



# THE SLOW ROLL



CHARTERED #921  
Since DEC. 1974



**IMAA Chapter 782**

**President—Frank Maskowitz**  
**Vice President—John Geyer**  
**Treasurer—Gene Peterson**  
**Secretary—Bruce Bretschneider**  
**Editor—Bob Purdy K9JNB**  
[rcbobsvf@aol.com](mailto:rcbobsvf@aol.com)

## MARCH 2012

*The Slow Roll is published by the Sun Valley Fliers  
By and for its membership to all others interested in  
the building and flying of radio control aircraft*



**Inside this issue:** Cover Photo by Joe Balabon of Vincent DiFabbio T-33.....SVF Hall of Planes .....  
President signs bill.....DEAD Beat List.....Pattern Contest results.....C.G.....SVF members photo...  
Safe Side Batteries.....Scale plans Novice Building Part 5.....Event Flyers.....Prez report.... B'Days  
& Treasurer Report ....New openings coming soon.....**MANY GREAT VIDEOS.....Much more, enjoy**  
*Don't forget SVF Meeting March 7 @ P.M.*



# THE PRESIDENTS CHANNEL

## Frank Moskowitz

### March 2012 SLOW ROLL PRESIDENTS LETTER

Welcome to the March 2012 Slow Roll.

Our first event of the year was the "SVF Pattern Championships". This was a great event accompanied by excellent weather conditions. **CD Gregg Frohreich** with the help of **Rusty Fried** and **Ken Melbye** kept the contest moving and certainly made the best of the excellent conditions. Thanks to the SVF members especially **Howard Kennedy, John Geyer, Bob Purdy, Neil Banyai and Lou Pfeifer**, who donated their time to help out at this event.

There will be a few weeks before the next event which is the **Phoenix Helicopter Fly-In**. This event takes place **Friday, Saturday and Sunday March 16-18**. Once again the field will be closed to members flying during that period. You're welcome to visit and watch these amazing pilots. **We could use some volunteers for kitchen duty as usual. Please contact me if you want to help.**

The board of directors would like to remind all of our members to conduct their flying activities in a safe manner and to observe the safety rules of the organization. For the protection of all of us, we also believe that it is the duty of each member not only to conduct his own operations in a safe manner, but to report serious violations of our safety regulations by other members to the Safety Officer. **Minor or occasional infractions should be pointed out to the individual involved in a helpful, constructive, and certainly a civil, manner and preferably in private. If the alleged violator doesn't respond, and continues to violate the safety rules it should be reported to the Safety Officer and if one is not present at the field, then such infractions should be reported to any Officer or Board Member who is present**

That's it for now. See you at the field!

**Please join us for the March 7<sup>th</sup> club meeting.** We will have many raffle prizes and the 50/50 could make you very happy \$\$\$.

You never know what might happen, and you don't want to miss it. Meetings start at 7:00 pm. If you want to eat I suggest you arrive no later than 6:15 pm. Location is Deer Valley Airport Restaurant. (7th avenue and Deer Valley Road). Have fun out there!

*Frank Moskowitz*

President

**16<sup>th</sup> Annual Phoenix RC Helicopter Fun Fly**  
**March 16<sup>th</sup>, 17<sup>th</sup>, and 18<sup>th</sup>, 2012**  
**Phoenix, Arizona**  
 Located at the Sun Valley Fliers club field  
 Open flying, Sun thru Mon on Saturday  
 On site vendors and concessions.

AMA Sanctioned Event # 12-0502  
 2012 AMA Local Champion  
 All Propaganda Available  
 All AMA Members receive 25% Discount  
 Night Shows on Saturday night

North facing flightline with 9 stations with approximately 150 foot spacing.  
 Easy access to flight line, toilets and dining.  
 Well known pilots including Ivan Kozlov, Casey Melick are expected.

Sponsored by the Arizona Rotary Modelers Society and the Sun Valley Fliers

Event open at 9 areas Friday with registration.  
 Plans meeting on Sat  
 \$1 parking fee for operators.

For additional information, please visit us at  
<http://www.phoenixheli.com>  
 or contact

C. D. Neil Thomas  
 2018 E. Dubey Ln.  
 Phoenix, AZ 85024  
 Tel: (480) 962-6785  
 E-mail: c.neil@phoenixheli.com

**ONE EIGHTH AIR FORCE**  
**SPRING SCALE FLY-IN**  
**MARCH 31 & APRIL 1, 2012**

REGISTRATION STARTS SATURDAY AT 0730 HRS  
 \$20 PER PHOTOREGISTRATION FEE - AMA REQUIRED  
 AMA SANCTION # 12-0918

**FEATURING:**  
 SATURDAY NIGHT DINNER AT THE FIELD  
 SATURDAY NIGHT R/C FUN AUCTION  
 DEAF'S UNIQUE AWARDS IN MANY CATEGORIES

ALL TYPES OF SCALE MODELS WELCOME

**SUN VALLEY FLIERS CLUB FIELD**  
**CAVE BUTTES PARK IN PHOENIX, AZ**  
**CAVE CREEK RD. AND JOMAX RD.**

MARKS 400 FT. EAST END  
 YOUNG LANE  
 404 54 550000



Sun Valley Fliers Club Meeting Minutes  
Date, February 1, 2012

The meeting was called to order at 7:00 pm by **President Frank Moskowitz**.  
50 members were in attendance.

**Guests:** Debbie Kohlway, Pat Dermody, Gretchen Graber, Sherry Newnham, and Leslee Shell

**New Members:** Curtis Hannay, Colin Marquardt, Dale Newham, and Rich Hanson

**New Solo Pilots:** Richard Hanson and Curtis Hannay

*Gretchen Graber, daughter of the late Ray Graber, told the attendees that her father's planes, tools, and radios will be offered for sale in early March.*

**Secretary's Report:** **Bruce Bretschneider**, Minutes of last meeting accepted as published in the Slow Roll.

**Treasurer's Report:** **Gene Peterson**, 247 paid members out of 324 total. Treasurer's report was accepted as published in the Slow Roll.

**Safety Officer Report:** **Ken Justice** (not present)/**Frank Seminara** (reporting). No accidents or incidents to report.

- **Remain vigilant to prevent injuries and keep our maneuvers & 3D over the dirt.**

**Old Business:** The Helipad conduit and junction boxes have been installed. Only the trenching remains to be done.

**New Business:**

- Club elections will be held at the April meeting.
- A list of the delinquent members will be posted and published in March. Be sure to pay your 2012 dues to avoid being seen on either of these lists.
- Help will be needed in the kitchen for the following events:
  - SVF Pattern – 25-26 February
  - Helicopter – 16, 17, 18 March
  - 1/8<sup>th</sup> Air Force – 31 March – 1 April (**Loren Counce** is the kitchen manager)

**Community Awareness: (John Geyer)**

- The Boy Scouts were out to the field on 28 January for some orientation flying.
- The Cub Scouts are planning a similar event sometime in February or March.

**Door Prize Winners:**

- **Colin Marquardt** - 1 gallon fuel, **Lou Pfeifer IV** - 1 gallon fuel, **Murray Duncan** – (3) hex key sets
- **Ron Norris** – Screwdriver set, **Gary Hedges** – (2) LED flashlights, **Cameron Burns** - (2) LED flashlights, **Pete Dickens** – digital multimeter, **Kenny Rhoads** – digital multimeter, **Greg Frohreich** – digital caliper, **John Wisniewski** – digital caliper

**50/50 Winner: Howard Kennedy won \$70**

**Show & Tell: Ron Petterec** updated the club on the latest news from SIG. The first two containers were sold out before they arrived.

The 1<sup>st</sup> container with Rascal 110, LT40, and Kadet Sr. models arrived before Christmas.

The 2<sup>nd</sup> container arrived with Rascal 110, LT40, Kadet Sr., and EG-42 models.

A 3<sup>rd</sup> container with Rascal 110, LT40, and Kadet Sr. models will arrive in May.

A 4<sup>th</sup> container with Rascal 40, Seniorita Electric, and Waco models will arrive in July.

4 Star 40, 4 Star 50, and Mayhem models will arrive later.

Meeting adjourned at: 7:43

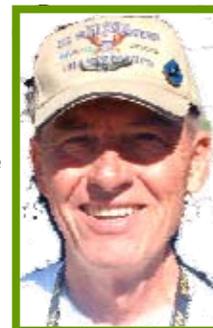
Respectfully submitted,

*Bruce Bretschneider, Secretary*

# \$ TREASURERS REPORT \$ with Gene Peterson

## Treasurer's Report MARCH 2012

Well, it's that time again. Time for annual Report on Who's not renewed for the new year. Check it out, it's in the Slow Roll somewhere. (Bob Hides it). Make sure your name isn't on it. If it is, get in contact with me, if you want to renew or maybe think you did and I show you didn't. You know, that ol game, who's on First? **Call me at 602-579-0925 or email at az49er@cox.net.**



End of the month is the Spring 1/8th Air Force event. Should be a great time. SVF has the responsibility for the Kitchen and **Loren Counce** has graciously accepted the job of being the **Kitchen Manager**. I'm sure lots of you will be able to come out and help for a couple hours on Saturday and/or Sunday. Contact Loren to get on his list. **counclore@cox.net** and Cell Phone (602) 502-5089

If you like just sitting, we will need a few people to do gate duty. We do have to man the gate for the whole event. **Frank Seminara is the "Ground Exec"** for the Event and you can get to **Frank @ mustang51@q.com** and Home Phone (602) 992-0978. Get your reservations in now, so you don't miss out!!! **Regards, Gene Peterson, Treasurer**

### MARCH 2012 SVF Birthday Boys

First name	Last name	Member type	Dob
Oscar	Diaz	Regular	03/01/1949
Jerome	Druen	Regular	03/01/1942
Rich	Temen	Regular	03/01/1951
Troy	Newman	Regular	03/02/1972
Jim	Godziela	Regular	03/03/1965
John	Nolte	Regular	03/06/1961
Gary	Kertson	Senior	03/07/1935
Jeffrey	Bean	Regular	03/08/1947
Michael	Vivian	Senior	03/10/1937
Karl	Kohnke	Senior	03/11/1941
Ken	Moore	Regular	03/11/1960
Ray	Olsen, Jr.	Senior	03/14/1939
Mike	Schmidt	Regular	03/16/1960
Daniel	Wojtak	Regular	03/16/1974
Wallace	Balfour	Senior	03/17/1945
Marty	Knopf	Regular	03/17/1956
Henry	Zyck	Regular	03/19/1943
Leon	McCormick	Senior	03/19/1938
Steve	Harmeyer	Regular	03/19/1975
Dagley	Reeves	Regular	03/20/1954
Robert	Farmer	Regular	03/23/1977
Dan	Blackwell	Regular	03/24/1978
John	Nansen	Senior	03/26/1944
John	Geyer	Regular	03/28/1955
Edward	Ochmann	Senior	03/28/1937
John	Flynn	Senior	03/29/1940
Joseph	Balabon	Senior	03/30/1943
Bob	True	Regular	03/30/1963
Mike	Austin	Regular	03/30/1954
Allen	Palles	Senior	03/30/1941
Ray	Pfeiffer	Senior	03/30/1946
David	Brown	Regular	03/31/1982



## Treasurer Dead Beat List or It Happens to The Best of Us!

Robert Acton  
Randy Archer  
Ryan Archer  
Mike Austin  
Rick Baker  
Jim Ball  
Curt Bennink  
Mark Bernier  
James Brooke  
Peter Clark  
Ryan Cline  
Bob Corley  
Mark Doan  
Jerome Druen  
Darren Dugan  
Greg Evans  
Richard Eyrich  
John Flynn  
Warren Folkerts  
Vern Franklin  
Walter Freese  
Jim Godziela  
Craig Guest



Stephen Hanrahan  
Steve Harmeyer  
Bryce Hatfield  
George Henzel  
Barry Hinrichs  
Harry Horton  
Darrin Jeffries  
Spencer Kleinhans  
Loren Klimchuk  
Karl Kohnke  
Jerry Kolins  
Gary Kurtzman  
Richard Layne  
Tommy Lee  
Thomas Lewandowski  
Perrish Lewin  
Donavan Lewis  
Haim Lichaa  
Richard Litt  
Leon McCormick  
James McGinnis  
Jim McGrath  
Mike Milner

Michael Mriss  
John Neilson  
David Nicholson  
Tighe O'Meara  
Lee Piester  
Gino Pirelli  
Aaron Remer  
Travis Rowe  
Mike Ryan  
Tom Schollmeyer  
Scott Sibson  
Ollie Smidt  
Jim Stabile  
Michael Stankovic  
Bill Stiving  
Rich Temen  
Scott Theobald  
Steve Tillson  
Dan Valentine  
Frank Vass  
Robert Vogel  
Curtis Westra  
Daniel Wojtak





**Academy of Model Aeronautics**  
5161 E. Memorial Dr. Muncie IN 47302 • [www.modelaircraft.org](http://www.modelaircraft.org) • Tel.: (800) 435-9262

## **MEDIA RELEASE**

Date: February 7, 2012  
Contact: Chris Brooks, APR  
765-287-1256, ext. 276  
[chrisb@modelaircraft.org](mailto:chrisb@modelaircraft.org)

### Senate joins House in passing FAA bill, exemption for aeromodeling

M U N C I E – The U.S. Senate late Monday joined the House in passing the first full FAA Reauthorization Bill in more than four years. In passing the FAA Modernization and Reform Act of 2012 both the House and Senate included a provision aimed at protecting model aviation from burdensome regulations. The President is expected to sign the bill into law.

“We are very appreciative of those in Congress who recognize that model aviation hobbyists have been highly successful at governing themselves and being safety conscious over generations,” said Bob Brown, president of the Academy of Model Aeronautics, representing 143,000 aeromodelers. “We are intensely committed to a safe National Airspace System (NAS), and have proven so. This bill is testimony to a common sense approach to model aviation.”

The AMA’s ongoing attempt to protect aeromodeling from what it believes to be unnecessary and over-reaching federal regulations was championed by Sen. James Inhofe (R-OK) who sponsored the amendment. The Academy would like to express its sincere appreciation to the members of Congress and their staffs, with special thanks to John Mica (R-FL), Kay Bailey Hutchinson (R-TX), Jay Rockefeller (D-WV) and Tom Petri (R-WI).

“I can’t stress enough the impact that AMA members have had on getting this amendment passed,” said Brown. “Last year, our members sent 90,000 letters of concern to their Congressional representatives, and the collective voice of aeromodeling was heard loud and clear.”

Rapid technological advancements and the integration of small unmanned aircraft systems, or sUAS, has been a challenge for the FAA, which is responsible for ensuring the safety of the NAS. The AMA has consistently contended that aeromodeling conducted by its members, following the AMA Safety Code, is different from commercial sUAS operations. That distinction lies, in part, with hobbyists operating within a defined area, away from people and property, and not for commercial purposes, among other self-imposed rules.

“This legislation is a very positive step,” said Rich Hanson, AMA’s Government Regulatory Affairs representative. “However, there are still steps to come. We look forward to a cooperative effort with the FAA in ensuring that model aircraft may continue to operate safely within the NAS.”

AMA expects that the FAA will issue its Notice of Proposed Rulemaking (NPRM) for public comment sometime later this spring. The Academy continues to believe that a regulatory approach to model aviation is unnecessary and unwarranted.

The Academy of Model Aeronautics is the nation’s collective voice for aeromodeling, founded in 1936, with 143,000 members in 2,400 clubs in every state, Puerto Rico and Guam. The AMA successfully sanctions more than 2,000 events and competitions each year, and boasts the world’s largest collection of model aviation artifacts and documents in the National Model Aviation Museum situated on the 1,100-acre International Aeromodeling Center in Muncie, Indiana.

**President signs FAA bill, includes protection for model aviation**

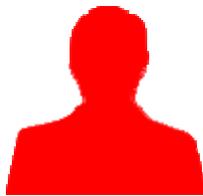
## SVF Elections are Coming in May

Following the guidelines of the SVF By-Laws, the April meeting will be our annual Nominations Meeting in preparation for the Election Meeting in May. This year's nominations committee consists of John Geyer (602-810-1767), Vinnie DeFabbio, and Mike Smith.

**All of the Club Officer positions are up for re-election as are 4 of the 9 Board of Directors positions.** If you are interested in running for any of these positions, or would like to nominate a fellow club member to run for one of them, please contact any of the Nomination Committee members. Nominations will also be taken at the April meeting and the ballot will be published in the May Slow Roll. The 2012 election will be at the May meeting.



**President**



**Vice  
President**



**Secretary**



**Treasurer**



**Board  
Members**

## Field Cleanup

Spring is when most clubs schedule time for cleanup and fix up. As you go through your routine field maintenance, remember that a great many of the insurance claims presented to the AMA are not for injuries directly associated with modeling activities, but are from injuries that occur to people while *on* your flying site. Frequently those injuries happen to young people who are guests at your field. Some claims have been filed by individuals who were injured long after normal flying hours or even illegally trespassing on a flying site.

On your maintenance check list should be a thorough inspection of your site for potential hazards that could cause injury. Think outside the box. Here's a (by no means complete) list that might stimulate your thinking.

Are there any piles of boards, bricks, or branches someone could climb and fall from?

Are there any posts or stakes that could impale someone who falls?

Are there any low-hanging wires or chains that a person, of any height, at any time of day or night, might hit?

Is the location of your site (you might include the GPS location) posted on the field so anyone who called 911 could direct emergency responders to your site?

Are there any frayed electrical wires or uncovered electrical connections?

Are there any potential poisonous or toxic substances that are not under lock and key? Children can find their way into almost anything.

Are seats and tables used by the public substantial enough to handle a load and free of cracks and splinters?

None of us can totally free ourselves of liability, but one of the tenants of a negligence lawsuit is that you *must owe a duty of reasonable care to the person claiming an injury*. If you take the time to document your search for potential hazards, it may help you prove that your group is always attentive to issues of public safety and that you have a history of actions showing your concern for the safety of your members and those who visit your field.

# SVF PILOTS HALL OF PLANES



**Vincent  
DiFabbio**

**T-33**

This is a Jet Model Products T-33 powered by a Jetcat P-120sx gas turbine. A fully moulded kit which needs to be assembled, finished and painted. The T-33 has a 85" wing and is 76" long weighing in at 27.5lbs with no fuel. With gas it is 33.5 lbs ready for takeoff. Radio is a JR 11x, onboard a JR 1221 12ch rx powered by A123 2cell 2300mah batteries. The Jetcat turbine runs on a 3 cell A123 2300mah battery pack. There are JR servos thru out the jet on all surfaces.





# GUNSMOKE 2012 MARCH 2, 3 & 4, 2012



One Eight Air Force Members



The Judges



John and Roxanne



Bill Powers



Mike Peck

# GUNSMOKE 2012



## MIKE PECK PRESENTED THE AWARDS



JAY STEWARD FIRST IN EXPERT



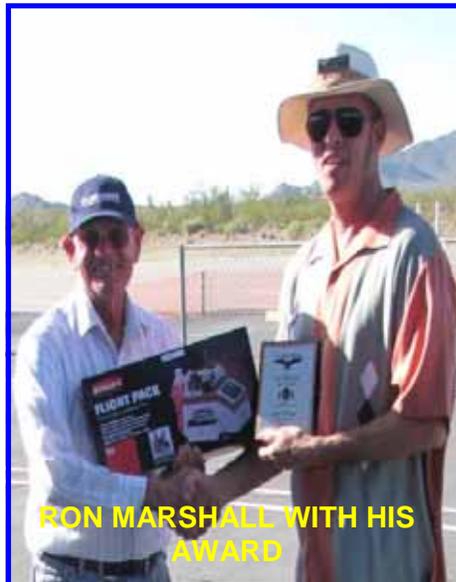
WARD EMIGH RECEIVING HIS AWARD



BOB FREY SECOND IN ADVANCED



JOHN GEYER FIRST PLACE IN OPEN



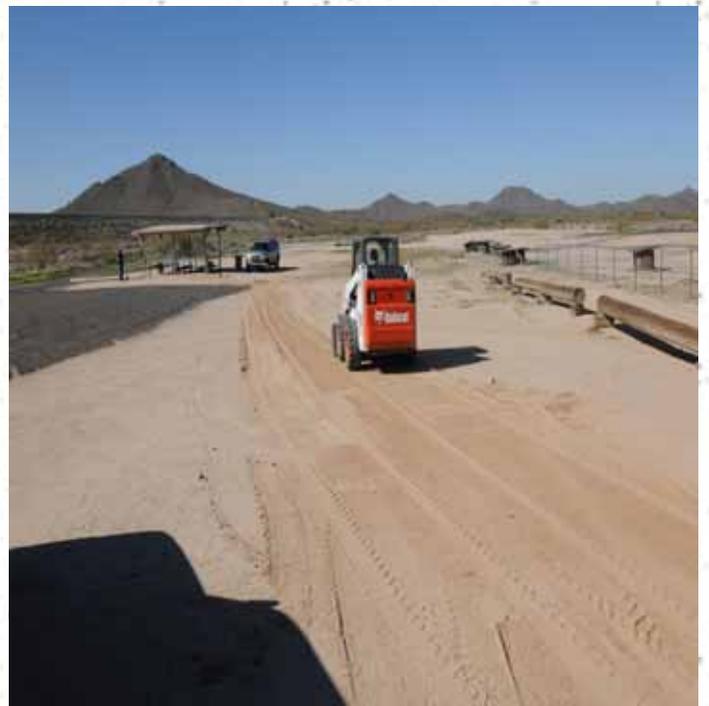
RON MARSHALL WITH HIS AWARD



AUSTIN GOODWING RECEIVING HIS AWARD

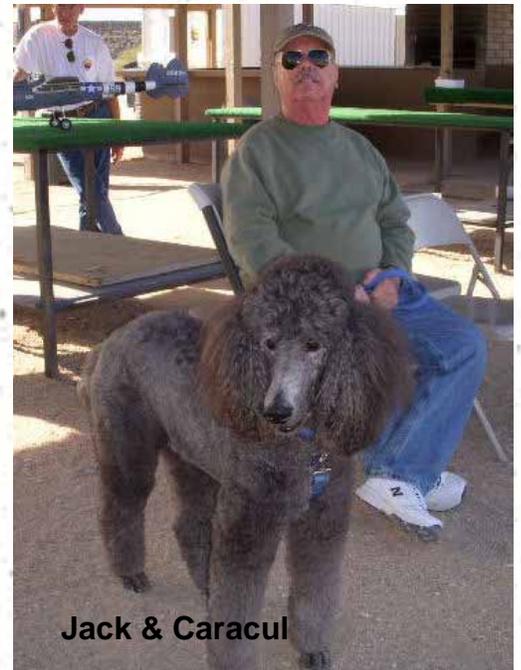
# SVF MEMBERS PAGE

Photos by SVF Members



# SVF MEMBERS PETS

Photos by SVF Members



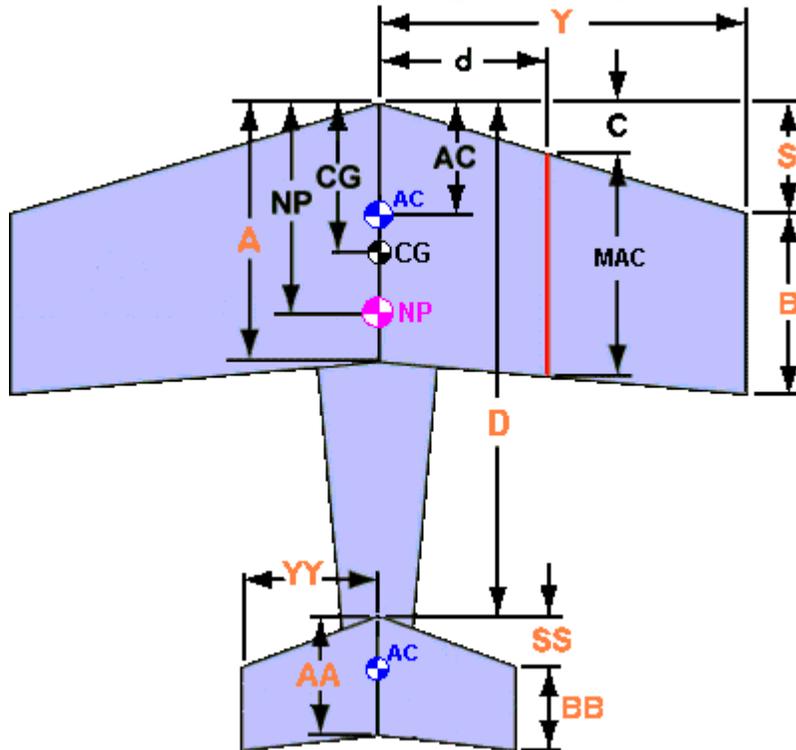
# Aircraft Center of Gravity Calculator

Aerodynamic Center (AC), Mean Aerodynamic Chord (MAC), Center of Gravity (CG), Neutral Point (NP) and Wing

Enter the variables at left using the same units for all entries.

For an aircraft to be stable in pitch, its **CG** must be forward of the Neutral Point **NP** by a safety factor called the **Static Margin**, which is a percentage of the **MAC** (Mean Aerodynamic Chord).

Static Margin should be between 5% and 15% for a good stability.



Low Static Margin gives less static stability but greater elevator authority, whereas a higher Static Margin results in greater static stability but reduces elevator authority.

Too much Static Margin makes the aircraft nose-heavy, which may result in elevator stall at take-off and/or landing.

Whereas a low Static Margin makes the aircraft tail-heavy and susceptible to stall at low speed, e. g. during the landing approach.

\*Choose Low Stabiliser Efficiency if the tail is close to the wing's wake or behind a fat fuselage in disturbed flow.

For wings with two different panels click [here](#)

For wings with three different panels click [here](#)

For wings with four different panels click [here](#)

Find the worksheets at [http://adamone.rchomepage.com/cg\\_calc.htm](http://adamone.rchomepage.com/cg_calc.htm)

## **ON THE SAFE SIDE**

By Jim Tiller, On the Safe Side author

### **Disposing of Batteries**

You can't be in this hobby without using batteries. With the proliferation of electric flying, even more batteries entered our lives. These batteries eventually go bad, so we are faced with how to dispose of them. For many years it was the trash can. Now, with all the exotic combinations, it is more of a hassle. "Green" environmental laws and regulations are also a consideration. In some states, it is illegal to dispose of any kind of battery—even alkaline cells, in the trash.

The easiest and most environmentally friendly way to dispose of all your batteries is to put them in a plastic bag, and when you've collected enough, take them to a battery recycler. Many hardware stores or homes centers have boxes or bins that will take batteries. There are also battery retailers such as Batteries Plus or Interstate Batteries that will take them. There is even a website that will send you a box to put your batteries and other hard-to-dispose-of items such as fluorescent bulbs. When it's full, you just drop it in the nearest FedEx box. ([www.lamprecycling.com/](http://www.lamprecycling.com/))

LiPo cells are the ones that are the biggest concern for most fliers. There is plenty of Internet information about the care and feeding of LiPo batteries. You simply *cannot* charge LiPo batteries without a proper peak charger and a fireproof container. If they overcharge, they build up gases. If those gases produce enough pressure, the cells will rupture energetically (notice I did not write explode), releasing those gases that then combust mixing with air. Most have read and heard the horror stories associated with LiPo batteries.

But this essay is on disposing them. If you simply must dispose of them yourself, here are some simple instructions, but you can search the internet for a more complete set.

Before you dispose of a LiPo battery, you should discharge it. (Don't try to discharge a damaged pack. If it is damaged, skip down to soaking the cells in salt water.) Many LiPo chargers also discharge the same packs. If so, just discharge the battery to the lowest point allowed on your charger (less than 1 volt per cell). Follow the same safety instructions while discharging as you do for charging.

If your charger won't do it, a 12-volt light bulb wired between the poles will do the job for smaller packs of three cells or less. Let the pack discharge an hour or so after the light bulb goes out.

Soak the cells in salt water ( $\frac{1}{2}$  cup of salt per gallon) for a few days. Soaked and discharged LiPos are safe to put in the trash or the recycling bag depending on local regulations.

The biggest environmental concern is the Nickel Cadmium (Ni-Cd) and Nickel Metal Hydrides (NiMH) batteries. First of all, the metallic residue can be recycled and reused. Second, they are toxic waste if they find their way into the landfill and/or our water supply.



**ATTENTION ALL  
SVF MEMBERS**



# SVF MEMBERS PAGE

Photos by SVF Members



## Scale Plans Building for the Novice: Part 5

By Jerry Bates, [www.rcscalebuilder.com](http://www.rcscalebuilder.com)

### Fabric Covering

Open-framed structures are often covered with a fabric material. Check your plans and scale documentations for those areas. The entire fuselage and wings—or only items such as the ailerons, elevators, and rudder—may need to be covered. Some plans call for parts of a model to be sheeted and glassed instead of fabric-covered as on the full-scale aircraft. You can replicate the fabric covering of these glassed areas by applying thin tape. This indicates the location of the ribs that would appear beneath the fabric areas on the full-scale airplane, and lets those areas appear as if they were fabric-covered after you have painted the model.

There are several types of fabric materials and methods used for covering open areas of your model. Non-scale airplanes are sometimes covered with an iron-on plastic film, but I will not review plastic film covering. There are two basic types of fabric covering: chemically adhered fabrics and iron-on fabrics. The airframe must be prepped before applying either.

Fill all depressions and voids. Sand the airframe to provide a smooth surface where it will contact the fabric. Imperfections beneath the fabric, especially high spots, will be visible in the finished surface so make sure everything is level and smooth. Sand with 120-150 grit sandpaper.

**Tips on Covering:** When covering a wing you should do the lower surface first, then the top surface. The same would apply for the stabilizer, elevators, and ailerons. When covering a fuselage, start with the bottom, then the sides, and finish with the top. This is done so the edges of the material will not be seen from the top of the model. If you are not proud of your seam lines, no one will know. After all, how many people walk up to a model and try to look at the bottom?

I normally cut my fabric about 1 inch to 1½ inches larger all around than the size of the item I am covering. This gives you something to hold onto while attaching the fabric to the structure.

After you have attached the fabric to the surface, you will need to trim the material to suit. You do not want to fold that 1 inch of fabric over on the other side. You only need about ¼-inch material overlap along the seams. Using the wing TE as an example, I like to tape a ¼-inch square piece of balsa on the opposite wing surface along the TE. Pull the fabric over the TE and trim along the ¼-inch square balsa with a hobby knife. That method won't work for curved surfaces such as wingtips, but it gives you a general idea of the type of trim for which you are looking.

**Chemically Adhered Fabrics:** Chemically adhered fabrics are those which utilize paints (chemicals) to adhere to the airframe. The most traditional paint used for this procedure is nitrate dope and the most common fabric used is uncoated polyester material. These materials are best used when trying to achieve the effect of a full-scale aircraft with a fabric-and-dope finish.

For the sake of brevity, I will review only the products of one manufacturer, Sig Manufacturing Company, which has been supplying our hobby with building materials for a long time. The combination of Sig Koverall fabric and nitrate dope is the method we will use. Make sure you use nitrate dope and not butyrate dope for this procedure. Nitrate dope is known as “non-taunting dope.” It will not shrink when drying like butyrate dope does. That is important at this point so we do not warp the airframe. When your airframe is ready to cover, give it several coats of nitrate dope. I like to apply three coats, lightly sanding each one a couple of hours after application.

Cut the Koverall to size and lay it over the structure. Work out all the wrinkles and adjust it for an even overhang all around. Begin by applying a coat of nitrate dope to the fabric with a ¾-inch-wide or smaller brush. Start at the edge of the structure and work around the perimeter. Pull out the wrinkles as you apply the dope. Don't worry about the seam lines where the material may have been folded; we will get that out later. The idea is to glue the fabric to the perimeter of the structure with the nitrate dope. The brushing action forces the dope through the fabric and it melts the layers you previously applied to the airframe. The material will be glued to the airframe when the dope dries.

Trim the fabric all around the structure and apply another coat of nitrate dope to the perimeter. Paint the trimmed fabric to the backside of the structure. When that dries, apply one more coat to the

perimeter.

The next step is to apply nitrate dope through the fabric to the remainder of the structure that comes in contact with the fabric. Do that twice. Do not yet apply the dope to the open areas.

We are now ready to tighten the fabric with heat. You can use a clothes iron set on medium and hold it about ½-inch above the fabric. Do not touch the fabric/doped areas. An easier way to do this is to use a heat gun specifically designed for shrinking model aircraft fabrics. These are sold at hobby shops and hobby supply houses. Do not use a hardware store heat gun. Follow the directions that come with the heat gun, and apply heat to the un-doped areas. Do not apply heat directly to the perimeter of the structure. The fabric will become drum-tight.

After you have finished covering you model it is time to paint the entire covered surface with at least two light coats of nitrate dope. Do not apply heavy coats because it will cause the dope to flow through the fabric and collect on the opposite side. You will have a mess if that opposite side is also fabric-covered.

The airframe is now covered, sealed, and ready for paint. You can use virtually any finish over nitrate dope, but I suggest using Sig products at this point. I recommend butyrate dope with a clear topcoat for a nice high-gloss dope finish.

**Iron-on Fabrics:** Let's do it the easy way. Iron-on fabrics have one side coated with a heat-activated adhesive. You basically place it, coated surface down, on the structure and iron it in place. There are several manufacturers of iron-on fabric for models—each with different characteristics. Some will shrink more in one direction than others, and some have adhesive that comes through the fabric if too much heat is applied. Some fabrics come pre-painted so you don't need to paint the model, but I recommend adding a clear topcoat on the prepainted fabrics for additional fuel proofing. It also makes the model easier to clean up after a day at the field.

I like to use Solartex (available from Balsa USA) for smaller models, ailerons, and elevators on glassed models. Solartex is a fine-weave fabric and shrinks evenly in both directions. Once shrunk to fit, it does not loosen like some fabrics. One drawback with Solartex is that dopes tend to react to the color treatment applied to the outer surface. Also, it only comes in 27-inch-wide rolls and that may not be big enough for some large model wings. I recommend Coverite, available from Tower Hobbies, for larger models. It comes in wider rolls.

You will need a hobby sealing iron and heat gun when using iron-on fabrics. They are available from a hobby shop or hobby supply house. Cut the fabric to suit the structure to be covered, and iron the fabric to the perimeter of the structure. Trim it and iron down all edges. Use the heat gun, working from the center of the structure to the edges, to shrink it to suit. Do not apply excessive heat to the perimeter or you will shrink the fabric away from the edge. Next, iron the fabric to the remaining structure beneath it. You are now ready to prime and paint.

Follow the manufacturer's directions regarding heat and application of their materials, and I am sure you will be pleased with the results.

### **Surface Detailing**

This work is done after the model has been primed and sanded to a 320-grit paper finish. Refer to your documentation and decide how much surface detail you want to replicate on your model. Most notable will be the primary panel lines, hatch, and inspection plate openings and covers, raised rivets, flush rivets, fasteners, hinges, etc. Each of these details can be replicated on the model surface through several methods. I will explain how to accomplish each of these details by using only one of the many available techniques simply as a method for the less experienced to get started.

**Panel Lines:** Panel lines are often a subtle surface feature on full-scale airplanes and will show up even less on a model. Aircraft with overlapping panels, such as the Hellcat and SBD, are an exception. Each of these types of panel lines is easily replicated. First, layout the panel lines on your model with a #2 pencil. Press lightly; faint lines will show up fine and can be easily erased should you need to do so.

For flush panel lines, apply 1/16-inch wide Chartpak Pickett graphics tape over the lines. Chartpak tape is available from most drafting supply and arts and graphics stores. You can also find it at Office

Depot. Use a sharp X-Acto knife to cut them to length on the model.

Next, mix up some of the same primer you already used on the model. Using a trim gun, spray several passes over just the tape. Spray a pattern roughly 2 inches wide centered on the panel lines. Repeat this several times, allowing the primer to flash off between coats. After the primer has dried, use 320 wet and dry paper to sand the panel lines and feather into the surrounding primer.

If you are able to sand your model wet without getting water into the interior or uncovered areas on the model, do so. Sand directly over the tape until it is exposed through the primer. Then, sand the recently applied primer on each side of the panel line to feather it into the existing, primed portion of the model. Once you have completed this all over the model, you can remove the Chartpak tape.

Use an X-Acto knife to peel up one end of the tape then, with your fingers, gently peel it back and off. Some residue may be left behind but can be removed with a paper towel moistened with denatured alcohol. Test this first on your primer because you do not want to use something that will dissolve it.

Replicating overlapping panels is done similarly but with different tape. Apply  $\frac{3}{4}$ -inch or 1-inch wide low tack painter's masking tape so one edge represents the panel line. The tape needs to be placed on what will be the lower panel, or the one that fits under the panel adjacent to it. Use primer on the surface as previously instructed. Sand and feather, then remove the tape, and presto—you have instant overlapping panel lines. You may wish to apply two or more layers of tape to indicate a thick panel.

**Hatches and Inspection Plates:** Hatches and inspection plates can easily be replicated using metal duct tape available from hardware stores. Cut the panel to size and stick in place. Press in place using a squeegee fashioned from  $\frac{1}{8}$ -inch balsa. This stuff can even be used to trim a canopy to replicate the framework. Cut the tape into strips and desired widths and apply to the canopy. Mask the canopy and paint.

**Raised Rivets:** Raised rivets can be replicated by using the 'glue drop' method. There are many ways to this. Often, the rivets are applied to the finished, painted model because they dry clear. A disadvantage of this is that the rivets are easily knocked off and they have no protection from the elements. I like to install them under the paint on the primed surface. Painting over them with enamel or heavy paints will enlarge them, so compensate to suit your final finish.

Mix some white glue and water to achieve a consistency of cream. Place the mixture in a shallow container such as a small saucer. Dip a toothpick into the solution then touch it to the model. Experiment with the consistency of the mixture and the sharpness of the point on the end of the toothpick until you are able to get the correct rivet size. The rivets will shrink considerably when dry, so apply them quickly. Several rivets usually can be placed with one dipping of the toothpick.

**Flush Rivets:** Flush rivets can be replicated on the model surface using a piece of brass tubing in a soldering iron. This rivet should be applied to the finished, painted model because it will fill with paint and disappear if placed on the primed surface. Select a piece of brass tubing that closely matches the diameter of the rivet. Sharpen one end of the tubing to produce a sharp edge on the outside diameter. Fit the tubing into a pencil-type soldering iron.

Mark the locations of the rivets on the model. Heat up the soldering iron and press the sharpened brass tubing squarely into the model at the appropriate location.

A screw head can be replicated using the aforementioned method. Use an X-Acto knife with the tip broken off and sharpened to replicate the screwdriver point. Heat up the X-Acto blade and press it into the center of the flush rivet to create a screwdriver point.

**Hinges:** Non-functional piano hinges can be replicated using plastic rod or tubing. Plastruct markets small, plastic shapes for model building. They are available at most hobby shops. Choose a plastic rod or tube that matches the hinge diameter. Mark on a piece of paper the length of the piano hinge segments for the hinge you want to replicate. Place the plastic piece on the paper over the marks. Place an X-Acto knife on the piece at the hinge segment location. Roll the piece with the blade, marking the segment around the piece's diameter. Cut to length and glue to the model.

**Conclusion:** There are many ways to develop this kind of scale detail, and the methods described here are but one way. If you are unfamiliar with how to produce such details, give these methods a try. The longer you use them, the more variances you will make until you are doing it your way.

**VIDEOS and Websites Links**  
Click on to view video, website

**A swarm of nano quadrotors 1:42**

<http://www.break.com/index/swarm-of-nano-quadrotors-2295423>

**RC Plane with camera flies around scenic Germany 7:48**

<http://www.dump.com/2012/02/04/rc-plane-with-camera-flies-around-scenic-germany-video/>

**Commemorative Air Force Mesa, Arizona 02/18/2012 12:07**

<http://www.youtube.com/watch?v=hypUOVkRAdY>

**First flight of 3D printed plane 2:26**

<http://www.youtube.com/watch?v=kRDq4UB9Aig&feature=related>

**UK R/C 6:04**

[http://www.youtube.com/watch\\_popup?v=zYPaq3LuKIA](http://www.youtube.com/watch_popup?v=zYPaq3LuKIA)

**Amazing RC Bird! Original RC Ornithopter! 2:04**

<http://www.youtube.com/watch?v=VVGHX5Vtf0Q>

**Flying people in NYC 2:38**

<http://www.youtube.com/watch?v=dcDN409ZBv4>

**Aerobatic ride 7:30**

[http://www.youtube.com/watch?v=Exph5qfLb18&feature=player\\_embedded#!](http://www.youtube.com/watch?v=Exph5qfLb18&feature=player_embedded#!)

**Half Scale Pfalz D.III 4:06**

<http://www.youtube.com/watch?v=bYWdrDr85rg>

**World Record setting paper airplane :59**

<http://www.youtube.com/watch?v=wedcZp07raE>



**SVF Website Buy & Sell items.**  
<http://sunvalleyfliers.com/classifieds/classifieds.htm>



**My thanks to those who passed this info on.**

# 16<sup>th</sup> Annual Phoenix RC Helicopter Fun Fly

March 16<sup>th</sup>, 17<sup>th</sup>, and 18<sup>th</sup>, 2012

Phoenix, Arizona

Located at the Sun Valley Fliers club field  
Open Flying, Noon time Demos on Saturday  
On site vendors and concessions

AMA Sanctioned Event # 12-0141

2012 AMA Card Required

All Frequencies Available

50/53 MHz show current FCC License

Night flying on Saturday night

North facing flightline with 9 stations with approximate 130 foot spacing.

Easy access to highways, hotels and dining.

Well known pilots including Jason Krause, Danny Mattox are expected

**Sponsored by the Arizona Rotary Modelers Society and the Sun Valley Fliers**

Event opens at 8:00am Friday with registration.

Pilots meeting each day

\$5 parking fee for spectators

For additional information, please visit us at

<http://www.phoenixfunfly.com>

or contact

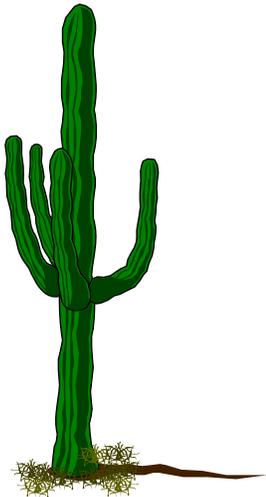
C.D. Eric Stevens

2018 E. Daley Ln.

Phoenix, AZ 85024

Tel. (480) 502-6745

E-mail: [e\\_stevens@cox.net](mailto:e_stevens@cox.net)



# ONE EIGHTH AIR FORCE SPRING SCALE FLY-IN MARCH 31 & APRIL 1, 2012

CD GENE PETERSON 602-579-0925  
11749er@cox.net

COMMANDER HOWARD KENNEDY 602-361-8476  
bushpilot1443@yahoo.com

## FEATURING:



**SATURDAY NIGHT DINNER AT THE FIELD**

**SATURDAY NIGHT R/C FUN AUCTION**

**OEAF'S UNIQUE AWARDS IN MANY CATEGORIES**



REGISTRATION STARTS SATURDAY AT 0730 HRS  
\$20 PER PILOT REGISTRATION FEE - AMA REQUIRED  
AMA SANCTION #12-0316

**ALL TYPES OF SCALE MODELS WELCOME**



**SUN VALLEY FLIERS CLUB FIELD  
CAVE BUTTES PARK IN PHOENIX, AZ  
CAVE CREEK RD. AND JOMAX RD.**

**HARD 400 FT. CEILING!**

**100db LIMIT!**

**NO 3d FLYING!**

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

# Wings Over Arizona 2012



**Sponsored by:**

**The Arizona Model Aviators # 770**

**IMAA GIANT SCALE FLY-IN**

**April 14, 15, 2012**

**Location: Superstition Airpark, Mesa AZ**

- + IMAA Guidelines apply to all aircraft. No exceptions.
  - + 80" Monoplane, 60" Biplane, Planes Can Be True Quarter Scale, Jets Must Have a Combined Wingspan & Length of 140"
    - + Just come, fly and have a good time.
  - + Food will be available Saturday and Sunday for purchase.
    - + Plaques will be awarded for different categories.
      - + Planes Must Fly To Qualify For Any Plaques.
  - + Landing fee \$20 for IMAA members & \$25 for non-IMAA members
    - + Proof of AMA & IMAA membership is required.
  - + Pilot's Parking & Saturday night Pizza Party is included in the Landing Fee.
    - + Public Parking is \$6.00 per car.
    - + No Overnight Camping Allowed At The Airfield.
  - + Trailers may be left overnight. Security will be provided by club members.
    - For Turbines, an AMA Turbine waiver will be required.
  - + IMAA Membership Applications Will Be Available At Registration.
- Contacts: Paul Goldsmith 602-323-7753 or [wiinger@aol.com](mailto:wiinger@aol.com) or John Mangino 480-980-1386 or [manginoaz@cox.net](mailto:manginoaz@cox.net)**
- Arizona Model Aviators web site <http://www.azmodelaviators.com>**



# FRANK'S Hobby House

12008 N. 32 ST. M, T, F. 10-6  
 Th 10-7  
 PHOENIX, AZ. 85028 SAT. 10-5  
 602-992-3495 Closed Wed & Sunday  
 FAX 602-788-3440




8058 N. 19th Ave. 602-995-1755 Phoenix  
 M-F 9:30-8PM, SAT 9:30-6PM 11-5PM  
 4240 West Bell Rd. 602-547-1828 Glendale  
 M-F 9:30-9PM, SAT 9:30-6PM, SUN 11-5PM

**Next month Issue**

*Two events coming up at our field and please support and help in any way. Heli and OEAF.*

**Your photos and articles are welcome.**

*Would you like to be notified when the SLOW ROLL new issue is available? Give Gene your e-mail address.*

[AZ49ER@COX.NET](mailto:AZ49ER@COX.NET)

*Hope you will enjoy it. Bob rcbobsvf@aol.com*

**This Month Issue**

**The Pattern contest results are in this issue. Gunsmoke are ongoing as of this writing. The Helicopter event is coming up as well as the OEAF coming soon.**

**Some good VIDEOS to watch. GOOD stuff in this issue, MORE photos so enjoy! Send those articles and photos in and for the SVF HALL of PLANES.! Remember to ZOOM the PDF**



# THE SLOW ROLL

## Club Officers 2011-2012

**Frank Moskowitz, President**  
**John Geyer, Vice President**  
**Gene Peterson, Treasurer**  
**Bruce Bretschneider, Secretary**

**Walt Freese,**  
**Website Supervisor**

*Please check your  
Membership list for  
Phone numbers.*



## Board of Directors

**Charlie Beverson '10-12**  
**Loren Counce Jr. '10-12**  
**Mike Peck '10-12**  
**Howard Kennedy '10-12**  
**Bob Bayless '11-13**  
**Jim McEwen '11-13**  
**Ron Thomas '11-13**  
**Greg Frohreich '11-13**  
**Eric Stevens '11-13**



*First Class Mail*

**SUN VALLEY FLIERS**  
**P.O. BOX 31816**  
**PHOENIX, AZ. 85046-1816**

To:

[WWW.SUNVALLEYFLIERS.COM](http://WWW.SUNVALLEYFLIERS.COM)



CHARTERED  
#921

**SINCE DECEMBER 1974**