

# Servo Chatter

AMA Club Charter #110

May 2012



Next Meeting: Saturday, June 2nd at  
SCCMAS field @ 5:00pm

BBQ provided by SCCMAS. Feel free to bring your favorite dish to  
share and enjoy a great evening at the field

[www.sccmas.org](http://www.sccmas.org)

Official Newsletter of the SCCMAS "Tomcats"  
Field Location: 10250 Monterey Road, Morgan Hill, CA 95037



## News from the President



This month, I'd like to address safety and our personal responsibility at the field. Whether we are operating our airplane or helping another, we all have a part in fostering safe operations of our models. I'm sure many of you have heard that we had an incident at the field recently which involved one member's airplane striking another member and causing a serious injury.

I'm not going to go into the specifics, but would like to remind each one of us that we have a part in ensuring safe operations at the SCCMAS field. The member who was injured is recovering, but will require physical therapy and time to rehabilitate himself. We all wish him a speedy recovery.

I'd like to quote something from our membership brochure, which I believe stresses this subject very well.

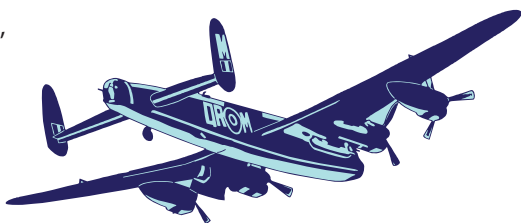
***"It is of the utmost importance that we observe the safety rules of our particular sport. Every one of us is hurt when carelessness causes an accident, and it most certainly hinders or endangers model aviation's progress. The safety rules are designed to provide guidelines that, along with common sense and good judgement, will ensure safe operations at the Skypark. It is to your personal benefit to make certain that no action on your part will result in an accident."***

With all that said, I would also encourage all of you to take some time to read and understand the field guidelines and rules. We have included them in this issue of the newsletter for your convenience. Specifically, please take note of number 4 - "You are responsible for your aircraft at all times". This means that you should ensure you are operating your aircraft in a safe manner and are using the proper means to restrain the aircraft. We prefer that you utilize another person to restrain your aircraft over any other means of mechanical restraint.

Moving on, we have begun preparations for our annual airshow to be held on July 7th and 8th. As usual, we ask for your help in putting this laborious event on. It takes significant effort from many dedicated volunteers to make this event a success. If you have some area you would like to help with, please let myself or Steve Smith know. We'll be publishing some documents for volunteer opportunities in the coming weeks. We're always looking for static displays of your aircraft and flight demonstrations. One should be comfortable flying in front of a large crowd.

Until Next Issue,

Michael



## From the Editor



For those of you who did not make the last meeting, please note that we are getting close to the time for our annual Airshow. Flying season is in full swing and the field is getting quite busy even on weekdays. Walter has done a great job clearing various areas and making the field a lot more tidy. This is the time that the club requires many volunteers to help put on the best possible event for the club. Volunteering for any task even for a couple of hours during either of the two show days helps the club promote our activities to a large local audience.

Much of this issue of the newsletter is dedicated to discussing safety as well as a reminder of our standard procedures for everyone. Given the events of a few weeks ago, this is not surprising. Please remember that you are totally responsible for the safe operation of your aircraft or helicopter and that the field is a shared facility where consideration is due to all whether on the flight line or anywhere on the field. For example, something that I have noticed is the difference in how pilots announce their actions whether is taxiing out, taking off or landing.

There is a distinct group of pilots who are following the rules absolutely. You can hear them no matter where on the flight-line so you know what is going on. Others, make the call but at best they can be heard by the pilots on either side of their station and someone several stations away simply can't hear them at all. Observing the rules in the air seems to have the same set of adherents. Going with the flow and direction of the air traffic is a must. Flying against the traffic pattern causes unnecessary hazards that must be avoided. I was listening to Tim Jones instructing a newcomer on the operations at the flight line and it was absolutely clear that the new pilot, if he follows Tim's instructions, would be in the safe category. Yes we have a filed Safety Officer but at the end of the day each one of us is responsible for the safe operation of the field.

Happy landings,

Bahman



**On the Cover**

Tam's T-45 powered by a Jetcat P20  
Jim Patrick Photo

## Governing Board Members and other Volunteers of the S.C.C.M.A.S.

|                                  |                    |                |                          |
|----------------------------------|--------------------|----------------|--------------------------|
| President*                       | Michael Luvara     | 408-292-1212   | mike@sccmas.org          |
| Secretary*                       | Dean Sala          | 408-244-2153   | secretary@sccmas.org     |
| Treasurer*                       | Jim Patrick        | 408-356-0817   | treasurer@sccmas.org     |
| At Large*                        | Don Coulter        | 408-690-3830   | skydanz@comcast.net      |
| At Large*                        | Steve Smith        |                | contests@sccmas.org      |
| Newsletter Editor                | Bahman Dara        |                | servochatter@sccmas.org  |
| Newsletter Proof Reader          | Jerry Bruce        |                |                          |
| Contest Coordinator              | Steve Smith        |                | contests@sccmas.org      |
| Field Safety Chairman            | Tim Stahlke        | 408-723-4878   | safety@sccmas.org        |
| Flight Instruction, fixed wing** | Peter Vogel***     | 408-782-4477   | training@sccmas.org      |
| Flight Instruction, heli         | Dave Neves         | 510-673-4467   | rcheliguy7@gmail.com     |
| Webmaster                        |                    |                | webmaster@sccmas.org     |
| Raffle Coordinator               | Paul Hasselbach    |                | pwhassel@gmail.com       |
| Field Maintenance                | Walter Colby       | 408-710-4035   | walterdotcolby@yahoo.com |
| AMA Intro Pilot**                | Reggie Dell Aquila |                |                          |
| AMA Intro Pilot**                | Mike Leggett       |                |                          |
| AMA Intro Pilot**                | Peter Vogel        |                |                          |
| Field Weather (automated)        |                    | 408-776-0101   |                          |
| SCCMAS Business Office           |                    | 408-292-1212   |                          |
| SCCMAS WWW address               |                    | www.sccmas.org |                          |

\* Governing board members.

\*\* AMA Intro Pilots. These pilots can fly non AMA members once, certain restrictions apply.

\*\*\* Email is preferred to voice mail.



Next Meeting: Saturday, June 2nd at  
SCCMAS field @ 5:00pm

BBQ provided by SCCMAS. Feel free to bring your favorite dish to  
share and enjoy a great evening at the field

## Local Services



*RG* Solutions

Rick Clayton  
Proprietor

408.316.0292

rickdclayton@gmail.com



Custom Building, ARF Repair & Assembly, Custom Painting

These local services are shown for our members' benefit. The advertising does not mean that  
any of these services or vendors are endorsed by SCCMAS

TRIANGLE SERIES 2012

# T-34 & UNLIMITED WARBLER R/C PYLON RACES

JUNE 9TH, 2012

@ Morgan Hill, CA

Home of the Santa Clara County Model Aircraft Skypark "Tomcats"

## **World Models T-34 Mentor Class**

O.S. 46 AX & Thundertiger .46  
Stock engines only

Details:

Bronze (Novice ), Silver and Gold Classes  
Championship Points Challenge  
Trophies – 1<sup>st</sup> thru 3rd



## **Unlimited Warbler Class**

Wing Area vs Engine Displacement

Details:

No Break-Out times

One Class

Championship Points Challenge

Trophies 1<sup>st</sup> thru 3rd

## **Sponsored By :**

World Models Mfg / Airborne Models, Bob Smith Industries, Horizon Hobby, O.S. Engines , Hobbico, YS Parts & Performance , Norred Aero Products, RC Accents, RCAT Systems, APC Props, [www.Onsightsigns.com](http://www.Onsightsigns.com)

### **Race Notes:**

- Pre-Registration Available
- Frequency / Race Number registration required
- Limited to first 65 registered pilots
- Public raffle

Event Contest Director : Steve Smith

### **Race Day Schedule:**

- Pre-Registration open 30 days prior to event
- Race Day Registration / Pilot Check-in open until 8am
- Pilots meeting at 8:30am
- Heat Races start 9am SHARP!

Email : [Stevejsmith2001@hotmail.com](mailto:Stevejsmith2001@hotmail.com)

For more information, please contact Kevin Norred @ 408-482-5437 OR Email [Triangleseries@rcpylonracing.com](mailto:Triangleseries@rcpylonracing.com)  
VISIT [www.rcpylonracing.com](http://www.rcpylonracing.com)



# Field Safety Chairman



## SAFETY Inherent in our CULTURE

Well I wish this was a typical, casual fun safety column, but as many of you know, there was an accident at the field on Sunday, April 15, which resulted in a serious injury to one of our members. Due to this event, I wanted to use this safety column as a reminder of a few key safety rules that every member, guest, flyer must follow. That is the best way we can learn from this unfortunate accident. I would like to:

- Outline the incident- discuss what went wrong, what safety rules were violated, corrective actions
- Reminder and review (for all members) of the applicable safety rules
- Solicit all members to be safety observant while at the field. Follow all safety issues, and help those who you notice might need a reminder

## THE INCIDENT

One of our members had an accident when hand starting his Giant Scale airplane without help. Somehow, after it started, it went to full throttle and moved uncontrolled into the pit area striking some parked airplanes, chairs, and two other pilots before the engine quit. Due to the size of the aircraft, engine and prop (Force= Mass x Acceleration) this accident could have been much worse- even resulting in loss of life! Like any accident, there were a number of factors that contributed to the outcome. Some we may never know (ie. why the throttle went to full power), but our focus and learning can come from a review of some very obvious safety violations, rules we must all be using that were not followed.

When starting your aircraft- no matter what size, power plant, fuel, etc. Have a helper hold or straddle the tail to secure the aircraft before you start it. If you're in the start-up area (which is desired), use one of the ropes secured to the fence to tether the aircraft around the tail, and a helper to hold the tail. We are aware that many larger aircraft start out on the grass at the edge of the taxiways. This is ok, but you **MUST HAVE A SECOND PERSON TO HOLD YOUR AIRPLANE**, and it should be pointed with the prop away from the Pit area.

## REMINDER SCCMAS SAFETY RULES

As you know, we are one of the largest AMA charter organizations in Northern California, and our field layout has multiple safety factors built into its design. Even with our heavy facility usage, we have established an excellent safety record, because of the field, but more importantly, due to all of you, our members having safety in mind, following club safety rules, and keeping safety in our culture every time we are flying or just watching at the field. As you will recall, these rules are contained in and agreed to by all members when you sign the membership form each year. Without question, every pilot has agreed to and must follow these rules. Please review these rules in your membership form, and if you have any questions or suggestions, please ask me or one of the board members.

## SAFETY FIRST- SCCMAS Safety Program

Our Safety First program centers around YOU following these rules, but also relies on your general awareness of safety being followed by other pilots, while using our field. We all enjoy the sound of our engine running. Let's all be aware when anyone's engine is running, not just ours. If you notice one of your fellow pilots (stranger or even a good friend) breaking a rule, go give them a pleasant reminder. The Safety First program awards (Two at each club meeting) are given out for just this behavior. This doesn't need to be confrontational, and in the end, most everyone will appreciate your efforts when pointing out an aspect of safe operation of their airplane. If you do this and the behavior doesn't change, seek me or a board member and let them know. Whenever you use our field, you are participating in the safety program. With this mindset, we all help to ensure SCCMAS's excellent record for the safe enjoyment of the RC hobby.

Let's all continue to have fun out there, and enjoy our celebration of flight...SAFELY

Thanks-

Tim



## Welcome City Diner

We would like to welcome City Diner as a new Club Raffle Sponsor. They will be providing \$20 dining gift certificate for any of our events which includes a raffle.

Let me take this opportunity to introduce you to the City Diner. They are located at 2951 Monterey Road in San Jose. It is a 50's themed restaurant with a cool menu that includes 66 (Think Route 66) flavors of milkshakes. As the latest SCCMAS Raffle sponsor. They will be providing a dining gift certificate to be raffled at all events where our club conducts a raffle. This will include the club meetings, Heli Jamboree, our annual air show, and other events. Please show your appreciation by patronizing the restaurant for breakfast, lunch, or dinner. By the way, every other Friday night there is live music. If you have any questions regarding this please feel free to contact me at 408-234-3961. I will be happy to respond. Also, in the near future, I will be randomly giving away "free milkshake" certificate when I am at the airfield.

Thank you, and Happy flying!

John Adams

Club member with questionable standing  
408-234-3961



# Treasurer's Report



Jim Patrick

## SCCMAS Profit & Loss January through February, 2012

|                                |        |                |
|--------------------------------|--------|----------------|
| <b>Ordinary Income/Expense</b> |        |                |
| <b>Income</b>                  |        |                |
| Membership dues                |        | 1660.00        |
| Contest Entries                |        | 60.00          |
| <b>Total Income</b>            |        | <b>1720.00</b> |
| <b>Expense</b>                 |        |                |
| Dues and Subscriptions         |        | -3.00          |
| Equipment Rental               |        | 75.00          |
| Food                           |        | 151.24         |
| Garbage service                |        | 192.25         |
| Landscaping                    |        | 200.00         |
| Postage and Delivery           |        | 36.00          |
| Printing and reproduction      |        | 9.94           |
| <b>Professional Fees</b>       |        |                |
| Legal Fees                     | 525.00 |                |
| <b>Total Professional Fees</b> |        | <b>525.00</b>  |
| Sanitation Service             |        | 560.00         |
| Supplies                       |        | 199.84         |
| Telephone                      |        | 80.14          |
| <b>Utilities</b>               |        |                |
| Gas and Electric               | 51.11  |                |
| <b>Total Utilities</b>         |        | <b>51.11</b>   |
| <b>Total Expense</b>           |        | <b>2077.55</b> |
| <b>Net Ordinary Income</b>     |        | <b>-357.55</b> |

## SCCMAS 2012 Event Calendar

|               |                                      |
|---------------|--------------------------------------|
| May 18-20     | Helicopter Jamboree                  |
| June 9        | T-34 & Unlimited Warbird Race        |
| June 16       | SCCMAS Field Maintenance Day         |
| June 23       | Warbird Fly-In                       |
| June 30       | SCCMAS at Reid Hillview Airport      |
| July 7-8      | Annual Airshow                       |
| August 4      | Summer R/C Swap Meet                 |
| August 25     | Pattern Contest                      |
| September 22  | Fun Fly                              |
| October 13-14 | T-34 & Unlimited Warbird Race Finals |
| November 3    | Fall R/C Swap Meet                   |
| December 2    | Toy-For-Tots                         |



# Contest News



Looking back, the spring Swap Meet on April 14<sup>th</sup> was another busy day of wheel'n and deal'n at the field. Despite the cool overcast morning, many bargain hunters and sellers were haggling well before sunrise. By 10 a.m. the pit area was busy. A lot of unbelievable deals existed, as sellers were reluctant to take their goods back home. If you missed this one, mark your calendar for the summer Swap Meet on Saturday August 4<sup>th</sup>.

Due to the timing of this newsletter, I will include the highlights from the May events, the Wing of History Museum Airport day, and the annual Heli Jamboree in the next newsletter.

Moving on... Racers get those T-34's and Warbirds out of the rafters, and join us on Saturday June 9<sup>th</sup> at the second T-34 & Unlimited Warbird sport pylon race of the season. Three classes of T-34 racing, Bronze (Novice), Silver, and Gold. Magnum .46 and OS AX .46 box stock engines allowed. Trophies will be awarded for 1st thru 3<sup>rd</sup> place.

Unlimited Warbird, one class, No break-out times, wing area vs. engine displacement limitations, trophies awarded for 1<sup>st</sup> thru 3<sup>rd</sup> place. Registration opens at 8:00 a.m. with a pilots meeting at 9:00a.m. Racing will start around 9:30a.m. On-site coffee and donuts in the morning followed by a BBQ. Race frequency and race number registration required. Contact Kevin Norred @ 408-482-5437 or Email [Triangle-series@rcpylonracing.com](mailto:Triangle-series@rcpylonracing.com) or visit [www.rcpylonracing.com](http://www.rcpylonracing.com). Rules and additional information is available at [www.sccmas.org](http://www.sccmas.org).

**Saturday June 16<sup>th</sup> is Field Maintenance Day. The field will be closed to flying from 8:00 a.m. to 1 p.m.** Come out and help brighten up the facility for the annual Airshow. Bring your handyman skills, painting talents, weed trimmers, shovels, rakes, wheel barrels, lawn edger's and we'll find a job for you. FREE BBQ at 1 p.m. for all volunteers. Contact Steve Smith at [contests@sccmas.org](mailto:contests@sccmas.org).

Get ready for the annual Warbird Fly-In on Saturday June 23<sup>rd</sup>. Open to all piloting skill levels, all types of Warbird aircraft of any size, from any era with any engine type, gas, glow, electric and turbine. Join us for a day of fun and flying with fellow Warbird enthusiasts. Registration starts at 9:00 a.m., with a pilots meeting at 9:45a.m. Landing fee is \$10, and includes a free BBQ lunch for all registered pilots. Awards for several Warbird classes, best of show, WWI, WWII and Jet/Modern. AMA insurance is required. Pilots with turbine aircraft must have a current AMA turbine waiver and proper turbine safety equipment. Contact Lynsel Miller (CD) at (408) 375-6103 for additional information or visit our website at [www.sccmas.org](http://www.sccmas.org).

The Annual Airshow scheduled for Saturday July 7<sup>th</sup> and Sunday July 8<sup>th</sup> is fast approaching. Several SCCMAS, AKA the "Tomcats" (thinking of Don C.) members attended the airshow meeting in April and enjoyed a free meal at the Sonoma Chicken Coop. The group discussed many new ideas, reviewed the show schedule, and divvied out tasks to jump start the show preparation. The sign-up sheet is clean and many open-

ings exist. Helpers are needed in the shack, flipping burgers, soda tent, glider booth, information and raffle booths, how to booths, public relations/advertising, noon time training pilots and buddy box assistants, field setup/tear down, etc. If you are interested in being a part of this prestigious annual event, contact Mike Luvara or Steve Smith at [contests@sccmas.org](mailto:contests@sccmas.org).

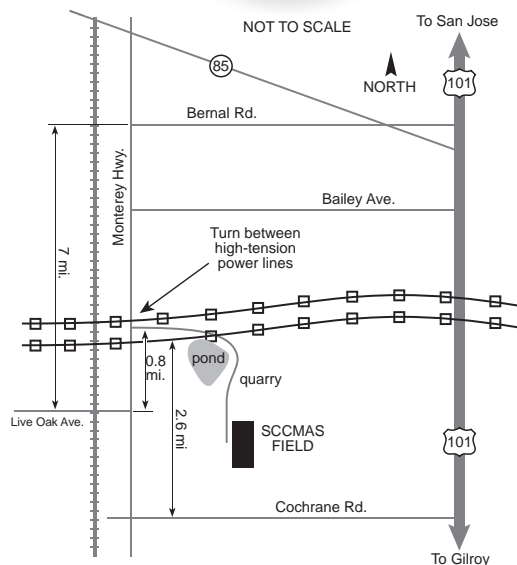
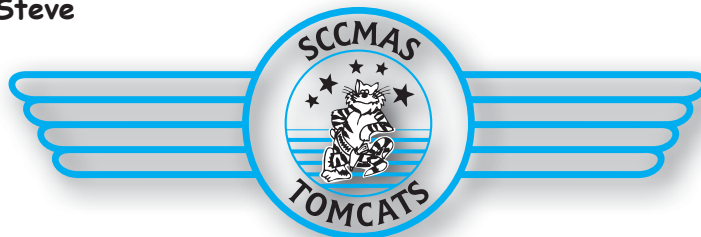
As a precursor to the annual Airshow, Rick and Merriam Maida donate their time and efforts to building a SCCMAS float filled with all types of R/C aircraft, and audio of the Reno racers for the Morgan Hill July 4<sup>th</sup> parade. Rick is always looking for additional help from the members to setup the float on-site, the morning of the parade, walk the parade path handing out Airshow flyers, and help with tear down. In past years, the SCCMAS float has placed first, second, and third among the large number of floats that participate in the parade. A special thanks to Rick and Merriam for taking on this task every year.

The SCCMAS will be participating at several public events this year. Preparations are underway to have a booth and flying demo at the Reid Hillview Airport day later in June. The SCCMAS will be promoting the R/C hobby with static aircraft displays and flying demonstrations. We are always looking for additional volunteers to manage the booth, answer questions, help with the flying demos, piloting, and spotting. If you would like to help and share your R/C experiences with the public, contact Mike Luvara or Steve Smith at [contests@sccmas.org](mailto:contests@sccmas.org)

The SCCMAS is always looking for additional helpers for the events and other functions. Shack manager positions are still available. Manage the shack for one event and the SCCMAS will pay for half of your 2013 annual dues. Manage the shack for two events and the SCCMAS will pay your full 2013 annual dues. Additional helpers are always needed in and around the shack. Positions include staging, food preparation, food orders, Barbeque talents, setup and cleanup. If you are interested in helping at any of the events contact Steve Smith at [contests@sccmas.org](mailto:contests@sccmas.org).

See you at the field.

Steve





Well! It's been another ridiculously busy couple of months, we've added several new students, congratulations go out to Dr. David Joyce who passed his solo certificate flying his E-flite Apprentice – enjoy the solo practice David and feel free to ask for help from any of us as you progress deeper into this wonderful hobby! I'm deriving a great deal of satisfaction seeing our students progress through

training and I'm amazed at the pace with which many are moving. Two of my students just recently started landing successfully on a fairly consistent basis, which I consider to be a real milestone in any student's RC career as that is the one maneuver that is mandatory. More on that in a moment after a brief word from our sponsor:

## Call for Volunteers – Airshow coming up!

Before I go too far afield, as you all likely know, our Airshow is coming up quickly July 7 and 8. It has been our very successful tradition to make the "noon demo" an opportunity for anyone to experience the thrill of flying an RC plane. We set up instructors with buddy boxes at all 6 flight stations, each participant gets 2-3 minutes on the sticks after a quick briefing from an assistant at the flight line. This entails 6 instructors with trainers, 6 assistants to get the next pilot on deck familiar with the basic controls while they wait their turn, one person to manage the line and a few people to handle refueling/recharging planes to get them ready to go up again. All-in all I need about 14 people (plus myself) from noon to 1:00 on Saturday and on Sunday (they don't need to be the same people both days). In addition, it would be a huge help to me if some folks would be willing to check the airworthiness of the 2 club glow trainers and make sure they are in tip-top shape for that weekend. My time (and, if I'm honest, my rusty building skills) just don't allow for me to manage those trainers right now. I do have two electric trainers which I can make available to folks willing to help as instructor pilots but who do not have trainers themselves. That means we have 4 trainers (2 glow, 2 electric) assuming the glow trainers are in good shape and so we just need 2 additional instructor pilots with trainers to help out each day. If you can help, please shoot me an e-mail at [training@sccmas.org](mailto:training@sccmas.org) and let me know what you are willing to do and whether you have trainer to lend to the cause, which days you are available, etc. or, even better, visit <https://www.quickbase.com/db/bg5i8xje3?a=gennewrecord> to sign up. No login is necessary and no one but me can see your information after you enter it.

I've heard that last year the noon demo was so popular that we also wrapped the day up with demo flights, if you are willing to help out then as well, just mention it in the notes section of the sign-up form.

Thanks to all who can help!

## Achievements leading to student success

I mentioned the milestone of learning to land in my intro, and it occurred to me it might be worth spending a little time on how I think of the stages a student goes through from rank amateur to solo proficient pilot. The British Model Flight Association (the English equivalent to our AMA) calls the initial solo certificate achievement the "A" certificate and there are two other

levels: B – Aerobatic pilot and C – airshow team pilot. But what does it take to go from nothing to the equivalent of a BMFA 'A' certificate which is effectively what the club requires for your member card to have wings on it so that you can fly solo at our field? Here's how I think about it, note that by the end of the first training session a student has progressed through the first 3 stages at least! I also try to keep things fun so if things are going well in stages 3-6 I'll have them do a few basic "loops" (not necessarily round, etc.) but just gunning the engine and pulling up to bring it around, dropping throttle over the top and then returning to cruise throttle).

**1 Radio and Field procedures** – The student has been briefed on the SCCMAS and AMA safety rules regarding the operation of their plane at the SCCMAS field. The student knows the basic calling of intent (coming out!, on the field!, taking off!, landing!, Deadstick!, etc.) and who gets right of way when two pilots want to land (deadsticks first, etc.). The student understands that the instructor will make every effort to save a plane if the student gets into trouble but that we cannot save it every time and crashes can (and do!) happen and the instructor and club cannot be held responsible for damage that results from a crash during training. The student has been familiarized with the field flight boundaries and that it is better to crash a plane than to risk bodily harm to fellow members or spectators. Radio impound/frequency pin procedures, etc. are understood.

**2 Radio and Aircraft inspection** – Instructor will give the aircraft a thorough pre-flight inspection (particularly if the plane was built or assembled by the student) looking for deficiencies that could cause an accident (is servo arm at 90 degrees to the control arm at neutral, are hinges secure, etc.) Student must demonstrate an understanding of how to secure the wing correctly for their aircraft. Startup (glow/gas) or Arming (electric) procedures, maintaining **positive control** of the aircraft after it has been started/armed until it is on the runway, etc. Don't start or arm except in the designated fenced starting area, etc. Instructor binds the aircraft to the primary radio (I prefer using my own radio, so I have a model memory for each student's plane) verifies control directions and throws, then connects buddy box and does the same with the buddy box. Be sure that the aircraft is under positive control (straddle the tail with your legs) when flipping to the buddy box as a reversed buddy throttle WILL cause a jump to full throttle. The radio is range-checked with buddy box connected.

**3 Flight familiarization** – A quick ground school introduction to the controls (I find a stick model works well here) how to accomplish a basic turn at cruising speed and altitude. The control box is not a PS3 controller, you need to take the bank out of the plane to level the wings after a turn, etc. The instructor and student connect the buddy box and proceed to the flight line with the armed/started aircraft. Instructor takes off and verifies that the plane is in trim and flying straight + level hands-off at cruise throttle, land and correct if anything is seriously out of trim. Student now gets first time on the sticks – I generally do one or two flips to the buddy box and make sure the plane is flying straight + level hands-off for the buddy box as well. Student is talked through their first few turns, etc. Basically let them enjoy themselves with the plane and take control as needed to ensure a safe flight.

**4 The racetrack pattern** – We start to get serious, the student is taught the basic rectangular racetrack pattern with the upwind leg being just past the far edge of the runway. The goal here is for the student to maintain intended altitude, make clean left or right turns depending on the wind and to keep the



Con't P10



# SCCMAS Field Rules

AMA Charter #110

It is of the utmost importance that we observe the safety rules of our particular sport. Everyone of us is hurt when carelessness causes an accident, and it most certainly hinders or endangers model aviation's progress. The safety rules are designed to provide guidelines that, along with common sense and good judgement, will ensure safe operations at the Skypark. It is to your personal benefit to make certain that no action on your part will result in an accident.



## The following rules apply to the SCCMAS Field:

1. All AMA published rules are in effect.
2. All Santa Clara County Park rules are in effect.
3. Members and guests are expected to conduct themselves in an appropriate manner, consistent with being in a public place—this includes refraining from the use of obscene or offensive language or gestures.
4. You are responsible for your aircraft at all times.
5. AMA coverage and current SCCMAS membership required to fly.
6. Accompanied guests with AMA coverage may fly one day before SCCMAS membership is required. Guest pilots must have filled out and signed a guest pilot form in order to fly. In addition, a SCCMAS member must sponsor and oversee the guest pilot for the day.
7. Owner's name, AMA number, and phone number are required in all aircraft.
8. All transmitters and receivers, other than Ham Bands, must be narrow-band.
9. Transmitters must be in the impound and turned off unless the frequency pin is in possession of pilot. Return frequency pin and transmitter to impound after completion of a flight.
10. No engine start-ups before 8:30 a.m or after dusk.
11. Closed-end type mufflers required (except racing aircraft).
12. No Formula One racing aircraft will be flown on weekdays or before 1 p.m. on weekends. This rule is to resolve noise complaints associated with competitive type Formula One engines.
13. No flying in the Red Zone area behind the Flight Line. (except helicopters hovering beyond the air-taxi line).
14. No landings or take-offs from taxiways or within the Red Zone (except helicopters hovering beyond the air-taxi line).
15. Landings from the right must be from a right hand approach. Landings from the left must be from a left hand approach.
16. Engine start-up in the designed start-up area (or at your flight station). Retain positive control of your aircraft until you pass the first white line on the taxiway. No start-up on the runway.
17. When other fliers are present at the flight line, no unannounced high speed passes closer than the far side of the runway.
18. Helicopters may be started in the normal start-up area. Main rotor may not be released until past the air-taxi line on the diagonal taxiways. All hover work shall take place over the grass outside of the diagonal taxiways at no higher than eye level. Once in forward flight, heli pilots shall stand at the appropriate flight stations, and fly the normal fixed-wing pattern in front of the Flight Line.
19. Do not leave your aircraft or starting equipment in the start-up area. Return your aircraft and equipment in the normal pit area between flights.
20. No alcoholic beverages allowed onsite. In addition, the AMA specifically states for its members, "I will not consume alcoholic beverages prior to nor during, participation in any model operations".
21. No hovering over the runway with fixed-wing aircraft while other pilots are present. All hovering to commence over the tall grass unless: (a) there is only one other pilot flying at a station and you have their consent, (b) there are two other pilots aside from you practicing the same hovering maneuvers. In (a) and (b), hovering must be commenced from the runway centerline out and maximum separation of flying aircraft must occur. No individuals to be underneath a hovering aircraft.
22. Fuel overflow containers are mandatory to prevent fuel from spilling onto the tarmac.

It is the responsibility of every member to observe the guidelines set forth. Should it become apparent that an individual is not meeting these guidelines or that common sense and good judgement doesn't seem to be prevailing, the individual will receive a verbal and/or written warning from a Club official. If further infractions necessitate, the Governing Board may take immediate action to protect the interests of the SCCMAS, including, but not limited to, suspension of membership privileges or termination of membership. With such actions, the AMA may be notified of the infractions and intentions of the SCCMAS. New members joining the organization who have previously received letters of reprimand or have been dismissed from this or other clubs, will be considered for acceptance by the Governing Board. Their membership will be considered probational for 180 days, if accepted.

Please use common sense and enjoy a great day of flying.

plane going STRAIGHT parallel to the runway (a fundamental building-block skill for landing later).

**5 Accuracy** – Left + right turns at constant altitude, use of the throttle to control altitude. Use of small amounts of rudder to maintain a straight path and coordinate turns and line up the approach.

**6 Orientation/Horizontal 8** – the goal here is for the student to make both left and right turns regardless of the wind and to get more time with the plane coming at them to make sure they can handle the control reversals. Student flies horizontal 8's with the crossover in front of the student.

**7 Approaches to landing** – Left + right approaches to the runway, keeping the plane lined up with the center of the runway, high at first. Practice flairs at safe altitude to become familiar with the landing stall characteristics of the plane. Finally combining the two, making lower + lower approaches until ultimately landing smoothly on the runway with a gentle flair.

**8 Takeoff** – taxi onto the runway, calling intent, turn into the wind and make a smooth takeoff run down the runway center with a gentle climb, a climbing procedure turn to cruising altitude. Practice a few prior skills then begin a regular series of touch + goes to reinforce landing and takeoff habits as quickly as possible.

**9 Recovery from unusual attitudes** -- Slow flight into stalls + spins with how to recover, making loops round by adjusting the amount of elevator and throttle throughout the maneuver, rolling the plane, very brief inverted flight with a roll or pull/push back to upright. Basically the goal here is for the student to know what to do when the plane gets into an odd orientation so that it gets back to an orientation they are familiar with. To never stop flying the plane until its on the ground.

**10 Advanced landing procedures** – deadstick (yes, they happen to electrics as well), handling cross winds, landing downwind if necessary when deadstick.

**11 Solo checkout flight** – from start to finish the student does everything, including preflight inspection/range checking, etc. as if it were the first flight of the season for the plane. Safety procedures are followed without prompting, etc. Controlled takeoff. During flight the student demonstrates throttle management as well as good clean flying including a horizontal 8, etc. All the requirements for the checkout flight are accomplished. After ward the student properly disarms/cuts throttle on the plane and follows all necessary post-flight safety procedures. Plane off, radio off, etc. Correctly answer a few random questions regarding AMA and SCCMAS safety rules. For electrics, demonstrate an understanding of how to charge their battery safely.

That's the way I think about it – if you have other thoughts, I'd love to hear them. Feel free to drop me a line: [training@sc-cmas.org](mailto:training@sc-cmas.org).

#### A personal achievement

Just couldn't resist the opportunity to share a personal achievement of my own – since I got into this hobby about 26 years

ago I've always wanted to fly precision (pattern) aerobatics competition. I flew my first competitions last year and seemed to be destined to be in 4th place every time. The last weekend of March was the first pattern contest of the season within reasonable driving distance (Victorville) and despite some very high winds I managed to take first place in the Sportsman class! I'm still giddy with the excitement of it! There is no doubt in my mind that the discipline of practicing precision aerobatic flight can make everyone a better pilot, even if you have no aspirations for competition. The learning never stops!



Well, that's all I have for this issue. To all our active students, good luck and drop me a line every once in a while to let me know how you are progressing! If you've had a setback or minor mishap in your training, get things fixed or replaced if necessary and get back on the horse!

See you at the field!  
**Peter**



**HIGHER PLANE**  
PRODUCTIONS

<http://higherplane productions.com/>

Higher Plane Productions makes the most entertaining RC videos you'll find anywhere. They specialize in filming remote control aircraft. From small local fly-ins, to the biggest RC competitions. Their RC videos and RC DVDs are endorsed by the world's top RC pilots like Mark Leseberg, Andrew Jesky, Jason Noll, Gernot Bruckmann, Seth Arnold, Ido Segev, RJ Gritter, Bill Hempel, Chris Brislin and many more.





PILOT NO. \_\_\_\_\_

# REGISTRATION FORM

## 2012 SCCMAS HELICOPTER JAMBOREE

May 18<sup>th</sup> thru May 20<sup>th</sup>

Please print legibly

|                 |  |            |  |
|-----------------|--|------------|--|
| First Name:     |  | Last Name: |  |
| Street Address: |  |            |  |
| City/State/Zip: |  |            |  |
| Phone Number:   |  |            |  |

Please check appropriate boxes

- ☐ **Registering as a Pilot:** All pilots must have current AMA membership  
**Pre-registration Fee:** (received/postmarked before May 1<sup>st</sup>) \$15.00  
**Late or Fee Paid at the event:** (fee received after May 1<sup>st</sup>) \$20
- ☐ **Registering as a factory sponsored pilot:** No Charge  
Do you plan to do a noontime demo? Yes ☐ No ☐
- ☐ **Registering as a Vendor:** No Charge  
Tables and shade cover available in the pit area.
- ☐ **RV Camping site:** \$5.00  
10 sites available with electricity and water at each site  
(tent camping allowed on the grassy area at no charge)

Note: there are three reasonably priced hotels available at the Cochrane exit

If you plan to fly on 72MHz, please indicate which frequencies you will be using:

|  |
|--|
|  |
|--|

- Lunches/Snacks will be available for purchase from the SCCMAS club on both Saturday and Sunday: Hot Dogs, Hamburgers, chips, and soft drinks, etc.
- 120v charging stations will be available to those flying Electric Heli's

For More Information - Contact: Dave Neves, Contest Director, at: [rcheliguy7@gmail.com](mailto:rcheliguy7@gmail.com) or (510) 673-4467

Make Checks Payable to: SCCMAS  
C/O Dave Neves  
36607 Capistrano Dr.  
Fremont, CA 94536



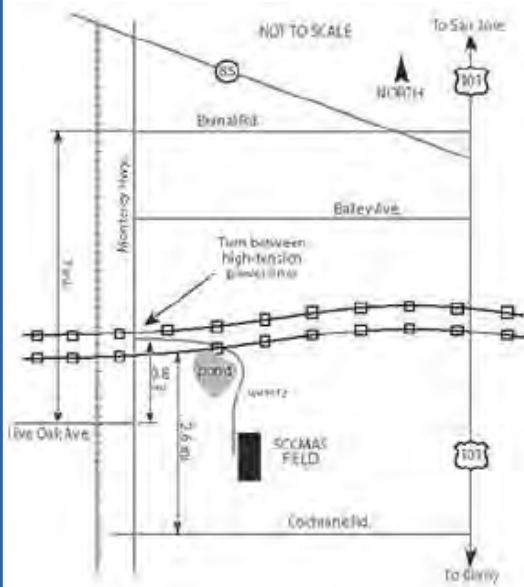
PILOT NO. \_\_\_\_\_

# Warbird Fly-In 2014



**Saturday June 23rd**

**Tomcats field Morgan H**



**Open to all AMA members with any size of R/C Warbird aircraft; prop or jet from any era; any engine type; gas, glow, electric, turbine.**

**Awards for best in class WWI, WWII, Modern/Jet and best of show.**

## Registration: 9:00AM

**Entry Fee: \$10**

## FREE Noon time BBQ for the pilots

## Awards: 3:00PM

**CD: Lynsel Miller (408) 375-6103**

**More information is available at [www.sccmas.org](http://www.sccmas.org)**



# Helicopter Training News



This month's helicopter article begins on a sad note. On 4/24/12 we lost a fellow model helicopter enthusiast. His name was Al Wert. Al was very much involved with that small portion of model helicopters we call "Scale". The scale guys are a very tight knit group of modelers that look at helicopters in a very different way than their 3-D counterparts. The objective is to make their models

look and fly the same as their full scale versions. I have known Al since 1995.

I met him at a helicopter event in Bakersfield. Al had entered a gasser powered Huey that was running on alcohol. I was always amazed at the level of detail and how quickly Al could put together these complex scale helicopters. As time went on, Al's models continued to get bigger and bigger. He finally crossed over into some amazing turbine powered models. Al also created Starwood Scale Models. His hobby business provided some of the best top of the line scale helicopter products available to the scale helicopter enthusiast.

In 2000, Al created Circumgyration. This was a model helicopter event designed exclusively for scale helicopters. Al put much of his time and money in making this event the largest and most prestigious scale helicopter event in the US. Al inspired many of us in the model helicopter hobby and he will be greatly missed.

On Sunday, April 22<sup>nd</sup>, while cutting the grass in the heli area, Walter Colby and Leo Gonzales discovered a rattle snake near the heli pits. I want to bring this to everyone's attention because this is the time of year that snakes are more active. If you happen to see a rattle snake, please keep your distance and bring it up to the attention of one of the clubs officials.

**Dave Neves**



A fairly regular field visitor

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

|  |  |
|--|--|
| <b>AeroMicro</b><br>The Source of Electric RC Supplies |  |
| <b>Perry Lee</b>                                       | 2090 Duane Avenue<br>Santa Clara, CA 95054<br>U. S. A.<br>Phone: 408-496-6699<br>Fax: 408-496-6669<br>info@aeromicro.com<br>http://www.aeromicro.com |

**California Hobbies**  
*RC Planes-Helicopters-Cars-Boats*  
 1702 Meridian Ave, # 1  
 San Jose, CA 95125  
 408-448-1449  
[www.california-hobbies.com](http://www.california-hobbies.com)

96 N. San Tomas Aquino Rd.  
 Campbell, Ca 95008  
 Phone: (408) 379-1696  
 Fax: (408) 379-1652  
 Web: [www.djhobby.com](http://www.djhobby.com)  
**D & J Hobby and Crafts**  
 Your Hobby and Crafts Shop

**PIC**® Penn International Chemicals  
 A Division of PIC Adhesives, Inc.  
 A California Corporation  
 PO Box 4202  
 Mountain View, California 94040  
 (800) 722-GLUE  
 (650)322-1030 ph/fax  
**Reggie Dell-Aquila**  
 President

**SHELDON'S HOBBIES**  
 Store Hours:  
 MF 10:00-6:00  
 Sat 10:00-6:00  
 Sun 10:00-5:00  
 2130 Trade Zone Blvd.  
 San Jose, CA 95131  
 408-946-3801  
 ... for all your R/C and hobby needs  
[www.sheldons hobbies.com](http://www.sheldons hobbies.com)

**Andy's Hobby**  
 17511 Monterey Road  
 Morgan Hill, CA 95037  
 right next to the Sinaloa Restaurant.  
**Norred Aero Products**  
[www.norredaeroproducts.com](http://www.norredaeroproducts.com)  
 408-482-5437

The Santa Clara County Model Aircraft Skypark "Tomcats" Present a Radio Controlled

# Airshow '12



July 7th  
& 8th  
9am-3pm

**FREE Admission!**  
[www.sccmas.org/airshow](http://www.sccmas.org/airshow)

- TURBINE JETS •HELICOPTERS •RACING AIRCRAFT •AEROBATICS
- GIANT SCALE WARBIRDS •ELECTRICS •CONTROL LINE
- SNOOPY'S FLYING DOGHOUSE •GLIDERS •FAMILY FUN
- TRY YOUR HAND AT FLYING •CAR vs PLANE RACE
- COMPUTER SIMULATOR •FOOD, REFRESHMENTS & MORE!
- LIMITED SHADE & LIMITED SEATING AVAILABLE

Airshow 2012 is brought you by the Santa Clara County Model Aircraft Skypark, Santa Clara County Parks and Recreation Dept, Sheldon's Hobby Shop (San Jose), Penn International Chemicals, California Hobbies (San Jose), Aerodynamic Aviation (San Jose), D&J Hobbies (Campbell), Aero Micro (Santa Clara), Andy's Hobbys (Morgan Hill)

The SCCMAS is located 10250 Monterey Road, Morgan Hill, Ca - For more information call (408) 292-1212 or visit [www.sccmas.org](http://www.sccmas.org)



**Ride your bike!**  
We're accessible  
from the Coyote Creek Trail



**For more info:**  
email: [airshow@sccmas.org](mailto:airshow@sccmas.org)  
web: [www.sccmas.org](http://www.sccmas.org)  
phone: 408-292-1212

Bring the whole family! Come and enjoy a fun filled day full of Radio Controlled excitement. See flying like you've never imagined possible, and try your hand at flying during the noon-time lunch break.

## Schedule for Saturday & Sunday

|       |  |
|-------|--|
| 9:00  | Pre-airshow Activities   |
| 10:00 | Opening Ceremonies   |
| 10:05 | Gliders and Slope Soaring - Along with aero-tow demonstrated by the South Bay Soaring Society.   |
| 10:30 | Electric Flight - See these quiet, graceful, yet powerful flyers in action.  |
| 10:55 | Control Line - Check out the best in control line combat and aerobatics  |
| 11:15 | Fly Fast & Turn Left - Experience racing action as many high speed racing designs fly the course at over 150mph.   |
| 11:45 | Trainer Demo - We'll show you just what a "buddy box" is, and what it takes to learn to fly.   |
| 12:00 | Lunch Break - Check out the airplanes up close and talk with the pilots. You can even try your hand at flying R/C with an instructor and a trainer plane! (FREE) |
| 1:00  | Snoopy vs the Red Baron - Snoopy's flying doghouse goes head to head with the Red Baron.   |
| 1:15  | Things that Shouldn't Fly - Flying Witches, Stop Signs, Cars and more.   |
| 1:30  | Giant Scale Warbirds - Witness WW2 Warbirds such as Corsairs, P-51s patrol the skies along with many other 1/5 scale or larger aircraft                          |
| 1:45  | Helicopter Flying - See scale and aerobatic helicopters put through their paces doing things that seem to defy gravity.  |
| 2:15  | High Tech Jets - Witness 200mph action as real turbine powered jets strut their stuff.   |
| 2:40  | Aerobatics - Watch the Bay Area's top aerobatic pilots put their aerobatic machines through IMAC, Pattern and out of this world Freestyle sequences.             |
| 3:15  | Airshow Conclusion   |

## Directions to the Skypark

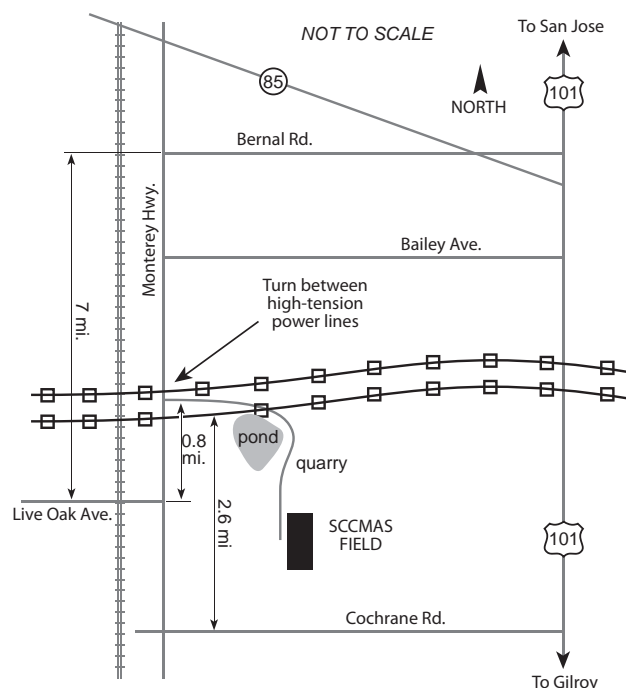
### HOW TO GET TO THE SKYPARK:

From Morgan Hill and Gilroy: Take the Cochrane Avenue exit from Highway 101. Proceed west on Cochrane to Monterey Road (0.6 mile). Take Monterey Road north approximately 2.5 miles. After passing Live Oak, turn right at the entrance to the SCCMAS Tomcats. You'll see our 8'x 10' sign at the entrance to the driveway (between the high-tension power lines). Proceed down the private driveway and through the first gate. Follow the road to the right around the pond and continue to the field.

From San Jose: Traveling south on either Highway 85 or 101, take the Bailey exit from 101, west to Monterey Road. Proceed south on Monterey Road, 3.5 miles to Live Oak. You will have passed the field entrance on the other side of the road, but there is no opening through the divider. Turn around at Live Oak and proceed back on Monterey Road, north-bound (0.8 mile) to the entrance to the SCCMAS Tomcats sign and the private driveway to the field. Notice: The speed limit on the private road to the field is 15 mph.

Carpooling is encouraged, and a shuttle will be provided 10am to 4pm for those who park in our overflow lot off of the entrance road.

The SCCMAS is located at 10250 Monterey Road, Morgan Hill 95037 and is a facility of the Santa Clara County Parks and Recreation Department  
\*Schedule is subject to change without notice, including the addition of fill-in acts.





## Officer and Volunteer comments

### Mike Luvara

- Bahman is the new Servo Chatter newsletter editor
- The field weeds are down
- One new member
- No new solos
- Need air show volunteers
- Went over member surveys
- 366 members current at SCCMAS

### Peter Vogel

- Need instructors and helpers at Air Show noon fly events
- Almost done with the club training manual
- Average one new person per week interested in taking on the hobby
- There is a Lipo battery disposal tank at the field located by the radio compound

### Don Coulter

- Thank Walter Colby for his hard work on leveling the lawn, working on grass strip it need more leveling
- Heli area has been cleaned up even more

### Walter Colby

- Call me for to help locate lost parts in field
- Make sure to clean up after yourselves. Please not littering
- We may need a new lawn mower in the near future

### Tim Stahlke

- Safety award goes to Roger Pellor who called out for everyone to land their aircrafts when a scale blimp was spotted close by. Pilots must yield to all manned aircraft or risk field closure.
- Safety award goes to Matthew Smith who was awarded for good communication on flight line.

### Steve Smith

- Event schedules available at the local hobby shops
- Warbird and T-34 races combined this year
- There are snack shop volunteer openings
- Need lap counters and pylon judges for warbird race

### Dave Neves

- Heli event coming May 18-20

### Lynsel Miller

- Mentioned a great glider event happened last weekend of April at the Los Banos Reservoir

## Show and Tell:

### Rick Miada

Unlimited giant scale air racer 222 "Miss Sta Brite", 290 CC/50hp glow engine, 36 lbs, 1 gallon of fuel gives a 6 minute flight, estimates 260mph, 23x30 Carbon fiber prop, Plane built from Dave Bridi mold, servos 300 oz of torque



### Walter Colby

A-10 jet, Banana Hobby, looks cools but parts are not that great of quality





**Matthew Smith**

Nut Balls, homemade, built from Home Depot purchased foam

**Carlos Tripodi**

SBach, cost 169.00, 150 brushless, 180mA battery, outdoor flyer, 1.7 gram servos, great aerobatics and very fun to fly

**Sean Berkheimer**

Formula1 Good Year Racer for kids, will be donated to cancer charity race. Plane will be decorated with cancer ribbons, flown once then retired and given to Sean's girlfriend's mother, a cancer survivor.

**Roger Pellor**

Rebuilding a trainer for his grandson in New York. Roger is hoping to get it up and certify his grandson with it when he visits there soon.

**Mike Leggett**

Ryan ST foam ribbed wing (blue foam), 1/3 the weight of contest balsa, he is making it into a 10 foot wing.

**Raffle:**

Carlos Tripodi  
Dave Neves  
Roger Pellor  
Bervin Britt  
Kyle Alegrete  
Walter Colby  
Randy  
Mike Leggett  
Ron Marier  
Chris Tryhorn

DX5 Radio  
Insta set  
Forceps  
Glow Driver/Foam/Forceps/Cups  
Epoxy  
Accelerator  
Boxes  
Brushes  
Fiberglass  
cups

## Effect of Transmitter Antenna Orientation (Polarity) Relative to Receiver Antenna Orientation at 2.4 GHz.

Pat Rose  
patroserc@aol.com

|   | Meter Reading | dBm <sup>1</sup> |
|---|---------------|------------------|
| Xmt Ant Vertical/<br>Rcv Ant Vertical   | 0.32          | -23 dbm          |
| Xmt Ant Horizontal/<br>Rcv Ant Vertical | 0.20          | -26 dbm          |
| Xmt Ant Vertical/<br>Rcv Ant Horizontal | 0.11          | -29 dbm          |

There has been some discussion about interference caused radio failures at the Tomcat field in Morgan Hill. One factor in these radio failures could very well be transmitter antenna orientation relative to the receiver antenna orientation. Walt Jellison explained this problem in an article that appears in Newbie Help, available at the SCCMAS web site [sccmas.org](http://sccmas.org). While Walt made his observations with radios at a lower frequency (72 MHz), I believe the same problem could occur at 2.4 GHz. Also, given the receiver antenna is much shorter at the higher frequency, it could be more susceptible to a large engine or large battery radio signal shadow effect. If the radio still works after the crash, and no airframe failure can be found, this would be a clue.

I tested my theory in a practical setup, not having access to a spectrum analyzer. The signal source is a Futaba T7C and the receiver is a Digi-Field field strength meter, with a Trendnet 5 dBi gain LAN antenna. The 5dBi receive antenna connects directly to the field strength meter via a male N-to-reverse SMA adapter. Antenna to antenna distance is 25 cm or about 2 wavelengths.

As you can see in the first photo, both transmit and receive antennas have mechanical joints at the base. This allows the horizontal orientation of the particular antenna during my measurement. It can be seen that rotating the transmit antenna drops the received signal level about 3 dB (-23 dbm to -26 dbm) or half power. In contrast, with the transmit antenna vertical and the receive antenna rotated horizontal, I got a 6 dB drop in signal level. (Oops, I need to explain "db".)

No doubt my unsophisticated setup has prevented better signal amplitude drops. I have personally witnessed signals in the GHz frequency range drop with antenna rotation until the transmit signal disappeared from the screen of the spectrum analyzer with a 90 degree rotation.



So now what? I suggest that during your on-the-ground range checks, as is usually performed with a newly assembled model (Note2&3) that the nose of the plane is pointed toward you as you walk backward. This would place the receiver antenna in the "shadow" of the transmit antenna signal as masked by the electric motor or fuel/gas engine. When you think you have walked back far enough as specified by the radio manual, rotate the transmitter +90 degrees and then -90 degrees to see if you still have control of the model. Then, just for grins, point the antenna tip toward the model and determine if you still have control. This pointing of the transmit antenna is probably the worst case for received signal at the model. You may find that this "worst case" range check technique will produce a non-controlled model. This ground failure could help explain the rumored "interference" caused model crashes at the SCCMAS.



During normal use, make sure the transmitter antenna is bent toward the front of the transmitter. That's why there is a rotational joint in the base of the antenna. This position of the antenna presents the side lobe of the radiated signal from the transmit antenna towards the flying model. (I wish I could take a photo of this concept.) Trust me, the radiated signal from the antennas is strongest at 90 degrees from the length of it, not at the tip, sort of like a donut that the antenna is poking through the center of. If you are interested in this concept, do a web search on "antenna side lobes.". Thanks to the Spektrum DX6i manual for pointing this out. There are other antenna concepts that are appropriate for the RC hobbyist to know about. Perhaps in a future paper.

Rev 25 Apr.12

### Notes:

1-Meter reading to dBm conversion from chart in Digi-Field manual.

2- 30 to 50 paces in the power down mode using the Futaba T7C.

3- With the Spektrum DX6i, 30 paces should be obtained without loss of signal. The antenna cannot touch the back of the transmitter. Turn antenna tip to point away from model and ground.









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

**Next Meeting: Saturday, June 2nd at**  
**SCCMAS field @ 5:00pm**

**BBQ provided by SCCMAS. Feel free to bring your favorite dish to**  
**share and enjoy a great evening at the field**

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 is it 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.