Servo Chatter

September 2008, Issue #131
Official Newsletter of the SCCMAS "Tomcats"
Located in Morgan Hill, CA

www.sccmas.org
AMA Club Charter #110

Next Meeting: Thursday, October 9 at 7 PM. Location: Hayes Elementary School in San Jose.

Cover photo: Leo Gonzalez at the controls of his Santa Clara County Sheriff's patrol, as seen at the Electric Fly-In. Pat Rose photo.

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

In This Issue

RENEWALS ARE COMING SOON!!!

Before the next newsletter comes out you will most likely be getting club renewal letters in the mail. Remember that this year; club cards are only valid through December 31st.

So, when your AMA renewal shows up in the mail, get it in as soon as possible to avoid delays in getting your club renewal in. Club renewals will again require a copy of your active AMA card.

An E-mail message will be sent when the renewal notices go out in the mail. Turn them around fast to help us get new cards out to prevent your showing up at the field without a card on New Years Day.

Cordially,
SCCMAS Officers

Flyin' Fast - President's News
By Michael Luvara

Since our last issue, we've had quite the summer. Started off with a warbird race, airshow, and lots of great days for flying! Our annual club bbq and meeting on August 2nd was very well attended and I know that we certainly fed everyone well. Thanks again to all of those who helped at all of the events this summer. Without you, it would not have been a success!

My last column was submitted before the annual airshow and boy, what an airshow it was! I cannot thank the members and volunteers enough for all of their hard work. The Boy Scouts did an outstanding job handling parking, the snack shack was busy, and the raffle booth did very well. We even gave away some 1000 free gliders to visitors!

Renewals will be mailed in the coming months. Please make sure that you have your AMA renewed. We will have some changes in the dues structure, mostly pertaining to the family memberships. This will be explained in the renewal form and in the coming months.

Please read this month's safety column. Tim has a great article that is definitely worth reading.

That's all I've got for this issue. Enjoy the great fall flying weather!

Until next issue,
Michael

Electric Fly In, Jim Patrick photo.

Old Man Learns New Trick

Today at the field (3 Sept. 2008) I noticed Jim Boes performing a landing slip. He flies the same plane that I have (Aeroworks 60 size Edge), so I thought my plane would also perform a slip. Anyway, after a couple explanations from Jim, I tried to slip with my Carl Goldberg Tiger—the plane I was flying today. As promised, the plane fell like a rock from a high approach to the runway, while still maintaining control.

The following was edited from wikiHow:

Flaps aren't the only way to help you lose altitude in a short distance. Many times they aren't even the best. The slip can make your plane drop like a rock while maintaining control throughout the maneuver.

From the Editor

By Pat Rose

Forward Slip to Lose Altitude

1.Fly a normal traffic pattern and line up the runway on final.

2. Pull the throttle to idle.

3. Depress either rudder and apply opposite aileron. The slip is executed by cross control, so ensure you have plenty of airspeed to avoid stalling. The nose of the aircraft should be pointed down and towards the side of the runway and the wing towards the runway should be lower.

4. Control the direction of the plane with the aileron and use the rudder to control the rate of descent.

5. Once you have reached the desired altitude, release the rudder and level the plane with the ailerons.

Crosswind Landings

1. Fly a standard approach to final.

2. Lower the wing into the wind. If the wind is from the left, lower the left wing.

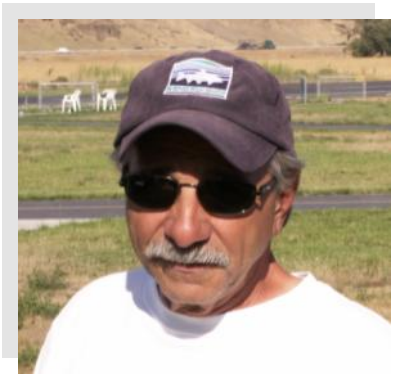
3.Apply opposite rudder to keep the nose aligned with the centerline.

Touch down on the up-wind wheel first.o

Upcoming Meeting: Thursday, October 9 at 7 PM. Location: Hayes Elementary School.

See page 16 for a map showing Hayes Elementary School. Future meeting dates include Dec 3rd, Jan 22nd, Mar 25th, and May 21st.

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.



From The Secretary's Building Board

By Rich Luvara

Meeting notes for Aug. 2, 2008

There were 85 members and their guests present for the annual barbeque meeting. Thanks to all who brought side dishes. The club provided Italian sausage as the main dish. We had plenty of food and desserts including a cake that Lynn provided since it was Don Coulters birthday.

Congratulations to the newest solo: John Neal.

Young Mathew Smith was the recipient of the " Dumb Thumb."

Raffle:

Chris Attabury won the radio, he will have to provide donuts for the next meeting.

Vern Bollesen..fuel, CA glue

James Gale.. covering iron, latex foam

Murl Kulp..xacto knife

Babe Caltibiano.. Kicker and CA glue

Bervin Britt..fuel,and iron

Ron Marier..epoxy

Steve Smith..monocote, Control rods, CA

John Ribble..Zona saw, control rods

Jacob Boracca..Zona saw, latex foam

Michael Luvara..CA and xacto knife

Ali Mutahir..CA

Gary Painter..CA glue, Latex foam, control rods

Pat Rose..CA glue

Steve Culp..latex foam

o

Club Meeting on August 2 remembered in pictures.

Pat Rose photos.

Don Coulter's birthday cake.

Safety

By Tim Jones

Predictable and Unpredictable Failures

I've been involved in a few discussions lately about transmitter impound responsibility. There are a lot of opportunities for things to go wrong in our hobby or sport. We are counting on a lot of things to go right to allow us to operate a model airplane through an invisible means of control. We count on the glues and fasteners to hold things together. We count on the mechanical integrity of the engine or electric motor. We count on the switches and connectors for our servos or speed controllers to operate without flaw. We count on the batteries to maintain their charge through several flights in a day of activity.

Many of the things we count on, we have no direct control over. Some we do. We can and should range check our radio equipment. We take varying degrees of care in preparation of our planes before flights. Most of the things that worked before, we count on working again. Sometimes things don't work the way we'd like.

Many, if not most fliers have had the experience of the helpless feeling of loss of control of a flying model. I have witnessed the loss of some fantastic models at our field with no clear explanation for their loss. With no apparent explanation for the loss, the most often blamed is radio interference, or failure. In either case, the cost of finding out what happened can be very high. In some cases before one confirms that the radio system is at fault, several models may have been lost. Even with the highest level of care and preparation or expense, we cannot predict radio system failure. We can explain a loss of a control surface or a broken control horn or motor mount. We can see a wing failure or a mid-air collision. But we cannot see the cause of a loss of control due to radio communication trouble. This may be a receiver problem, a transmitter problem or interference due to conflicting transmitter signals or some signal innocently produced by a passing truck or aircraft.

While we may not be able to predict radio system failure, we can take measures to prevent unpredictable failures. Here are some of the measures we can take;

-Carefully read and follow the installation instructions when installing the radio system in your craft.

-Carefully read and follow the care instructions for your transmitters. Get a case for your transmitter to ensure that it is stored and transported to prevent damage, whether obviously visible or hidden inside.

-Maintain and monitor the condition of your batteries, through occasional cycling to aid in knowing when to replace older batteries.

-Don't assume that just because a radio system is new, or expensive, that it works properly.

-Perform a proper range check as recommended by the radio system manufacturer whenever installing a new system, repairing a model or moving components in a model.

Safety continued on page 8.

Safety continued from page 7.

The above are measures to prevent unpredictable radio system failures. There are more measures we can or should take before and after every flight to prevent "Predictable" failures.

A predictable failure is one where there are some actions or circumstances, which we know will result in the loss or damage to a plane. This can be flying your plane while not confirming the charge condition of your receiver or transmitter batteries, or even letting someone else mount the wing on your plane without personally confirming the tightness or existence of the wing bolts. Maybe we didn't perform a control surface check to make sure that the aileron direction control is correct. A most obvious preventable predictable failure of course is frequency conflict created when more than one transmitter is on and active on the same frequency or channel

We have several provisions set up at our field to prevent the frequency conflict problem. We all know that we have an obligation to not turn on our transmitter if we don't have the frequency pin in our possession. But the fact that we have the pin in our possession does not cover for all of the predictable failure prevention steps that we should take. Here are a few suggestions to help prevent predictable failures;

-Find and introduce yourself to others sharing your frequency. Evidence of this should be available by the placement of club cards in the appropriate frequency slot in the transmitter impound.

-Locate transmitters sharing your frequency when you have the frequency pin and insure that all other transmitters have been turned off. The fact that you have the pin does not guaranty that another transmitter was not accidentally left on or accidentally turned on while placing it in the impound.

-Keep the frequency ID flag on your transmitter antenna to help others insure that your transmitter was not accidentally left on. I believe that there is an AMA or FCC rule requiring that the ID flag be in place at all times

-Maybe even randomly double check transmitters in the impound to make sure that none have been left on whether sharing your frequency or not.

Remember, that while we have many measures in place to prevent damage or injury, we are people. For all of the protective measures, rules and practices that we may have, accidents do happen. The best that we can do is to take every measure available to us to avoid the accident. While we may take the appropriate measures, we are still subject to the "Unpredictable" failure. Until we flip the prop and release the plane from our grip or restraint, the risk is fairly small. But once we start and release the plane to operate through the invisible radio connection, the risk of failure goes up greatly. The amount of risk is the same whether the plane is a small foamy or multi thousand dollar large model or jet. Keep in mind the risk involved and consider all of the steps we can take to prevent predictable or unpredictable failures.

A little long, but so too have been some of the recent discussions referred to in the first sentence.

Still having fun,

Tim

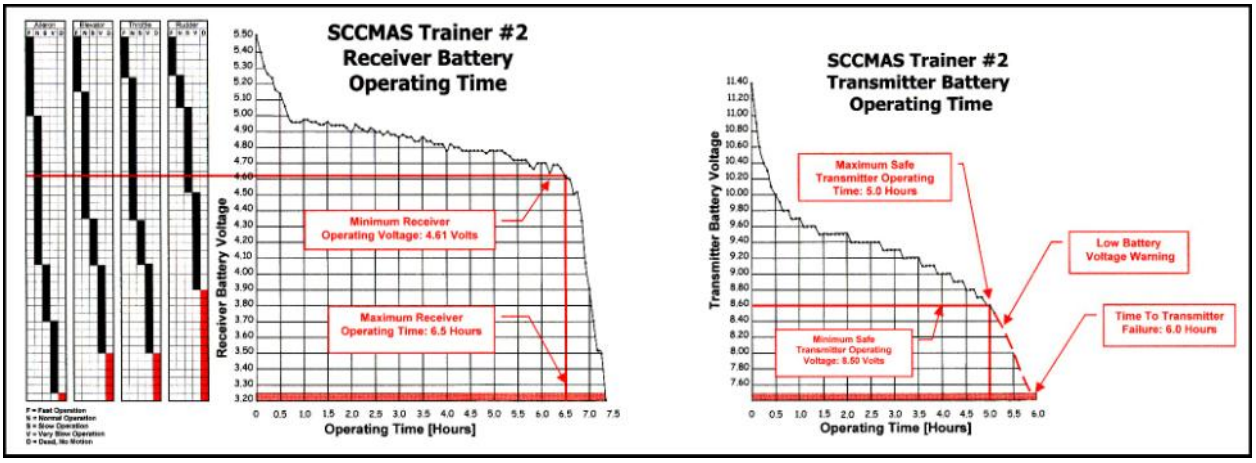
o

Training

By Mike French

How Long Can You Fly? How Do You Know?

As R/C enthusiasts we take a lot on faith. Those of us who are not aeronautical engineers presume Bernoulli's Principles regarding airflow over a surface are correct. We also presume [to our peril] that there is enough charge in the batteries of our transmitter and receiver to last as long as we want to fly. But to answer the first question precisely without the benefit of faith requires that we carefully measure both transmitter AND receiver discharge voltage rates as a matched pair. I measured the operating voltages with time to failure on our club trainer and realized that I made an erroneous estimate in my last article about the trainer's predicted flight time with its 650 mAH battery. It turns out that the receiver battery <u>is</u> ideally selected for its matched transmitter. I logged the reactions of the servos in an effort to determine if there are other quick ways of finding how close to peril we are if I decide to fly the plane more than five hours from recharge. I took data every five minutes for more than seven hours. I recorded each servo characteristic to see if I could characterize its response degradation with declining supply voltage. If we look at the resultant graph [to be found printed on the club trainer's horizontal stabilizer], we can formulate a plan to estimate flying time based upon visual servo response. But let's look at the overall receiver and Futaba FP-T7UAP PCM1024 Programmable Transmitter characteristics of our club's trainer first.



The transmitter and receiver batteries are a pair. The transmitter battery must fail before the receiver's battery and the transmitter itself must scream at you that failure is eminent while the receiver is in no jeopardy.

Training continued on page 10.

Training continued from page 9.

Reversing this order would be catastrophic. Our transmitter will safely operate for about **5 HOURS**. Our receiver will last safely for **6.5 HOURS**. If you carefully turn the transmitter and receiver off after each flight, one could fly a day's worth with five hours in the air. There is yet much here to be concerned about. We know that the torque generated by each servo varies from one to the next. The loads place upon each servo is far from equal. It would be expected that as the battery voltage decayed, the response time of the servos would slow unevenly. By looking at the differential servo behavior shown in the four charts to the left of the receiver graph, a visual picture of how each servo behaves with declining voltage is represented. From left to right the major columns are aileron, elevator, throttle and nose gear/rudder servo response listed in categories of **F**ast, **N**ormal, **S**low, **V**ery slow and **D**ead.

After approximately 15 minutes of being fully charged, the nose gear/rudder servo and throttle servo begin to slow. The rudder is particularly less responsive. After 30 minutes, the elevator has slowed but is still responsive. After 40 minutes the rudder becomes slower still. It certainly is flyable but sluggish. One would want to be more careful in lining up the plane before takeoff as the nose gear control won't be moving as fast. At 45 minutes the ailerons are noticeably slower but the plane is still responsive. This behavior would hold constant for the remainder of the safe receiver time of **6.5 HOURS** [We are presuming that the 5 Hr limited transmitter has been recharged].

But after 6.5 hours, things begin to deteriorate quickly. Most noticeably, the rudder/nose gear will become almost unacceptably slow. This would be your best indication that it is time to quit although everything else is still hanging in there. At about 7.0 hours, the elevator and throttle servos start slowing down. It would be flyable but barely so. You're asking for it if you are still airborne under these conditions. At little after 7 hours, the nose gear ceases to respond. You've lost steering. At 7 hours 15 minutes the ailerons get sluggish. A few minutes later you'll lose elevator and throttle. At 7 hours 30 minutes, the ailerons are dead and it's all over.

You have to give credit to the designers of the digital transmitters. Our club trainer's transmitter complains in every way it knows how to tell you that it is about to fail. You have to be stone deaf and blind for at least a half hour from the time that the warnings and alarms start to the time the transmitter actually fails. If you have a transmitter that doesn't have these warnings, then it is even more important that you take the data that I did on your plane's electronics to know just how long your complete system lasts and what warning signs you have to determine if you are in peril. Happy flying!

Mike French **o**

Contest News

By Steve Smith

Fall is in the air – with colder mornings, earlier sunsets and possible rain this time of the year, there are still several events remaining for 2008.

On August 23rd the Electric Fly-In was in full swing. With the great weather and 23 registered pilots, everybody enjoyed a fun-filled day of quiet flying and chatting with fellow electric modelers. Thanks to Bahman Dara for making this event a success.

The next scheduled event in the lineup is the annual pattern day on Saturday September 27th . This year the pattern contest schedule had some modifications making this an event for pattern flyers to have one-on-one training to tune their flying skills. The field will be closed for general flying from 9:00AM until 2:00PM. Contact Luke Ping at lsjpeng@comcast.net for additional information.

On Saturday October 11th the Tomcats will host the final T-34 race of the Triangle Series. Dust off those T-34's and come out and enjoy an action-packed day of racing and fun. For more information visit www.t34racing.com . I'm still in need of helpers to count laps, run the registration office and manage the race matrix during the day. If you are interested in helping, contact Steve Smith at (408) 234-0095 or contests@sccmas.org .

Mark your calendars for the final R/C Swap Meet of the year at the Tomcats, Saturday November 1st rain or shine from 8:00AM till 1:00PM. 10'x10' spaces are $10 per seller, no booth sharing is allowed. Spaces are on a first come, first served basis, so get out early. Donuts and coffee will be served in the morning followed by a noontime BBQ. More information is available at www.sccmas.org .

The final event of the year is the annual Toys -For-Tots – Bob Whitacre memorial Fun Fly on Sunday December 7th from 9AM to 1PM. The Pancake breakfast was such a success last year, we're going to do it again this year. The Boy Scouts will do the cooking. The entry fee is any unwrapped toy. Don't miss it, come out, enjoy a Pancake breakfast and flying with other modelers. Additional information is available at www.sccmas.org.

See you at the field,

Steve Smith o

Treasurer's Report

By Jim Patrick

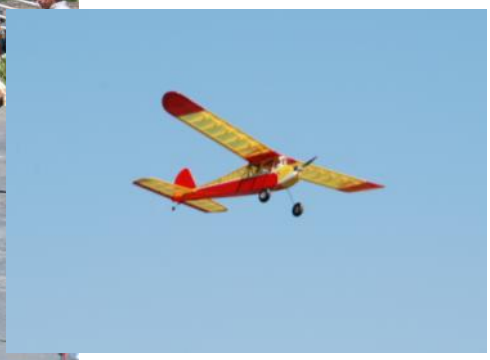
SCCMAS Profit & Loss
Cash Basis
July 8 through
September 8, 2008

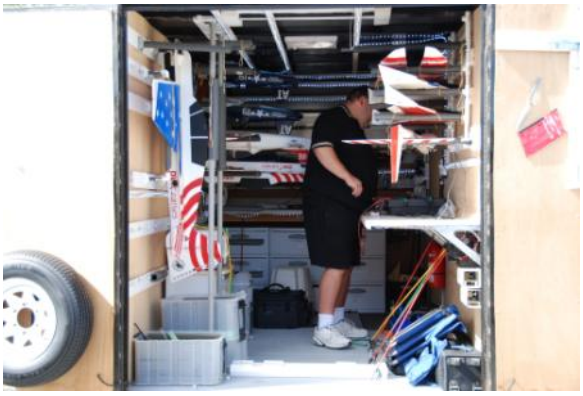
Ordinary Income/Expense	
Income	
Contest entries	200.00
Donations	20.00
Food sales	3,802.00
Membership dues	1,110.00
Airshow Raffle	1,366.00
Vending machine	420.00
Total Income	6,918.00
Expense	
Advertising	269.00
Bay Alarm	135.00
Computer supplies	29.76
Contributions	350.00
Food	2,290.82
Garbage service	368.54
Licenses and Permits	25.00
Postage and Delivery	396.80
Printing and Reproduction	710.71
Professional Fees	
Legal Fees	1,350.00
Total Professional Fees	1,350.00
Raffle supplies	976.47
Rents paid	1,206.50
Repairs and Maintenance	
Field repairs	344.73
Janitorial Exp	55.00
Total Repairs and Maintenance	399.73
Sanitation service	1,154.58
Supplies	424.19
Telephone	
Internet	139.90
Telephone - Other	146.96
Total Telephone	286.86
Utilities	
Gas and Electric	776.87
Water	1,145.00
Total Utilities	1,921.87
Total Expense	12,295.83
Net Ordinary Income	-5,377.83
Other Income/Expense	
Other Income	
Other Income	300.00
Total Other Income	300.00
Net Other Income	300.00
Net Income	-5,077.83

Electric Fly-In, Aug. 23, 2008

Pat Rose photos.

Electric Fly-In, Aug. 23, 2008





Jim Patrick photos.

Doug Galbreath

Engine tuning

Solving the mystery of the head shim

(Copied from the NFFS May 2008 edition of FREE FLIGHT as suggested by Harold Davidson)

One of the most frequently asked questions I get is about head shims.

The problem goes back to the days when engines came with a gasket between the head and cylinder on most model engines. Some engines were made with no gaskets and some were made with no separate head. You just got what you bought. Of course, they also had spark ignition that allowed the adjustment of the ignition point to be adjusted for max performance with its fuel and compression ratio.

Then came the marvelous glow plug in the late 1940s. We all rushed to convert our gas/ignition engines over to glow. In some cases there were considerable increases in power. In many cases, however, engines were not compatible at all, and did not run well. The needle was finicky and could not be made to run steady, or the engines over-heated and quickly croaked. Later developments of cold, medium and hot plugs cured some of the problems by making the ignition timing somewhat adjustable.

Subsequent developments in engine design worked out the problems and the idea that if you can't make something perfect, then make it adjustable — the idea of thin shims for head gaskets was born. This allows us to use shims of different thicknesses to adjust for maturing engines, different fuels and glow plugs.

If you have complete flexibility, with compression adjustability, fuel components, and glow plug heat range, then juggling all three will eventually lead you to some combination that will work if you keep at it. When you boil it down to fixed fuel and fixed glow plug, you only have one choice — compression. This is exactly where we are in F1C, for example. In a similar way, in most power free flight events, with only the fuels being different, the quest for max power is leading us to elevated nitro content. ***If you add nitro, and the power doesn't increase, your compression is too high.***

In reference to the above paragraph, we are assuming that the engine designers and builders know what they are doing and the timing and other design elements are correct. We are only trying to address the tuning element here.

Here are the things you need to pay attention to in order to find the right compression for your engine.

If you have low temperature, an engine will be much more tolerant of high compression. If you have high temperature, an engine will be more tolerant of low compression. Conversely, if you have low temperature and low compression, the engine will be touchy on the needle and will want to quit when you lean it out, going into a situation of up and down, and an inability to set the needle. If you have high temperature and high compression, the needle will be very vague, and will only want to 2-stroke. In this condition, when you turn the needle to the rich side, it will make little difference until it finally gets over rich and dies. Said another way — If it is cold or cool and the engine only wants to 4-stroke, it is under-compressed. If it is warm or hot and it only wants to 2-stroke, it is over-compressed.

Engine tuning continued on page 16.

Engine tuning continued from page 15.

The correct compression setting is somewhere in the middle of these two conditions. Once you find the right compression, the engine will be good at both extremes and not need further fiddling. When an engine gets more mature, very often you will find that it will tolerate about .002 more compression

In modern race engines, like Nelson and Cyclon, when they are set up close to correct, we usually favor the high compression side more because we really don't want them to 4-stroke anyway. I like them to tell me by starting to miss and slow a bit when opening the needle, then just lean it out until it cleans up again and leave it there. In order to enhance plug life on very high rpm engines, you should avoid over-leaning when tuning the engine. Know where it wants to be set, and don't go past that rpm. One tenth of a second of running too lean is all it takes to melt the plug. (At 31,000 rpm, each second has 516 pops.) Using an acoustic tach can lead a flyer to watching the tach and over-leaning until the rpm drops and then backing off. At that point the plug is probably wounded, if not dead.

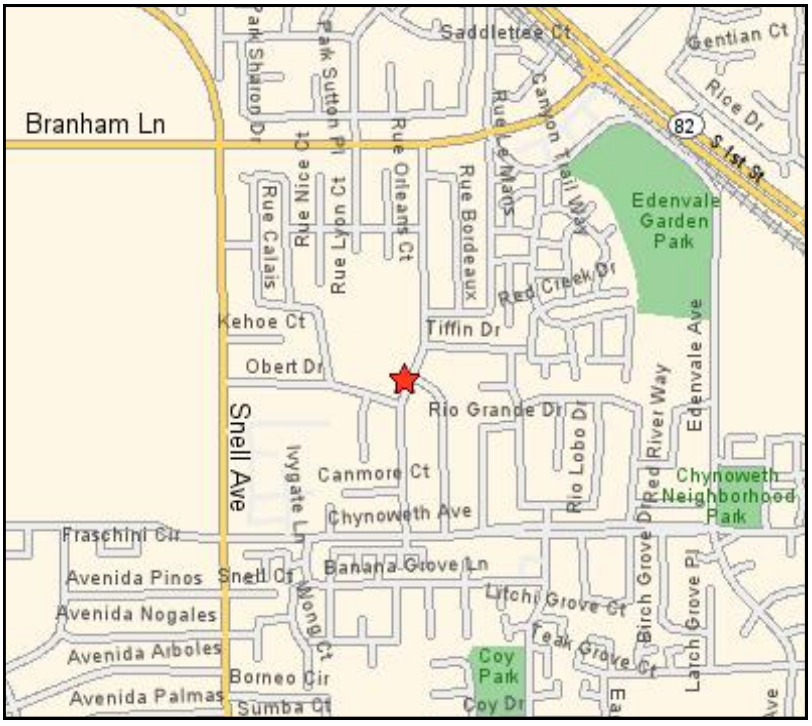
Bottom line — test your engine in the cold weather and get it to work in low temps. As a further check, test it in warm weather to see if you went too far with compression.

Your engine will talk to you and will tell you what you need to know if you are listening.

Doug Galbreath

Davis, Calif. **o**

Map to Hayes Elementary School, 5035 Poston Dr., San Jose.



Pattern Flying, Another Facet of Our Sport
By Scott Covey

If you are reading this perhaps you have already conquered the first in an endless series of challenges our sport has to offer - you have soloed! Now you will no doubt head to the field when your time allows and fly. You have many choices in your approach to flying and all will be fun. Each approach will be teaching you different aspects of flying. You may be content to fly around doing an occasional loop or roll, practicing your approach to landings, and heading back to the pits with a plane that does not need repair. These are all worth while goals. As you progress in your skill you may be drawn to Scale, IMAC, Racing, Helicopters, or Pattern. Each requiring a learned discipline, and practice.

You don't need to compete to do any of the above, as learning for the sake of learning to become a better pilot, is the best goal of all, and will keep your interest alive in our sport. If you want to become a better pilot and choose Pattern as your vehicle to do this, it will be a worthy challenge and will take a fair amount of practice – like the other disciplines listed above, to do it right. You DO NOT need to get another plane, or another radio, use what you currently have. Your goal will be to fly at the same distance (ideally about 150 yards out) so your plane can be easily seen, fly the same speed up, down, and horizontal. Keep all your rolls and radii the same (rate), and learn to control the plane with throttle and rudder. Many of you have seen Reggie fly this high-winged plane, and many have taken note of his use of rudder and throttle control as he 'slips into a landing' or does a rudder turn.

Pattern continued on page 18.

Pattern continued from page 17.

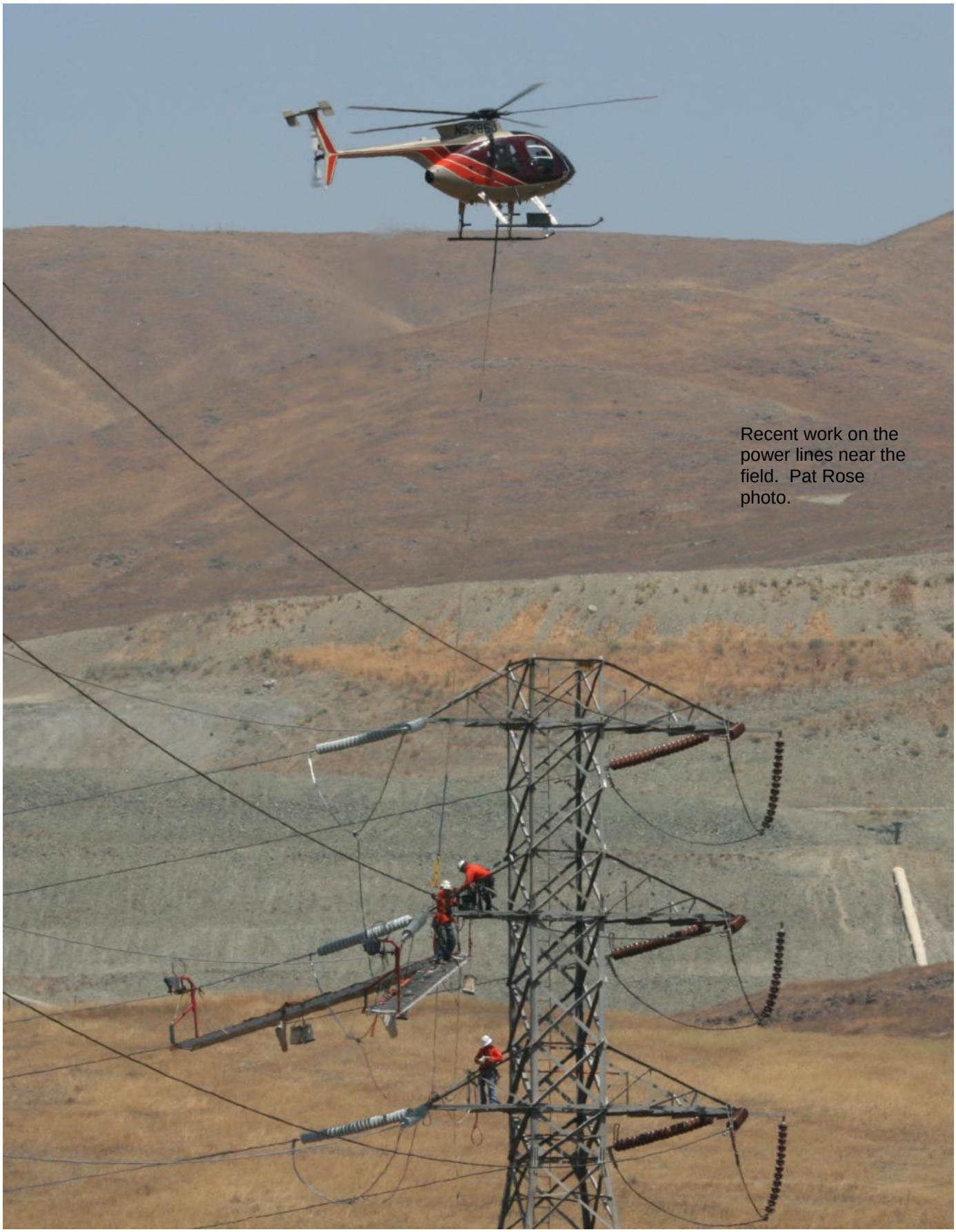
This is similar to Pattern, but Pattern is a bit more precise. So, if you are interested, give this a try… First, you must learn to fly parallel to the runway, at the right distance and airspeed. This is NOT a high speed pass from horizon to horizon, it's a controlled, level flight, rudder corrected, pass, at about ½ throttle. In order for this to occur, and assuming you are flying a low wing plane, you MUST see the outside wing, the wing farthest from you, or the plane is not level (think about this, the plane is flying some 50' high, and the viewing angle of the plane from your eyes, about 5' from the ground, will be to see the lower side of the outside wing – the wing farthest from you). If all you see is the inboard wing-tip, you are not flying level. This is a very common mistake, which leads to problems in more difficult maneuvers. There are many "pattern pilots' that have not mastered this yet. Let me explain the importance of this a little more.

Assume you want to do a stall turn and your wings are not level when you start, you plane does not go up straight, it goes up coming in or out, and this is not what we are after, we are after a perfect vertical line in this case, so anyone watching could not tell which way you were going to stall at the top. Apply this to a loop, the loop is leaning in or out if the wings are not level when you enter. I am not talking about whether the loop is round, but does the loop keep the same distance from the runway, or does it head in at the top, and out at the bottom? To keep this from getting too boring, let's look at a loop. You will need to stand in one of the end boxes at our field, and use the center line. You would start with straight level flight, parallel to the runway, and when you cross the center line, you start the loop. Keep a constant radius, use throttle on the way up (you were not flying full throttle in straight level flight), and ease off the throttle about 12 o'clock. You are after a ROUND loop, not an egg-shaped loop. A key to this is to not have too much elevator throw. I would guess anyone reading this will have 2X the amount of elevator throw you need to fly, which reduces the resolution of the control surface and the servo.

Pattern is NOT a 3D IMAC set-up, it's the exact opposite. Want to try one more, let's do a roll. This is not a sub-second roll with blurred wings, it's a 3 second roll, which starts and stops with wings level. You cross the center line when the plane is inverted with the wings level, not before, not after, but at center, when the plane is inverted. As you get better with this, you will use rudder to keep the plane going in a straight line at the 90 ad 270 degree points of the roll. The roll rate must be constant! This is what make the maneuver pretty to watch. Constant speed, constant altitude, constant roll rate, start and stop with the wings level. Hard to do? You bet! However, if you practice this, you will become a better pilot – in any future flying you do. Perhaps this all sounds simple, but give it a try, you will have a new appreciation for Pattern. So, if you are so inclined, try the above exercises and see how you do. It's sort of fun as you get better and try more 'precise' flying. Oh, if possible, get a friend to tell you if the loop is round (not an egg shape) or the roll is centered – and each of you can help each other.

Good Luck.

Scott Covey **o**



Recent work on the power lines near the field. Pat Rose photo.

T-34 TRIANGLE SERIES

Championship Races

OCTOBER 11, 2008

@ Morgan Hill, CA

Home of the SCCMAS Tomcats Club

World Models Mfg
T-34 Mentor

O.S. 46 AX engine only

Sponored By :
World Models Mfg / Airborne Models
APC Props / Bob Smith Industries
O.S. Engines / Hobbico
Johnson Racing / Norred Aero Products
California Hobbies / Hobby Town USA
Onsightsigns.com / RCAT Systems

Details:
Novice, Expert & Pro Classes
Public Raffle
Helpers Raffle

CONTEST DIRECTOR:
STEVE SMITH

FOR MORE INFORMATION, CONTACT KEVIN NORRED @ 408-482-5437 OR VISIT WWW.T34RACING.COM

R/C Swap Meet

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

Saturday - November 1st

8:00am – 1:00pm

Come join us at the SCCMAS field. Buy or sell your R/C related items. **No Pre-registration needed**. 10'x10' spaces, 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.

Clean out the workshop and find that project for the winter

10'x10' Space Rental $10.00
(No Booth Sharing or "Partners")

Commercial Sales, Hobby Shops, Store Fronts or Bulk Sales are NOT allowed.

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

SCCMAS Proudly Presents...

The Annual...

Toys for Tots-Whitacre Memorial

Sunday December 7th
9am - 1pm

Pancake Breakfast

This will be 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.

This event open to all members and guests with a current AMA status. Bring an unwrapped toy and enjoy a Pancake breakfast and a day of flying with fellow modelers.

For more info visit www.sccmas.org

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

Left to right: Jack Sunseri, the late Kurt Habura, the late Art Robinson, and Howard Sosbee. Planes are Senior Kadets, all kit-built. Photo by late Josephine Robinson.

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.

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

Next meeting: Thursday, October 9 at 7 PM. Location: Hayes Elementary School in San Jose.