maneuver Objective: Maneuver is in same vertical plane	
4	Inverted Flight Objective: Flying the entire pattern in the inverted state	<b>→</b>
5	Loop Objective: Exit path collinear with entrance path.	



This list is only the first suggestion and certainly needs to be discussed and refined. Let me have your thoughts.

Mike French french913@aol.com

## Electric Fly In, 13 Sept. 2006 Photos by Bahman Dara









Servo Chatter | Sept 2006

Page 10



## **SAFETY and SATISFACTION**

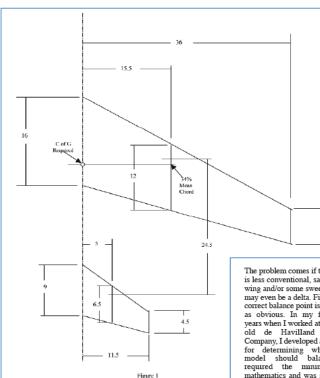
## Balanced approach to Centre of Gravity

#### By Chris Bashford

HIS is an area often blandly covered with our models when preparing for that first flight. It relates to the CG or balance point. Where an aeroplane balances decides whether it is going to work or not, — or more precisely, if it is going to fly safely or not. The subject is covered from time to time but many contributors put more effort into expounding what they think they know than putting over easy 'easy to digest' facts. I will try not to fall into this trans.

into this trap.

The subject takes me back to the very early days in the late 50s when I started out with R/C. I had a model that refused to do the right thing. It was an own design but to me, as it 'looked' right I naturally felt it should work. The problem was found to a wrong CG position As so often happens today, many training and sport models actually have very similar lines and proportions. You know, and proportions. You know, rectangular wing and tailplane, fuselage length about three quarters of the span, etc. etc. The otherwise, prettiness invariably comes from details such as the trim, colouring or even the way the pilot sits in the cockpit. The old rule of thumb where others in the club pick the model up by the wing tips and find it balances about 30% generally won't be far wrong



6.80 SCALE FOR CHORD POSITION FROM CENTRE LINE OF MODEL 0.50 EXAMPLE for WING SINGLE WING LENGTH i.e. semi-span WING TAPER RATIO 20 0.15 0.1 MEAN CHORD NOMOGRAPH (C) 0.05

The problem comes if the model is less conventional, say tapered wing and/or some sweepback. It may even be a delta. Finding the correct balance point is not quite as obvious. In my formative vears when I worked at the good Company, I developed a formula for determining where the model should balance. It required the minimum of mathematics and was simple to use. It does require that you have an accurate plan view of the model and a pencil and paper. A simple calculator is also useful. My approach has proved accurate enough for many other authors to have taken it on board. Rather than use my original formulae, I have resorted to nomographs. For those who are not familiar with the nomograph, it is best to say that they are a pictorial interpretation of an otherwise complex relationship. They are very much easier to work with than algebra. To explain, let's work through a practical example. I have drawn an imaginary model plan, which

not only has tapered wings and

tail but also some sweepback so the technique can be used in full.

In Figure 1 we see the plan view where I have included the measurements required are the Wing area, the Tail area, the Tail moment length and the Mean chord. As I have chosen tapered wings the mean chord actually has to be evaluated. Mean Chord is an aerodynamic term that can be considered as the wing chord (or T/P chord) size the aeroplane thinks' it has. This is generally not the geometric average chord size but rather somewhere slightly further inboard if the wings are tapered. The use of nomograph in Fig 2 is the first thing to use and is necessary to locate and mark up this position, (on the plan).

We need the 'Wing Taper Ratio' which is simply tip chord divided by the root chord. In my example it is 6.5 inches divided by 16 inches, say 0.4. The half span is 36 inches, again as measured on the plan. On the mean chord nomograph join the 36" point to the 0.4 taper ratio point and this puts the true mean chord at 15.5 inches out from the centre-line of the model. Mark this on the plan for reference. The same exercise can then be done with the tailplane. Mark this on the plan also. Take a measurement of the actual length of the mean chord (12 inches in our example) and jot the dimension down somewhere. Also mark on the plan the 25% or quarter chord points of both Wing and Tail mean chords. You will need these shortly.

Back to the plan, measure the distance between the 25% position between the mean chords of wing and tailplane. Do this parallel to the centre line of the model. In my example it measures 24.5 inches. This is the Tailplane Moment. The dimension is noted for use in the next stage.

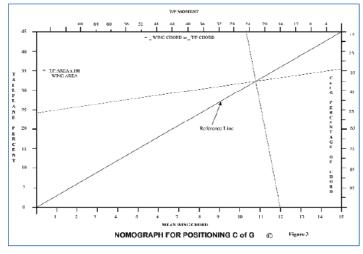
next stage.

The next thing we have to do is to find the Tailplane percentage. Simply divide the Tail Area by the Wing Area. I should not need to describe how to evaluate areas but with the

complex shape in the example it is perhaps easiest to just add the Root Chord length to the Tip Chord length and multiply it by half the span. I.E. (16in + 6.5in) multiplied by 36in. This equals 22.5 x 36, or 810 sq. Inches. Similarly the Tail Area works out to 155.25 sq. in. The percent area is 155.25 divided by 810. (19.2%). Note this also. We have now acquired three values, T/P moment, (24.50); Mean Chord. (12 inches); and T/P percentage at 19.2. For the last part we need to use the promoscraph in fig. 3

nomograph in fig 3.

This is perhaps the easiest part of all. Simply draw a line from the relevant points on the top and bottom scales. See where it crosses the diagonal reference line. Then project the line from the T/P percentage point through the crossing place to meet the right-hand CG scale Our example shows the CG required is at 34% of Mean Chord. Mark this on the plan and project it across to the centre line of the fuselage. Make your model balance at this point and you won't be far wrong. Before the doubters air their views try in on a working model. You will find that it gives a close enough position for safety. Final fine tinkering of the position can always be done following test flights if you feel it necessary Over the years, the nomograph has been tested on some 500 different designs from Free Flight Contest to Control Line and from R/C pattern ships to R/C trainers. It even works with deltas. Remember though, with a Delta there is no Tailplane Moment and the projected line simply runs along the Nomograph's reference diagonal making the CG required at 15% Mean Chord. On a Delta you will find the Mean Chord is often quite well in towards the model's centre line. Fig. 2 will still give its position in the same way that it did for a more conventional model layout. Remember also keep unit dimensions common, i.e. inches and sq. inches or centimetres and sq. cms. Don't mix metric with imperial!





## The Northrop Gamma 2B

The Gamma family consisted of a number of variants. The Gamma family was an outgrowth of the Alpha, initially serving as a rugged civilian transport. The Gamma eventually found it's way into military service with the US, Spain, China as war approached.

Model 2B, Qty 1: Delivered to Lincoln Ellsworth who named it 'the polar star.' Ellsworth took the airplane to Antartica aboard a ship in 1934 with the famous aviator Bernt Balchen as his pilot. Ellsworth had planned a round trip flight between the bay of whales and the weddell sea. However, while still preparing for the flight the ice beneath the polar star broke apart and it was nearly lost. After considerable effort the plane was recovered and loaded back aboard a ship and then subsequently returned to America for repairs. Ellsworth and the Polar Star returned to Antartica in September, however before a flight could be made the plane broke a connecting rod and had to be shipped off once again for repairs. Finally, after returning once again to Antartica and finding an adequate runway the plane flew over Antartica on January 3, 1935. The following November Ellsworth and canadian pilot Herbert Hollick-Kenyon succeeded in flying the Polar Star across Antartica, becoming the first men to visit western Antartica. The Polar Star made a number of landings on it's journey across Antartica before it was forced down by fuel starvation just 25 miles short of it's transantartic goal. Over 2400 miles had been flown before the aircraft was forced down. The crew abandoned the aircraft and walked the remaining 25 miles to their destination, taking 6 days to arrive. The aircraft was later recovered and donated to the Smithsonian where it is currently on display.

Source: http://www.airminded.net/alpha/gamma.htm

## T-34 TRIANGLE SERIES CHAMPIONSHIPS Race Dates: April 1, 2006 FRM Club resno, CA May 6, 2006 Madera,CA MARCS Club June 10, 2006 SCCMAS Club Morgan Hill, CA July 29, 2006 Fresno, CA September 23, 2006 MARCS Club Madera,CA October 7, 2006 Morgan Hill, CA SCCMAS Club SPONSORED BY: World Models Mfg. Airborne Models LLC Power Master Fuels APC-Landing Products Great Planes Distributing Norred Aero Products Bob Smith Industries Johnson Racing Sheldon's Hobbies T34RACING.COM

For information regarding the T-34 Triangle Series, Please contact Kevin Norred @ (408) 482-5437 or email at T34racing@yahoo.com Please visit T34RACING.COM for up to date info.



Sacramento Valley Rotory Wings

## OCTOBERFLY '06

R/C HELICOPTER FUN FLY

## OCT 6th, 7th & 8th

## SVRW/MASM FLYING SITED at MATHER REGIONAL PARK

(near Kiefer & Eagles Nest Rd., Sacramento, CA)

featured pilots

JASON KRAUSESYNERGY N9 ALAN SZABOAVANT AURORA
DANNY SZABOAVANT AURORA ERICH STOLZALIGN T-REX

FLIGHT DEMONSTRATIONS begin at 11:30am SATURDAY (and continue throughout the event)

#### ENTER TO WIN A SYNERGY N9

courtesy of SYNERGY R/C & the SVRW

FUN FLY EVENTS - RAFFLE - OVERNIGHT CAMPING - NIGHT FLYING

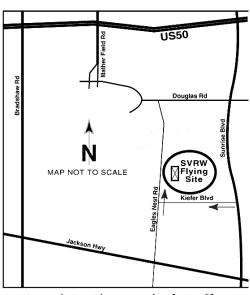
## WWW.SVRW.COM

For information about the SVRW OctoberFly '06, contact:

Andy Boulger - Event CD racingstripe@att.net 916.362.7063

Chuck Zidek - President czidek@surewest.net

Coordinates to the field: 38 31' 53.88° -121 15' 37.96°



AMA sanctioned fun fly event, current 2006 AMA & event registration required to fly.



# SCCMAS Proudly Presents... 4th Annual... Whitacre-Toys for Tots Memorial

## Sunday December 10th 9am - 1pm

This has been a great finale for the year. Please come help us honor Bob Whitacre's wonderful life, and help the children in our community.

#### Entry Fee is any new unwrapped Toy.

Event open to all guests and members. Bring a toy and enjoy a winter day with some friends. Any AMA pilot is welcome to fly that brings a donation.

SCCMAS - Morgan Hill, Ca.

For more info visit www.sccmas.org or call Steve Smith @ (408) 234-0095

## R/C Flea Market

Presented by the Santa Clara County Model Aircraft Skypark
Morgan Hill, Ca.
A Facility of the Santa Clara County Parks & Recreation Dept.

## Saturday - December 2nd

8:00am - 1:00pm

Come join us at the SCCMAS field. Buy or sell your R/C related items.

No Pre-registration needed. Table space is limited, and available on a first come, first serve basis, bring your own table to be safe.

SCCMAS field is open for flying, all transmitters must be impounded or battery/module removed to prevent accidents.

Find that perfect Christmas gift or project for the winter

Space Rental \$10.00

For more info, contact Steve Smith at (408) 234-0095

Maps and additional club info available at our website http://www.sccmas.org

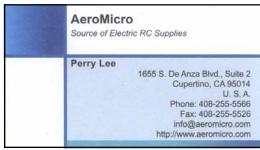
#### Governing Board Members of the S.C.C.M.A.S "Tomcats"

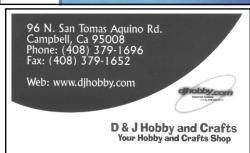
General Manager	Brian Nelson	408-463-0604	nelson711@aol.com
Vice President	Michael Luvara	408-292-1212	mike@sccmas.org
Newsletter Editor	Pat Rose	408-910-9421	servochatter@sccmas.org
Treasurer	Jim Patrick	408-356-0817	treasurer@sccmas.org
Contest Coordinator	Steve Smith	408-234-0095	contests@sccmas.org
Secretary	Richard Luvara	408-246-3857	secretary@sccmas.org
Safety	Tim Jones	408-281-2915	safety@sccmas.org
Flight Instruction	Mike French	408-373-5301	training@sccmas.org
Webmaster	Dean Sala	408-244-2153	webmaster@sccmas.org
Field Weather (automated)		408-776-0101	
On Site Field Telephone		408-776-6844	
SCCMAS Business Office		408-292-1212	
SCCMAS WWW address		www.sccmas.org	

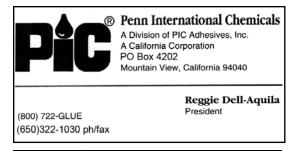
**AMA Intro Pilots** (These pilots can fly non-AMA members, certain restrictions apply.) Reggie Del Aquila, Mike French, Jack Sunzeri

#### Please help support these companies and organizations as they help to support us:

















Bud Kanemoto flies his P-61Black Widow extremely well. Pat Rose photo.

Servo Chatter is published bi-monthly by the SCCMAS "Tomcats" radio control club located in Morgan Hill, CA. Views expressed in Servo Chatter are those of the writers. They do not necessarily represent the views of the club, its members, or officers. Mention of any product, material, or service shall not, nor it is intended to, imply approval, disapproval, or fitness for any particular use. The SCCMAS is a non-profit organization. Permission is granted to reproduce anything printed in Servo Chatter as long as the source and author are credited.



Servo Chatter c/o SCCMAS 16345 W. La Chiquita Ave. Los Gatos, CA 95032-4610

Next meeting on Thurs Oct 5th, 7PM, at Hayes Elementary School.