

THE SLOW ROLL

R/C NEWS

BALLOT to vote on By-Laws
4th ANNUAL ELECTRIC
FLY IN NOV. 6 & 7
Help is always needed at the
events, so please offer a
little of your time. Thanks
Scale Master Report

A PUBLICATION OF THE SUN VALLEY FLIERS

Editor: YOUR NAME HERE WWW.SUNVALLEYFLIERS.COM

NOVEMBER 2004

President- Norm Goodnuff Vice President- Walt Freese Treasurer- Gene Peterson Secretary- Dr. Paul Steinberg

THE PRESIDENTS CHANNEL

Norm Goodnuff



THE GATE: I understand that in October there was a problem with the gate being locked and with the Police Department. Please fill me in on the details of this event, because from what I am hearing is that an SVF member did not handle the situation properly. Any time something like this happens please call me on my Cell Ph. 602/228-4592. Events like this can not be tolerated as they can make a mark against SVF with our relationship with the City of Phoenix.

SAFETY: Yes SVF now has a PILOT CALLER GUIDELINE for all members to follow. This Guideline will help keep you and your aircraft safe while observing the safety of others.

INSTRUCTORS: The Club has a few instructors now but there is a need for many more to take the load off the few we have. Instructors are needed not only for beginners but also needed for advanced flying. Any one interested please contact Bob Fry.

SVF NEWSLETTER: Anyone interested in the position of editor for the Slow Roll please contact me and we will get together with Bob Purdy. Many members help put the newsletter together (fold, label, stamp & staple) for the Editor so he does not have to do all the work.

BY-LAW CHANGE: Be sure and vote and if you can't make the Nov. Meeting be sure to send in your Proxy Ballet.

OPEN HOUSE: SVF open house will be December 5th. 8:00 am till noon. Soda water and coffee will be served. This is one of the last requirements for AMA to be a Gold Leader Club.

NEXT SVF MEETING WILL BE NOVEMBER 2nd @ 7:30 P.M.

Ballot to vote now inside to update the by-laws.
Raffle tickets for the RTF GOLD, NEWTIMER will be
also available and raffle off at the ELECTRIC FLY IN.
6 for \$5.00/ \$1.00 ea.

Sun Valley Fliers Club Meeting

Tuesday October 5, 2004

By Paul Steinberg

The meeting was called to order at 7:30 pm by President Norm Goodnuff. There were 32 members in attendance.

Guests: Fred Hepperly

New Members: Brian Chamberlain

New Solo Pilot: Steve Wilson

Our guest & new members were welcomed by President Norm Goodnuff and all members in attendance. Our new solo pilot was not in attendance but did receive a round of applause in absentia!

Secretary's Report: The minutes of Sept. 7th were read and approved as written. The secretary announced that a new supply of caps & tee shirts are in stock and available for sale. In addition, a special order has been made for kids T's & Caps and should be in by mid October. Also, large T's in sizes 4XL and 5XL will arrive with this order. If there are any special requests for items not available, please let Paul know.

Treasurer's Report: Gene Peterson reported that new membership lists were available

Dues notices invoices were handed out to all attendees and the remainder will be mailed. (You see, if you would have attended this meeting you would have had the benefit of receiving your invoice earlier!!)

President's Report: Norm introduced all the club officers to the members, new and old. He reminded those in attendance that they may attend Board meetings as a guest at any time. Board meetings are held the Wed. after the regular meeting at 7:00pm and are located at Paradise Valley Community Center Room D-1, 17402 N 40th St. Phoenix, AZ.

Safety Officer Report: Bob Frey was not in attendance

Old Business:

Gate: After almost a month problem free, the lock has been cut and the main gate damaged several times in the last month. Spare locks are now located on the steel shed door and members were encouraged to use them if the need arises

Newsletter: The Slow Roll is now being published monthly thanks to Bob Purdy who has temporarily agreed to act as the editor. Bob is not planning on continuing in this capacity and so Norm appealed to the membership for someone to come forward and volunteer and assume



responsibility for this essential club function, (there was dead silence in the audience!) Also members were asked to come forward if they knew of a reliable inexpensive printer to help with the production of the SR (again....deep silence!)

Tables: Norm announced that 10 more tables are being made, and should be delivered before the Electric Fly-In in November
US Scalemasters, 25th Anniversary, Kansas: Rick & Kathy Powers were in attendance and Kathy was an official. Rick shared with the membership that there were 14 perfect static scores, something that was unprecedented at this competition. Terry Niesh was the master scale champion and Brian O'Meara, a local 1/8th airforce member won top scale flyer. Jay Steward took 2nd place in Tam Scale and Ken Walther took 2nd place in expert. Rick pointed out that between SVF and the 1/8th airforce, Arizona (Phoenix) had the largest representation at the event! Rick said that the weather was excellent this year!
Fourth Annual Turkey Electric Fly-In benefiting Camp Rainbow will be held on November 6 & 7th. Pilot entry fee will be \$15.00 and parking will be \$5.00 or other donation for the the Camp Fund. **Howard Kennedy** who once again is the CD for this event appealed to all members for volunteers, kitchen, gate, parking, crowd control etc. Please contact **Howard at 602-361-8475 or at kenhow@aol.com if you can help out at this very worthwhile event.**

Bob Purdy informed the members that this year's raffle prize is a Ready to Fly "New Timer" (that was present at the meeting and on display) Tickets are \$1.00 or 6 for \$5.00.

There will be a **field clean-up** the morning of **October 30th** and members were informed that flying will be suspended for a few hours during the field clean-up process. **Volunteers are needed to help with the clean-up** (again...silence)

By Law Changes: Norm discussed changes in the By Laws. Article 2 Section 1 was discussed with the new proposed changes that the Board approved. The membership was reminded that the changes have been published in the Sept & October editions of the Slow Roll and will be brought to the members for a formal vote at the regular club meeting on November 2nd. Proxy votes will be accepted and ballots have been published in the newsletter but must arrive to the club by mail prior to the November meeting. Norm once again explained the rationale for the changes, most notably to facilitate the procedure for changing membership dues and reminded members that there will be no dues increase this year! Norm asked if there was any discussion and there was none.

Caller Guidelines: Norm read the Caller Guidelines that were published in the October Slow Roll. There was some discussion of this by the membership; most was very favorable. It was suggested that the guidelines be piloted first before they are made a requirement (pilots will have a piloting caller... interesting!)

New Business:

New Tips & Tricks Column: John Neilson is publishing a column in the Slow Roll that will outline all the hundreds of little tricks and time savers we have learned over the years and that are of a great help. John asked members to send him their ideas. The member who submits the most creative suggestion will win a new SVF T-Shirt and badge! You can contact him at: neilsonsvf@cox.net

Waste Fuel: Norm asked members to be mindful when fueling their planes on the new tables. The carpet on some tables is becoming stained already and this attracts dirt & crud. He appealed to members to use a waste fuel capture system that can easily be made out of an old spice bottle and some brass tubing.

In addition, the plastic bottoms of plastic fuel jugs will be kept under all tables. This can be used as well to capture waste fuel that can then be reused or dumped on the gravel.

Upcoming Events

18th Annual London Bridge Seaplane Classic, Windsor Beach, Lake Havasu State Park, November 12-14th, 2004
<http://www.havasufloatfly.com>

Tucson Aerobatic Shootout, Tucson Modelplex Park
October 21-24th

One Eighth Airforce Fly-In: AMPS Field, October 16-17th
President's Raffle: Feeling lucky? Try your chance to win a Decathlon ARF or a Raptor 30 size Heli. Tickets will be sold at the next club meeting in November

Door Prizes: (there were many & if you attend these meetings, chances are very good that you will be a lucky winner like **Bernie Frank, Walt Freese, Avery, Dave Linne and Ricky Powers** who were 3at this meeting!) In an unprecedented manner, a gallon of fuel was auctioned off and the highest bidder was **John Neilson!**
50/50 Draw: \$44.00 Bill Power (didn't he win this before?)
Show & Tell: **Rick Powers:** Gypsy EP, by E-Flight, \$79.88, Kyosho EP Caliber M24 RTF Heli, complete package with radio, battery, charger and training gear, \$350.00; Model Fly Beaver with Floats, \$269.00; H9 Miss America 60 with pre-installed IMPROVED STRONGER REINFORCED mechanical retracts that have adjustable locks, \$255.00; Evolution Engine 100, bearings \$169.0
Meeting adjourned at 8:30 pm

TUCSON SHOOTOUT

We wish all of the SVF members that have entered the SHOOTOUT for the October 21 to the 24th event, the very best in obtaining the top scores. Good luck Gentlemen.

Editor note: The Slow Roll will be finished and ready for the printers before the finish of the Shootout. Sorry we can not provide you with the scores.

Help Wanted

Looking for an intelligent/average person that enjoys everything about radio control flying.

Your duties will be keeping in touch with 300 plus people. You will be notifying them of any changes as to building, repairing, and upcoming events.

You will be in contact with the President and Board members.

Excellent benefits and a great health benefit for you, you will be enjoying the great outdoors.

Very little typing skills required and some computer knowledge needed. You will be trained by an excellent staff.

Interested, then contact Norm Goodnuff for the position of newsletter editor.

One day the pilot of a Cherokee 180 was told by the tower to hold short of the active runway while a DC-8 landed. The DC-8 landed, rolled out, turned around, and taxied back past the Cherokee. Some quick-witted comedian in the DC-8 crew got on the radio and said, "What a cute little plane. Did you make it all by yourself?"

The Cherokee pilot, not about to let the insult go by, came back with a real zinger: "I made it out of DC-8 parts. Another landing like yours and I'll have enough parts for another one."

Changing Attitudes

by Robert A. Morris Lt. Col. USAF Ret., SVF

When flying scale W.W.II fighter planes, some RC flyers will takeoff and land using an exaggerated tail high attitude—a significant deviation from full scale flying.¹ Most RC scale flyers prefer to look realistic throughout a flight—and each flight always starts with a takeoff.

The following is a brief and simplified explanation of how and why the prototype fighter's takeoff attitude was established. With that appreciation the RC flyer should be able to replicate the takeoff and will discover that a scale like takeoff is easier to accomplish than a "tail high" takeoff.

The takeoff attitude calculation starts when the design engineers decide on a *mission design point*. For a fighter plane a ruling criteria will be how fast it will fly in level flight at a certain weight and altitude. For example: 400 MPH.

Early in the design process the wing has gone through a series of wind tunnel tests and the engineers know at what angle of attack the wing will develop lift equal to the weight of their fighter at its design point. The angle of attack (AoA) is the angle at which the wing *meets the air*. AoA has nothing to do with the angle the wing is attached to the fuselage, the angle between the wing and horizontal stabilizer, the direction the airplane is pointed with respect the ground, or how fast it flies.

Additionally, there is a fuselage/ tail group angle with respect to the air stream at which the lowest fuselage drag is generated. Tail up a little bit: More drag; down a bit: More drag.

The wing is positioned on the fuselage so that the wing is at the design point AoA. Thus the fuselage and wing angles are both optimum for 400 MPH.

Pilots adjust the AoA for each condition of flight. For example: To maintain level flight while slowing down, the lift lost because of less velocity is compensated for by increasing the AoA. (The AoA is controlled by the elevator and nothing else). This balancing act can continue until the wing reaches the stall AoA (that is, when an increase in AoA produces *less* lift.)

If a takeoff is attempted by lifting the tail up to the design point AoA and then held there, the plane would have to exceed 400 MPH to takeoff. At some point before the end of the runway the pilot must lower the tail to obtain a takeoff AoA, and then off she goes with an impressive initial zoom—air show style.

Now let's say it's 1944 and the P-51s of the 354th at Boxted, Essex are taking off— full fuel, fuselage tank with all 85 Gal., two 75 gal. drop tanks, and six 50 cal. Brownings with nine yards of ammo. The runway is long enough if everything goes right. The elevator trim is set for "takeoff" so that the control feel is pleasant, and precise pitch control is obtainable. About halfway down the runway the tail comes up a little bit and that attitude is held. Near the end of the runway the 51 lifts off—a real world precision maneuver.

When the main wheels are on the runway, the aircraft attitude—with respect to the runway—is directly related to the AoA. The exact value of the takeoff attitude/

AoA has been flight tested to perfection, and is the same for any takeoff weight. If the attitude is right you will always become airborne at the correct speed and in the shortest distance. The same aerodynamic imperative prevails when landing. Touching down at the right AoA (tail low) will result in the slowest safe landing speed, the shortest landing roll, and the least wear on the brakes and tires.

From the cockpit of the ubiquitous AT-6 the look and feel of the takeoff attitude is remarkably like a Mustang. So a W.W.II pilot's first P-51 takeoff was undoubtedly exciting but not difficult.

RC flyers can easily achieve the same look. If the landing gear of your RC P-51 is true to scale, the you need only lift the tail so that the bottom of the tail wheel is slightly more than one wheel diameter above the surface. The takeoff will be easy to execute and you will garner more realism points.

1. This discussion is limited to conventional landing gear W.W. II pursuit/fighters from, say the P-35 forward.

HINTS & TIPS

BY John Neilson, SVF

This month we have a couple of items that have been brought to me verbally, although I have suggested you can submit by email or phone.

Our first item is regarding Lithium Polymer Batteries, aka, Li-Poly. As most of the people using them is aware, they have been known to have a potential of overheating, exploding and causing sever damage to work shops, airplanes and vehicles! Most damage has been caused by not properly charging or perhaps not observing the correct procedure as recommended by the manufacturer. Here is a suggestion by our member, John Wanner. While charging at home or from your vehicle, place the pack in a coffee can or a metal container, preferably a large one. In the event you should be subjected to this problem, they will be contained and lessen the chance of a catastrophic experience!

John had a second suggestion and this is regarding our newly carpeted tables. Some of our members will fuel their plane on the tables and other's on the ground. If you prefer to use the tables, he suggests you have some kind of recovery system when fueling is complete. Some use an old tank attached to the overflow and recycle back to their container. Using an electric pump you could no doubt recover 2oz per fill and that could give you a couple more flights per gal. Regardless of how you fill, the point is to stop the fuel from overflowing on the tables! Thanks John! I'm sure everyone wants to keep them as oil free as possible.

ARF'S! We all are inclined to take the quick way to flying and I have seen the purist succumb for less time in the shop. They are less costly than purchasing plans, wood, hardware, covering and the story goes on. But, keep in mind they are made on a production line by people. Here's the point and suggestion made by several people. You **MUST** check as many glue joints and the overall construction as is visible. One member had the motor fall out while flying on the first flight, the firewall had come loose! Yes, crashed without recourse to the manufacturer! While on this subject, here is a tip from our member, Geronimo Vidales and might

of eliminated our previous members problem. You say, "I can't get to the firewall inside the fuselage". Try this, take a piece of 1/4 square wood or a dowel, attach with tape a length of fuel tubing extending it beyond your pointer stick, fill the end with the glue of your choice, position it where you want, blow the glue into that spot and your job is complete! Of course, you can clip the end of your tubing, re-tape it and go to the next spot! Why didn't I think of that!

Simple little things that we all have done can be of help to all the members and this is the purpose of this column...I look forward to your input.

neilsonsvf@cox.net or 602-482-1158

Scale Masters Championships Report

By Mike Peck, SVF

On September 23rd – 26th the U.S. Scale Masters Championships event was held in Gardner, Kansas, which is about 25 miles South of Kansas City. Sun Valley Fliers members **Jay Steward, Austin Goodwin, Bob Frey, Kent Walters, Rick & RJ Powers**, and I attended the event. Jay and his brother Jack competed in team scale with their Nieuport 28, Kent competed in Expert class with his Douglas Dauntless SBD-3, and Bob paired up in team scale with a builder from Colorado, Dave Gianakos, who fielded an Aerotech P-47D Thunderbolt.

Regrettably, Austin Goodwin had lost his Expert class airplane, an F6F Hellcat, in practice two weeks prior to the Championships at the AMA field, due to a structural failure, and Bob Frey lost his Expert class airplane, also an F6F Hellcat, less than one week before the Championships at our field due to a servo failure. Another pilot from the South had to scratch from the event after he crashed his F6F Hellcat a week before the event, and ironically, the last F6F Hellcat that made it to the Masters Championships was flown and crashed in the first round. This was not a good year for Hellcats!

The officers and club members of the R/C Barnstormers of Hillsdale, KS were the 'hosts with most' this year, and they put on a premier Masters event. The weather could not have been more favorable for r/c flying if it had been special-ordered and paid for. Cool mornings, warm sunny afternoons, blue skies and light winds prevailed for all official flight rounds on Friday, Saturday, and Sunday.

The community of Gardner, Kansas really rolled out the red carpet to welcome the Scale Masters. The Gardner municipal airport was closed to all full-size aircraft traffic and was turned into a giant r/c flying field with both paved asphalt and manicured grass runways side-by-side. The Gardner Mayor attended the Thursday evening hanger party and gave an enthusiastic welcoming speech to the pilots on behalf of the City and all of its citizens. The local bank had 'Welcome Scale Masters' on their marquee and local stores on the main drag were also reported to have had welcome signs in their windows. The Gardner police provided officers at the airport throughout the event, and the Gardner fire department stationed a manned pumper at the airport to insure a safe and secure environment for the event. This was truly a community event, which the towns' people amply supported by their attendance on flying days as spectators. They sat in the

the bleachers and clapped & cheered appreciatively whenever a pilot performed a noteworthy maneuver, or greased in a particularly pretty landing. I think we all learned a lot about Midwestern hospitality from the great people in and around Gardner, Kansas.

You will all see the results of the US Scale Masters Championships event in the model magazines in a couple of months, but let me at least tell you how the Sun Valley Fliers members did:

Austin Goodwin was completely surprised to receive the coveted **Harris Lee Lifetime Achievement** award and the very large trophy that goes with it, for his years of service with the Gunsmoke Scale Masters Qualifier event, as well as for the outstanding job he did as the contest director of the 2002 US Scale Masters Championships in Mesa.

Kent Walters earned a well-deserved **2nd place** in the **Expert** class with his Dauntless.

Jay Steward and his brother Jack earned a hard-fought **2nd place** in the **Team Scale** class and additionally won the **Best World War 1 Aircraft** award for their pristine Nieuport 28 model.

Bob Frey and Dave Gianakos placed a very respectable **12th place** in **Team Scale** considering Bob only had five flights on the model prior to competing with it in the Masters. It was a great event with a total of 49 entrants that actually flew, and as you would suspect, there were many, many very well known and accomplished scale pilots from around the country that went to Kansas to compete against each other in the Expert and Team classes. Congratulations to our Sun Valley Fliers members that represented our club so well in this best-of-the-best scale contest environment.

Masking painted areas

Ever had paint run under masking tape, giving your model a jagged edge? Me too. Then, I discovered a method of masking off those lines. First, use good quality masking tape. Go to the paint department of a home improvement store and look for high grade painters masking tape. This is a plastic backed tape with excellent edges that produce a very sharp color demarcation line.

Next, clean the area to be painted with rubbing alcohol to remove any finger prints, fuel residue, banana pudding, etc., that may be stuck on your model. Mask off the area to be painted. Make sure the edges of the tape are stuck firmly. Then, spray the area with the same color you have hidden with the masking tape. The paint seals the edges to prevent paint from creeping under them. In the unlikely event that paint does seep under the edge, it will be the same color as the masked area and virtually invisible.

When that has dried, continue painting with the desired color of the stripe or panel you have chosen. When dry, remove the tape by pulling it back against itself to lessen the chance of damaging the finish. Clean any tape residue off with alcohol and you're finished.

from the Whitehaven Radio Control Club, via WIRCS Touch & Go, Whidbey Island Radio Control Society, Mike Mosbrooker, editor, Oak Harbor WA

Have a suggestion or grip for the Slow Roll? This space is for you. Please send your CD's/letters/etc., ASAP.

Doin it Safely

By Bob Fry, SVF

By now I'm sure most club members are aware of the growing interest within SVF in safety procedures for flying our models. Part of this is due to the AMA's new requirement for all clubs to instate a safety officer by the end of this year, and follow that up with standard safety procedures. In addition, it just makes good sense in the wake of some well documented, recent accidents to take a look at how we approach safety issues and maybe firm things up a bit.

I guess I drew the short straw, cause I'm the newly appointed SVF Safety Officer. By way of introductions, I'm Bob Frey. I've been flying R/C models since 1971 with a primary interest over the years in scale. SVF's founding father, Tom Gadwa taught me to fly and I am one of SVF's charter members and a past president.

In approaching the task of establishing a safety program for SVF, I thought about how the newspapers approach a good story, having worked at the Arizona Republic for over 20 years. Who, what when why where and how. Many of those are obvious, but the how is the meat of the issue. We drafted a 12-step plan for implementing the safety program, and your board and I are currently on the 5 Th step. One of the early steps was to get as much input from the members as possible, and use it to develop a 'Concern/Possible Action' list. This is now done in its initial form. If for some reason you have not had an opportunity to pass along your concerns and/or suggestions for better safety please get a hold of me at the phone or email below. I'll be glad to add anyone's issues.

Highlights of items on the 'Concern/Possible Action' list include: Consistent use of a pit helper/caller, change in the proximity of pilots – put them close together to foster better communications, consistent use of the impound/frequency pins, addition of large safety signage at the field, expansion of the instructor staff along with uniform training guidelines, implementing a large safety team to be able to be in attendance at the field most of the time. Flight operation guidelines for the various types of models we fly, that are not always compatible in terms of flight patterns maneuvers, etc.

All of the concerns and possible actions are currently being reviewed by the board. Presentation to the general membership will take place later.

I've been pleased with all of the input I've had from club members. It seems when I go to the field there is a lot of talk about it, but I feel like there's more out there, so please let me know you're thoughts on this important issue. I'm also very interested in making our safety guidelines easy to swallow for the majority of our members. Considering the potential risk involved in models banging into people or property, it will behoove all of us to be aware of the guidelines and strive to follow them once they're established.

One last item. I'm interested in recruiting folks to participate on the safety team. I envision this as light duty. Mostly there will be a need to understand all of the new guidelines we'll be implementing later in the year. Please get in touch with me if you have an interest in that.

Thanks in advance for all your support.
freydell@cox .net

COMMUNICATION:

Getting young people involved
By SCOTT RHOADES

Just about every Radio Control (RC) related publication, Web site, and organization has discussed efforts to introduce the youngsters to the sport of flying RC airplanes. It doesn't take rocket science to figure out that a majority of the current participants in RC are, shall we say, old. As cool as RC is, the young folks just don't feel comfortable hanging out with geezers. We need to close the generation gap and one way to do that is by communicating on their level. By speaking their language, the youngsters will feel more comfortable and will want to come out to the field more often to learn about RC. So, I've compiled a few of the latest slang terms, along with definitions and a few examples.

Yo: Word used as an attention getter to start conversation. It lets everyone know the speaker is about to say something. Example: Yo! Your plane is on fire.

Dawg: (dog) Good friend. Example: The people in my club are my dawgs.

Whazzup: Hello. What is going on? It is a blend of the older slang term "what's up" Example: Whazzup dawg?

Whack: 1) Awful; 2) Crazy. Example: 1. Your airplane just crashed. That's whack. 2) Did you see what he did? That's whack.

Off the hook: Very good, great, outstanding. Variations are off the hingers, off the fa-sheezy, off the clock. Example: Yo dawg, that flyin' maneuver was off the hook!

(Note: It's important to point out that in words ending with "-ing," the "-g" is always silent. Examples: flyin', landin')

Dag: Damn, shucks. Example: Dag, I stuck my finger in the prop.

Fo-shizzle: For sure (definitely). Example: I'm ready to get this bird airborne, fo-shizzle!

My bad: Admission of guilt. Example: I turned on my transmitter and crashed your airplane. My bad!

Aalight: (pronounced aw-ight) Used in times of intense emotion. Example: Yo I'm bringin' this plane in, aalight!

Know what I'm sayin'?: This is only a rhetorical question; however, it should be used to finish many sentences or conversations. Example: blah, blah ... know what I'm sayin'?

Now you've been introduced to some basic slang that will allow you to communicate with the youngsters who come to the field. It will take some practice to become proficient with this lingo so I suggest practicing with grandchildren, nieces, nephews, or even unknown youths at the local mall. Fo-shizzle! Know what I'm sayin'?

from Silver Lining, Holly Cloud Hoppers, Scott Rhoades, editor, Holly MI

**ARTICLES FOR THE DECEMBER
SLOW ROLL ARE DUE BEFORE
NOVEMBER 20, 2004**





FOURTH ANNUAL ELECTRIC TURKEY

FLY IN

ALL PROCEEDS GO TO CAMP RAINBOW

NOV 6 AND 7 2004

HOSTED BY SUN VALLEY FLIERS
AT CAVE BUTTES PARK PHOENIX, AZ

OPEN TO ALL ELECTRIC POWERED AIRCRAFT
NIGHT FLYING SCHEDULED FOR SATURDAY
PILOT'S MERCHANDISE RAFFLE BOTH DAYS

CAMPING AVAILABLE--NO HOOKUPS

HELP US RAISE MONEY TO HELP

CHILDREN WITH CANCER

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PILOT FEE www.sunvalleyfliers.com
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KENHOW@AOL.COM

MIXING EPOXY:

What to do when epoxy doesn't harden properly

Epoxy is one of the best modeling materials available. It's useful as an adhesive for wetting out fiberglass cloth, as a filler, and as a finishing material. It can be thinned or thickened for a variety of purposes. But, even though it is useful, epoxy also can be a pain when it doesn't harden properly. There are two important issues when dealing with epoxy: proportioning and mixing.

Of these two, mixing is the most critical. Misproportioning the hardener to the epoxy generally leads to slow hardening, but lack of proper mixing can lead to permanently sticky epoxy. One hundred quick, hard strokes are recommended when mixing any amount of epoxy. Count them to make sure that your mixing is adequate.

Always mix your epoxy before putting in any additives. Both thinning or thickening agents can keep epoxy from mixing properly. Give the epoxy 100 strokes first and then put in the additive.

Thinning

Epoxy can be thinned using acetone or denatured alcohol. Either of these can be added to make it more watery. A mix of up to 50% doesn't seem to have any effect on the final strength of the epoxy. Thinning the epoxy will slow down the curing time and make it wet out fiberglass and carbon fiber better. Thinned epoxy also can be wiped onto balsa or obechi as a finish.

Thickening

Epoxy can be thickened by adding almost any inert fine-grained solid, from sand to cotton fiber. Modelers usually use microballoons for thickening epoxy since they are readily available and add little weight. Thickened epoxy can be used to make fillets or to fill gaps.

5 minutes, 15 minutes, 30 minutes, more?

Epoxy comes in formulations for different curing times. The times listed on the package are strictly nominal and generally refer to curing time. Five-minute epoxy does not give you five minutes of working time. At best, you will get 20 seconds of working time in which to place 5-minute epoxy before it starts to "hit."

Thirty-minute epoxy gives you around one to three minutes before it starts to hit. These times will vary with temperature, mix proportions, and proper mixing, but they are good reference points. In general, 5-minute epoxy is only for spot gluing. It is great for small, quick jobs but not for involved tasks. A general rule of thumb is the working time for epoxy (after 100 strokes of mixing) is about 10% of the time listed on the package. Keep in mind that epoxy mixed and left in the cup will hit faster than epoxy that is spread out immediately.

Clean up

Epoxy on the hands can be cleaned with acetone, denatured alcohol, or vinegar. Vinegar is the most desirable of these three but it smells. I find that soft soap, when used straight and rubbed patiently and thoroughly on the hands, removes epoxy residue in a completely satisfactory fashion. Try it; you'll like it. The best thing to do is wear latex gloves while working with epoxy and toss them when you're done. It avoids any possible allergic reaction and eliminates the clean-up problem.

from the newsletter of the, R/C World Flyers, Al Sorensen, editor, Orlando FL

HANGAR SALE

At every club meeting. Got something in R/C you would like to sell, bring it to the meeting.

**THERE WILL BE NO SLOW ROLL
For January 2005.**

Sun Valley Fliers Mail In/Proxy Ballot For Absentee Voting on Proposed By-Laws Changes For November 2, 2004 Club Vote

Mark only 1 Choice:

I vote TO ADOPT the proposed changes to Article II, Section 1, Membership Dues, of the Sun Valley Fliers By-Laws, as proposed by the SVF Board of Directors and published in the September and October editions of the Slow Roll.

I vote AGAINST the proposed changes to Article II, Section 1, Membership Dues, of the Sun Valley Fliers By-Laws.

Printed Name

AMA Number

Signature

Date

Mail To: Sun Valley Fliers, PO Box 31816, Phoenix, AZ 85046-1816