



# THE SLOW ROLL



CHARTERED #921  
Since DEC. 1974



**IMA Chapter 782**

**President—Frank Moskowitz**  
**Vice President—Tony Quist**  
**Treasurer—Gene Peterson**  
**Secretary—Rusty Fried**

**Editor—Bob Purdy**  
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## SEPTEMBER 2010

*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 Marty Jones.....SVF Prez Raffle .....Gas Engines for Newbies.....  
.....AZ Towns Answers...B-24 Crash photos,,D10 VP Statement.....Prez report.....Minutes..... B'Days  
& **Treasurer Report** .....SVF Members photos.....Videos.....Frank's Hobby.....**Much more, enjoy!**

SVF Dustin Young Sbach 342



# THE PRESIDENTS CHANNEL

**FRANK MOSKOWITZ**

SEPTEMBER 2010 SLOW ROLL PRESIDENTS LETTER



Welcome to the September 2010 Slow Roll. The weather will soon be cooling down and that means more of us flying at the field. More pilots mean potentially more safety rules violated. So you might want to brush up on your safety and field rules. This leads me to my first bit of news; that the board has appointed three new safety officers. **Lou Pfeiffer is our official board elected safety officer. Along with Lou we decided to have Karl Kohnke and Frank Seminera as additional safety officers.** This should allow for pretty good coverage during various times of the week. Remember from last month's letter, that the goal is to keep you safe from injuries. We all tend to get lax and sometimes need a gentle reminder about the safe way to have fun flying. Please welcome our new safety officers when you see them and support them at the field in their sometimes frustrating tasks.

My second bit of news is that the board has decided to increase the annual dues for next year by \$25. We have been surviving on the \$50.00 annual renewal for many years now and still managed to keep the field in excellent condition. Maintenance costs and field improvement costs are increasing year by year. **Next year's dues will be \$75 for regular membership renewal and \$50 for seniors. The \$75 initiation fee for new members will remain unchanged.** This is a small price to pay to be a member of the best flying club in Arizona. I think you will agree.

**My last item is the Presidents Raffle. We will be holding the raffle at the next club meeting on Wednesday September 1<sup>st</sup>. You will be able to purchase tickets at that meeting. Purchase 25 tickets for \$20 and you could win one of the three great airplanes. There will be three winners drawn.**

That's if for this month.

Remember our next meeting is **Wednesday September 1<sup>st</sup> 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. (7<sup>th</sup> avenue and Deer Valley Road). Lots of great food and a smoke free environment.** The Club meetings get better every month. We will always have more than one raffle prize and the 50/50 could make you very happy \$\$\$\$. You never know what might happen, and you don't want to miss it.

Have fun out there!

*Frank Moskowitz*

President

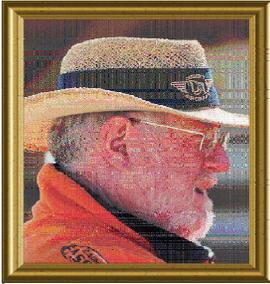


**Presidents Raffle**  
Hosted By SVF

★ Win One of These Three Planes ★  
★ All New — In The Box ★  
★ \$5 gets you 5 tickets ★  
★ \$20 gets you 25 tickets ★  
Tickets can be purchased from any Board Officer

SVF Clubhouse ARF, Table 50000 ARF, 7-08 Table 50F

**SVF MEETING SEPTEMBER 1, 2010 AT  
7:00 PM @ D V AIRPORT & RAFFLE DRAWING!**



**Sun Valley Fliers Club Meeting Minutes  
Date August 4, 2010**

The meeting was called to order at 7:03 pm by Vice President Tony Quist. There were 39 members in attendance.

**Frank Moskowitz was out of town.**

**Editor: SVF member Bob Veazey passed away on August 14. Our best wishes to the family.**

**Guests: none**

**New Members: Welcome to Archie Dicksion and his grandson Luke.**

**New Solo Pilot: none**

**Secretary's Report: Voted and approved as published.**

**Treasurer's Report: Gene Peterson; Voted and approved.  
As of this meeting we have 330 paid members.**

**Safety Officer Report: Lou Pfeifer and Karl Kohnke have volunteered to be our safety officer of record. The SVF board will make the final decision.**

**Old Business:**

- 1. Our new lawn service did a good job doing our landscaping. It will be done four times a year. The new service is doing it for the same price as what Ron Long was charging.**
- 2. The SVF will not do a Jet rally this fall.**
- 3. The fall electric fly will be held November 13, 2010. John Geyer will be the Contest Director.**
- 4. The SVF board will consider raising the yearly dues starting the New Year 2011.**
- 5. The new potty and trash collection company is costing the club a little less per month.**

**New Business**

- 1. The weather station is having a problem and needs a new anemometer; the station will be up soon.**
- 2. Frank's Hobby House will open soon, Frank thinks he will reopen early September.**

**Door Prize Winners: Straw Hat, Bill, Hat, Ron Thomas, Fuel, Paul DeLawder, Fuel, Jim Ball, Fuel Ramey Hays, Fuel, Gene Peterson, Shirt, Peter Dickinson, Shirt, Loren Counce, Shirt, Luke Dicksion, Shirt, Bob Purdy**

**50/50 Drawing Winner: The Winner Dan Wojtak won \$55.00.**

**Show & Tell: None**

**Meeting adjourned at: 7:27pm.**

*Rusty Fried, Secretary*

# \$ TREASURERS REPORT \$

with *Gene Peterson*

## TREASURERS REPORT SEPTEMBER 2010



Well, it's kinda fall I guess. Footballs going again, schools ditto, still a little hot and muggy but we're close.....

Just wanted to remind everyone of a couple things, so you don't get surprised when they happen. The board has discussed at much length the need to raise the dues for our club. We will in the near future have to do major work on our runway and probably have to do some more work on the entrance road. While we do have savings to accomplish this, it would be depleted once the work is done. **So, basically we're raising the dues just little to replenish our backup money for future needs. Seniors will go to \$50 and Regular will go to \$75. Juniors are still free. Dues notices will go our early October so don't be surprised. Thanks for your support in this. This raise just puts us at a par with other clubs in the valley, in case you're wondering.**

More chairs have been purchased for the field and should be there by now. We're trying to get a few more of the busted and "shouldn't be used" chairs out for some safer ones.

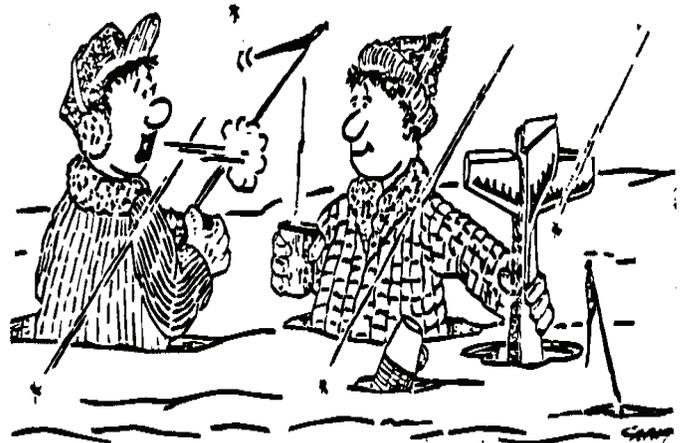
**New Speed limit signs should be up or if not will be soon. We have to put one more pole in. Speed limit will be set to 10 miles per hour. We hope you will try and maintain that. At 10, almost all cars and trucks will not produce any dust, so your car will be clean when you get home. (Assuming of course it was clean.....)**

Have a good month and hope you get lots of flying in and the wind cooperates.

Regards, *Gene Peterson, Treasurer*

### SEPTEMBER SVF Birthday Boys

First name	Last name	Member type	Dob
Craig	Early	Regular	09/01/1954
Paul	Nelson	Regular	09/01/1965
Jon	Bowers	Regular	09/03/1943
William	Jenkins	Regular	09/03/1964
Dave	Uhlving	Regular	09/03/1953
Jim	McGrath	Senior	09/08/1937
Gene	Peterson	Senior	09/08/1942
Arthur	Gambino	Regular	09/08/1958
Rick	Baker	Regular	09/09/1949
Marvin	Jones	Senior	09/11/1937
Brad	Beedy	Regular	09/11/1976
Raymond	Przybylski	Regular	09/12/1947
Kriss	Trunkett	Regular	09/13/1964
Robert	Acton	Regular	09/13/1958
Bryant	Mack	Junior	09/14/1997
George	Henzel	Senior	09/17/1940
Michael	Moses	Regular	09/21/1965
Stephen	Myers	Regular	09/21/1946
Gary	Gregory	Regular	09/22/1945
Charles	Brooks	Senior	09/23/1938
John	Lowther	Regular	09/23/1953
Christian	Kasprovicz	Regular	09/23/1977
John	Neilson	Senior	09/25/1936
Carl	Gotch	Senior	09/28/1934
Derek	Micko	Regular	09/30/1976



"PERSONALLY, I DON'T BELIEVE ALL THOSE STORIES YOU HEAR ABOUT FANATICISM IN THIS HOBBY!"



# Presidents Raffle



Hosted By SVF



★ Win One of These Three Planes ★

★ All New — In The Box ★

★ \$5 gets you 5 tickets ★

★ \$20 gets you 25 tickets ★

Tickets can be purchased from any Board Officer

**We're BACK!**

**Frank's Hobby House is once again  
OPEN FOR BUSINESS!**

The remodel is nearly complete.

Restocking the store is ongoing.

We can't thank the valley's modelers enough  
for their support during this crisis.

Your cards and phone calls were amazing.

(The homemade cookies were pretty awesome, too!)

**Because of the tremendous amount of  
merchandise we are ordering, our  
suppliers have offered us extra discounts!**

**If you have been putting off buying that  
big ticket item, now is the time!**

**Make a list and drop by the store!**

**Planes, engines, radios, etc.**

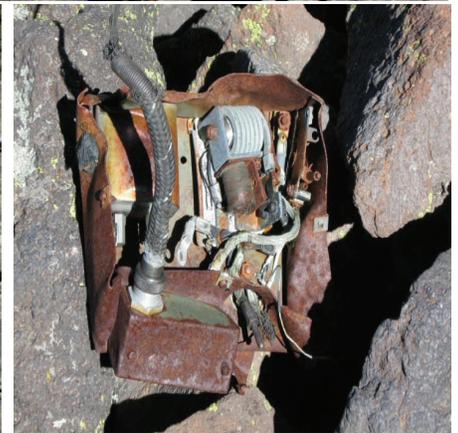
**(Prices so low, we can't advertise them.)**

**Frank's Hobby House  
12008 N. 32<sup>nd</sup> Street  
Phoenix, AZ 85028  
(602) 992-3495**

Received August 27, 2010

## B-24 Debris on San Francisco Peak, AZ

by Ray Fulks, SVF'er, photos by Ray

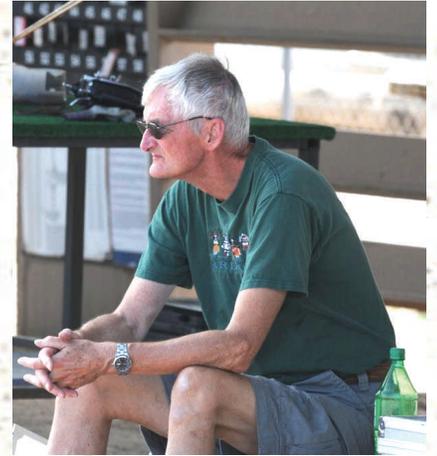


I am ready to lead anybody to the site that wants to see it. It is quite a trek. 6.5 miles round trip with around 2000 feet elevation gain. Lots of huffing and puffing to get there. Some of the youngsters hike up pretty quick but I am slow but steady. The wreckage is located around 11250 feet elevation. There is a good trail for all but the last half mile where you have to bushwhack/boulder hop across the mountain and hope you find the site. Ray

# SVF MEMBERS PAGE



Photos by SVF Members



Congratulation to Frank Seminera on his Solo flight 8-22-2010. Instructor Howard Kennedy and examiner John Geyer.



WEEDS BE GONE!



SVF ??

# ANSWERS TO TOWNS IN ARIZONA

HOW WELL DO YOU KNOW THE TOWNS IN ARIZONA?

- |  |   |               |               |
|--|---|---------------|---------------|
| 1. Map of the world <u>Globe</u>                                     | 35. RA's Blossom <u>Sunflower</u>                       | Aqua Caliente | Quartzsite    |
| 2. Table lands <u>Mesa</u>   | 36. Not you shortest son <u>Tolleson</u>                | Ashfork       | Red Rock      |
| 3. Big house <u>Casa Grande</u>                                      | 37. Scarf <u>Vail</u>                                   | Bagdad        | Roosevelt     |
| 4. When you give your child<br>his allowance <u>Payson</u>           | 38. Not old <u>Young</u>                                | Bisbee        | Salome        |
| 5. Unspeedy victory <u>Winslow</u>                                   | 39. Apache summer home <u>Wikieup</u>                   | Bonito        | Sanders       |
| 6. What we hope next year<br>will be <u>Goodyear</u>                 | 40. A question <u>Why</u>                               | Buckeye       | Sells         |
| 7. Unexpected <u>Surprise</u>  | 41. Commercial insect <u>Bumblebee</u>                  | Bumblebee     | Sentinel      |
| 8. Unbranded calf <u>Maverick</u>                                    | 42. Group of 8 musical notes <u>Octave</u>              | Casa Grande   | Showlow       |
| 9. Memorial to the dead <u>Tombstone</u>                             | 43. Ambulatory <u>Walker</u>                            | Cashin        | Sierra Vista  |
| 10. Fabulous bird <u>Phoenix</u>                                     | 44. Auto valet <u>Parker</u>                            | Cave Creek    | Snowflake     |
| 11. Snake house and a small<br>stream <u>Cave Creek</u>              | 45. Twin boys <u>Tucson</u>                             | Cherry        | Solomon       |
| 12. Alfalfa and a lair <u>Hayden</u>                                 | 46. Low card <u>Showlow</u>                             | Christmas     | Springerville |
| 13. Wise king <u>Solomon</u>   | 47. December 25th <u>Christmas</u>                      | Congress      | Strawberry    |
| 14. Biblical dancer <u>Salome</u>                                    | 48. Mexican food & an apartment<br><u>Tortilla Flat</u> | Constellation | Sunflower     |
| 15. Indian tribe <u>Navajo</u>                                       | 49. Mountain View <u>Sierra Vista</u>                   | Cottonwood    | Superior      |
| 16. Pole for hanging a banner <u>Flagstaff</u>                       | 50. Suit maker <u>Taylor</u>                            | Douglas       | Surprise      |
| 17. Residue from burned wood and<br>an eating utensil <u>Ashfork</u> | 51. Never give up <u>Hope</u>                           | Elgin         | Taylor        |
| 18. Better than most <u>Superior</u>                                 | 52. Tree <u>Cottonwood</u>                              | Flagstaff     | Thatcher      |
| 19. Former president <u>Roosevelt</u>                                | 53. Small red fruit <u>Cherry</u>                       | Florence      | Tolleson      |
| 20. Part of a book <u>Page</u>                                       | 54. Wood working tools <u>Sanders</u>                   | Globe         | Tombstone     |
| 21. Woman's name <u>Florence</u>                                     | 55. Printing machine & small bed<br><u>Prescott</u>     | Goodyear      | Tortilla Flat |
| 22. Frozen vapor <u>Snowflake</u>                                    | 56. Dog town <u>Springerville</u>                       | Green Valley  | Tuba City     |
| 23. Highest office in a city <u>Mayer</u>                            | 57. Vegetable and mineral <u>Peoria</u>                 | Hayden        | Tucson        |
| 24. Vends <u>Sells</u>   | 58. Rock and a location <u>Quartzsite</u>               | Hope          | Vail          |
| 25. Extinct Pachyderm <u>Mammoth</u>                                 | 59. Blood stone <u>Red Rock</u>                         | Inspiration   | Walker        |
| 26. Brilliant Idea <u>Inspiration</u>                                | 60. Pure stream <u>Whiteriver</u>                       | Kingman       | Whiteriver    |
| 27. House of Representatives & Senate<br><u>Congress</u>             | 61. Musical instrument town <u>Tuba City</u>            | Mammoth       | Why           |
| 28. Hollow tube and a fruit <u>Strawberry</u>                        | 62. Envious meadow <u>Green Valley</u>                  | Maverick      | Wikieup       |
| 29. Sell your poker chips <u>Cashin</u>                              | 63. Powdered bleach & insect <u>Bisbee</u>              | Mayer         | Winkelman     |
| 30. Male deer and an ocular <u>Buckeye</u>                           | 64. Hot water <u>Aqua Caliente</u>                      | Mesa          | Winslow       |
| 31. Man's name <u>Douglas</u>  | 65. Ocean fish <u>Bonito</u>                            | Mormon Lake   | Young         |
| 32. Coronation <u>Kingman</u>  | 66. Group of stars <u>Constellation</u>                 | Navajo        |               |
| 33. City of 1001 knights <u>Bagdad</u>                               | 67. Bishops pond <u>Mormon Lake</u>                     | Octave        |               |
| 34. Straw roofer <u>Thatcher</u>                                     | 68. Guarded watch <u>Sentinel</u>                       | Page          |               |
|  | 69. Flirting male <u>Winkelman</u>                      | Parker        |               |
|  | 70. A brand of watch <u>Elgin</u>                       | Payson        |               |
|  |   | Peoria        |               |
|  |   | Phoenix       |               |
|  |   | Prescott      |               |

# SVF MEMBERS PAGE



*Photos by SVF Members*



# Newbies GUIDE to GIANT SCALE GAS ENGINES

By Bob Pastorello

Part 1 of 4

This is a living document, that will be updated whenever the need arises. Many of these hints are "common sense" based upon years of experience. They are not hard to learn, not difficult to remember, and easy to use. These hints will make your RC flying safer, a lot more funner!!!

So... as a "newbie" to Gas. Some things in general that you must keep in Mind and Learn About Doing. The following guides are not in any particular order.

## GUIDE TO GIANT SCALE GAS ENGINES

1. All tank and plumbing accessories must be " gas " rated. Dubro brown color stoppers are the "standard". Yellow Tygon is widely used. Clear tubing is crap. All fittings need to be "secured" over their attachment barbs. All smooth brass tubing needs some kind of bump, solder blob, or barb to keep Tygon on, as it swells in use. BEFORE it gets rigid and brittle with age. NORMAL.
2. **1a. Klunks and filters**.....gotta have 'em someplace. Klunks in the tanks that are like the little Walbro "felt klunks" in your weed eater work REALLY well. So do more exotic ceramic particle filters. Gotta have a klunk. Gas should be filtered in the jug, too, before it gets INTO your airplane. And yes, tanks only need two lines.... vent to atmosphere and line to carb. You can use a tee with a fuel dot to fill and drain the tank. It will work forever. You also can use three lines, but that gets a little more complicated. Use filters. USE FILTERS.

Note: If a two line system is used make sure the tank is not lower than the fuel er you use, If it is the fuel will run out of the line back into the tank and then you have to pump the fuel back to the carb and there will be air in the line. Making the first start after fueling a little harder.

**1b.** Pulse Lines - MANY gassers have a piece of Tygon fuel line running from a fitting on the crankcase or intake adapter to an inlet pipe on one of the "sides" of the carb. This line is NOT for gas . It must not be kinked. It cannot have holes. If not hooked to the pulse line on the carb, the carb will not pump. Ever. When in doubt, call the manufacturer. Most of them ship their engines with the pulse lines already properly connected. Sometimes they even have manuals with pictures in them that MAY show this line and its' fittings.

**2.** Every engine with a Walbro or "clone" carb MUST HAVE their Low and HIGH speed needles re-adjusted from factory settings to get GOOD performance. EVERY ENGINE!!!

**2a.** Walbro carbs (and other similar) have PUMPS. Rocking the prop back and forth or flipping it with fuel will PUMP the head full. Spark doesn't work under fluid. The tank can be a long way from the carb, and that's okay. As you rock the prop, watch the air bubble/fuel move up the line. If the bubble isn't moving....the pump isn't pumping. Get the pump wet inside somehow. Fact.

**3.** Breaking an engine in on the ground is generally not a real good idea. Use the manufacturer's recommended oil ratio for starters, get a couple tanks (or less) through the engine to make sure everything is okay, then go fly the damm thing so it will have SOME form of cooling air over it.

**4. Spark plug cap fittings usually fit very tightly if they are the "push on" type, and you will have to push HARD. It's normal. If the plug cap isn't on correctly, it will not run right. EVER. And you'll get unreliable starting, running, and radio interference (all not-good things).**

**5.** Prop drilling - if you have a jig, use it. If you don't, use the prop washer as a guide and try to get straight holes. ALWAYS balance a prop before using it.

**6.** Most carbs will require you to modify the throttle arm to be "user friendly" for our pushrod/ball link setups. Get over it. It's the way it is. Use a short servo arm to attach to the crappy little plate they supply on the throttle butterfly shaft. Use ball links and very rigid pushrod setups with GOOD servos.

**7.** Remove and toss the "stop screw" on the throttle arm plate, then unhook the little spring that pulls the butterfly closed, unless you want your throttle servo under constant load/tension. Do NOT REMOVE THE SPRING.

**8. Electronic ignitions work wonderfully, if they are getting power. Use a reliable battery with the voltage rating and milliamp hour rating that the manufacturer recommends. WHY??? Because if you toast the ignition from incorrect battery usage - YOU WILL BUY THE REPLACEMENT. If they say nothing, go with a 4 cell 1100mah NiCad, or NimH, or a 5 cell system on a GOOD regulator. Not recommended for newbies. Get some experience with this area. Always use a switch, and setup throttle so you can kill it. Generally speaking, there are "good" ignitions, and there are "cheap" ignitions, but not so much "Good and Cheap". Ya gets what ya pays for on this one!!!!**

**8a.** Ignitions all have three chunks of wire. ONE, the spark plug lead, also contains the "ground", and must make contact with the outside of the plug hex (where your socket wrench grabs the plug). It can't have holes, or

#### Gas Engines Part 2 of 4

- 8a.** Ignitions all have three chunks of wire. ONE, the spark plug lead, also contains the "ground", and must make contact with the outside of the plug hex (where your socket wrench grabs the plug). It can't have holes, or cracks, and should always be prevented from rubbing on ANYTHING. TWO - "Power", usually a "female" battery-type connector with a red and black or red and white wire/connector. This is where the "OUT" of your switch provides power to the ignition. NEVER get the red and other color mixed up ever!!! THREE - the "sensor pickup" - usually a black/white/red (or similar) wire that connects to the thing that is mounted up near the prop hub (on most engines). This is the "hall switch", and picks up the rotation of the prop hub by sensing a magnet when it rotates past the face of this switch. ALL three wires have to connect, and the polarity of these three wires can never be wrong, either. The ignition senses the magnet rotating past the switch on the hub/crankcase to figure out when to send the spark to the plug. It only "knows" when the magnet has passed it. ALL of these work the same way. Rotating the hub magnet past the hall sensor/switch means that the IGNITION **\*\*WILL FIRE THE PLUG\*\*** if it has power. Many people with injured fingers thought an ignition was OFF when it wasn't and found out by casual flicking of a "hot" prop. The ED department visit usually costs more than an engine. AVOID this, always. Treat a gas ser with an ignition attached as if it is HOT, 100% of the time.
- 9.** In general, a new carb will not pump if it has been dry for awhile. Period. Get some gas into the thing by normal "priming", close the choke, flip through a few times, ignition on, throttle at high idle. Engine pops starts, dies, open choke, flip till starts. RESTRAIN you AIRPLANE while doing this. ALWAYS.
- 10.** These gassers need GAS . Not some other kind of make-believe fuel. If yours has ethanol, it will be okay. 95% of our engines will do just fine on regular unleaded 87 octane pump stuff. They also have to have OIL. Nearly all of these need about 30 or 32:1 ratios for their first starts. That's 4 oz to a gallon. Easy to remember. Won't hurt the engine. Use a good quality oil for 2 strokes. If in doubt, call the ENGINE seller about ratios and types.
- 11.** No Metal to metal from the servo to carb. Use nylon rod and sleeve.
- 12.** Place the Rx as far as practicable away from the CDI as possible.
- 13** - Whoo - black Friday - don't fly on this day.
- 14.** If it isn't running right on the ground, it will NOT improve in the air. ADJUST IT!!! And do that ONLY after it is at its "normal" operating temp.
- 15.** More prop does not mean more power. It means more load, and generally that isn't a good thing. EVERY prop change on EVERY engine will need re-adjustment. PERIOD.
- 16.** If someone helps you and things get worse with your engine - get a different helper. ALWAYS.
- 17.** Mufflers - nearly all of them are NOT; they are exhaust cans with diverter outlet tubes. They are usually louder than you think. If you want quiet, you need a canister, period. Not necessarily for newbies.
- 18.** Install mufflers with no gasket; use a thin film of Permatex High Temp Permagasket on the face of the muffler flange. Put RED "permanent" or "high temp" Loctite on the screws, and tighten them. Tightly.
- 19.** If you have to use a Pitts muffler, brace the canister part to the engine/firewall with a bracket or strap of some kind. Tighten the muffler to the engine exhaust THEN install the strap/canister attachment. Don't do it the other way.
- 20.** Smoke is not for a newbie. If you must smoke, get help with it, as you've instantly doubled your plumbing complexity, tanks, added weight, electronics, etc. If you have to have it, post here on "How to Setup Smoke". It works great and looks like a million \$\$\$ but most folks don't mess with the mess.
- 21.** Spark plugs. These are not glow plugs. They need ignition sources. They have to be properly gapped. They should not be oily-looking, fouled, or have shiny metal flakes on the porcelain. ANY of these things are symptoms that something else is wrong.
- 22.** If your engine doesn't "take throttle" (hesitates), the low end is probably lean. If it "takes throttle", but bogs down, coughs, sputters, etc. it is low end RICH. NO doubt about these. Properly-adjusted gas ser carbs operate very well. Poorly adjusted ones will make you insane.
- 23.** If you have been flipping until your arm is ready to fall off.....go back to the first post on this thread. SOMETHING ain't right. All of these engines need air, gas , compression, and ignition. Given all of them in the proper portion and time, these engines ALWAYS start. If they do not....SOMETHING IS NOT
- 24. Gassers vibrate. Period. Firewalls must be STRONG, and pinning around their circumference with wood dowels or epoxy/nails is a good practice. Pulling the engine box off an ARF is easier to do than you think.**
- 25. Your engine will probably require "standoffs". Measure your ARF from intended prop spinner back plate to firewall. Deduct the overall "mounting length" of your engine, plus 1/8". Whatever is left is the "standoff". You can buy metal ones, or make your own out of hardwood dowels, whatever. BUT - they**

**BUT - they have to mount real solid-like. Find sources of long #10-32 hex head bolts, split washers, flat washers, fender washers and nylon-insert Locking nuts. USE them. It is a BAD plan to have an engine come loose.**

**26.** Allow "exit area". You cannot avoid it. You either make holes to let LOTS of air out of your cowling/nose, or you cook your engine. Period. If you are able to do it, direct air by dams or ducting directly over the fins of the engine, THEN to the "big exit area". If you hover, or do strenuous 3D....skip this step and you'll cook the motor, probably seizing it up at a low-altitude hover by overheating, thereby crashing your airplane ALSO.

**27.** Props - the most important accessory for your engine. Bad props give sucky performance, break easily, or disappoint you in their performance. Any good prop of the manufacturers rated size will make you a happy gas ser. **27a.** Prop Balancing - probably an oft-ignored and vitally-important "thing" for gas ser guys. A good balancer is essential. A bad balancer is a waste of money. I prefer the Dubro Spin balancer....very sensitive. Blades are balanced by lightly spraying the back of the blade with clear spray lacquer- lightly...until blades balance. If blades are balanced, but moves anyway, check the hub. Put the prop on the balancer with blade vertical. Release blade. Watch top blade....if it falls LEFT (as you're looking at it) then the RIGHT hub needs weight, and vice versa. Weight on the hub is the curly Velcro, ca'd in place, a few drops of thick ca, then kicker. Recheck balance. Keep at it until the prop remains motionless wherever you position it on the balancer. THAT is perfect balance. Takes about a half hour on a 22", more on bigger. DO IT.

**28.** RPM readings. Nearly meaningless for one user to compare to another user. Even if using the same prop. Carbs are very sensitive and being off the sweet spot by 1/16th turn on the H needle can make a big difference in tach readings. Plus, most tachs are semi accurate, part of the time, and light/angle sensitive all of the time. Unless you know me, and how I tune, my altitude, air density, oil mix ratio, type of oil, and heat temperature....my peak rpm is of no consequence to you except for "ball park", and it's a helluva big park. Most 50cc gas sers and above should be somewhere around 7000 with the "stated" prop from the manufacturer. Larger displacement, lower peak rpm. That's how it goes.

**29. Frequently check your ignition battery voltage. Under load, if possible. An ignition battery that is losing its guts will create bizarre unreliable and misfiring engines.**

**30.** If your engine was fine yesterday, and today it's NFG, then \*something\* changed. Find what changed, and fix it. Don't jump to conclusions and speculate. Work through the systems. Start at the tank, work through the plumbing. Start at the battery, work through to the plug, start at the servo, work through to the butterfly. Only a VERY few, and "special" engines are actually sold with Gremlins built into them. Usually they have already been owned by someone who couldn't find and kill the gremlin, so you got it. Think of a finicky motor as a PC virus....there is a solution....you just have to find it.

**31.** When you have a new engine....buy a new (correct) spark plug. And as soon as you can afford it a Spare Ignition, and a Hall Sensor/switch. Spare carb if you aren't a "carb tweaker". Carb rebuild kit whether you are or are not. Buy replacement prop bolts, and be sure to use split and flat washers so the prop washer doesn't get all boogered up. Many manufacturers don't know about this yet, so they don't include screws long enough for thick hubs and spinner back plates, much less the split and flat washer. It is worth investing in.

**32. Buy extra metric screws and ball drivers. NEVER trick yourself into believing that a 10-32 is the same as a 5mm. They ain't.**

**33. ALWAYS provide for some form of emergency engine/ignition cutoff. At a minimum, install an external switch that cuts off power to the ignition. Better yet, add to that an internal ignition cutoff, that is connected to a spare channel on your radio. Optical remote cutoff modules from SmartFly or other providers, work really well. Make sure the assigned switch is out of the way, so you do not hit that switch accidentally while flying.**

**34.** Tygon tubing, of the type mostly used for gas engine in model airplanes, degrades over time. Check the tubing on any airplane you have acquired, especially at the ends. The piece of tubing inside the tank that is attached to the clunk and dipped in fuel, will likely get hard in a year, lose its flexibility and could be the source of fuel draw issues if not checked.

**35. OIL -** It is vital that you protect a gas ser with the RIGHT kind of internal oil film for operation. Too little oil and it will die a quick and horrible death. Too much oil, and you plugs and airplane covering will look "ugly". It is never a good idea to use an oil that intentionally introduces abrasives to "wear in" an engine. Let a proper amount of good oil do that during FLYING !!! Everyone has their preferences; some are based on experience, some on knowledge, and even fewer on BOTH. Ask the person with BOTH what they recommend. ALWAYS pay attention to what the company that is providing WARRANTY on your engine says about oil. Do it "their way",

**36.** In general, most folks agree that a transmitter-operated kill switch is a good safety device. If airborne, with a typical large tank, your throttle servo fails or disconnects, you either land hot and break something, or fly around risking killing batteries. If you have a switch to flip that chokes the engine, or removes power from the ignition, YOU can decide when to land - safely. a. Choke Servo - this involves hooking up a choke servo to an extra channel, and assigning to a switch or lever on the TX that closes the choke when you actuate it. Overly-rich, with air cutoff, the engine will die quickly. Pros and cons to this system. b. Electronic Kill Device - this involves an electronic switch that is operated by a spare RX channel, activated by the TX that cuts off power to the ignition module. These are nearly always installed "after" the on-board separate ignition switch, and "before" the module in the power lead. Usually optically-coupled electronic switches, they don't induce any harmful interference when properly installed. Lots of these available. If going this way, ask around your area or on RCU to help make your decision. Whatever you do, please ALWAYS consider the safety benefit of being able to shut off your gasser when YOU want to. It is a vital element of overall RC safety, IMO.

**37. Throttle Linkage, Trim, and Adjustment** - Our carbs are really intended to be nearly "full on" a majority of time...not to be continually varying them in the middle range which is our main usage. So, to get things "right", it's important (maybe VITAL) to properly setup the mechanical \*and\* electrical setups of the throttle and carb arms. Here's what I suggest: Method A - Basic Approach Full DOWN throttle trim is "cut-off", closing the carb completely. This is the full ATV adjusted on the bottom end. I set this by fine tuning the ATV so the control rod isn't binding the servo, but the throttle plate is completely closed. Middle "detent" throttle trim is the "landing" and "taxi" trim setting. That is determined by a couple of things that inter-relate. First, in the System setup screen, set the Throttle trim authority to 50%. It is far too sensitive otherwise, for a gas ser. Then, assuming that you've set the carb arm length to be slightly more than the servo control arm take off length, the 'half trim' should be where the plane will sit motionless when engine is fully warmed up. Finally, set the Throttle Curve function ONLY if you cannot get the low end sensitivity/linearity mechanically. Reason I suggest that is that the mechanical rotational and linear geometry of the arms can go a long way toward getting it "right". Finally, the "full" trim is the "hot restart" setting, because my carbs tend to be leaner on the low end, so a hot restart needs just a bit more travel. Method B - The Real Deal Now - the "real deal" is to get the correct pushrod length. There are, again, many opinions on these mechanical setups, but I'll just describe mine, as it is consistent, repeatable, and reliable. Use a Servo arm where the "take off" or "ball link attach" point is about 5/8" from center of shaft. Purpose of that distance is to ensure that you'll be close to needing 100% ATV on both ends of the throttle channel, making the "clicks" of throttle less profound. You don't want big differences per click, and a longer arm will be too much. Shorter arm requires too much ATV diddling, and introduces mechanical expo which may not be in the "correct" direction.

On the Carb, use an arm with the ball link take off point at 3/4" from shaft center. This permits more rotation of the arm, and helps solve sensitivity issues mechanically at the carb. Walbro carbs are HORRIFICALLY non linear and overly sensitive... Now, with both arms installed, set your ATV to about 90% on both extremes. Open the carb arm to "FULL THROTTLE" (where it hits the mechanical full throttle stop), and move throttle stick to FULL throttle. Measure the straight line distance between the centers of the ball link attachment points. Now, go to full CUTOFF low throttle and low trim, and rotate the carb arm to FULL CUTOFF. Measure that straight line difference. If not the same as the full throttle length, take the average. Create a Carbon fiber, or stiff metal pushrod of EXACTLY that length. Install. You will be very close to "perfect". Tweak the ATV end points as needed, you perhaps will need to adjust the Throttle trim authority again, but you will be very close to a good linear setup. If it isn't like you want it, THEN setup the Throttle curve function, but not until after all the mechanical stuff has been taken care of.

**38. Using Stuff NOT from the Manufacturer** - in general, unless you have a field full of qualified and experienced gas - helpers, make your FIRST gas ser install \*\*exactly like the engine manufacturer tells you to do it\*\*\* This helps you in several ways....1) you'll be doing what the folks who will WARRANTY the thing have said to do....2) if you have to call them for help, they will know how your system is setup and it will be easier on both of you for troubleshooting....3) sometimes stuff that folks buy as 'add-ons' to make things better, easier, neater, really do NOT, and then as a new user, you have inadvertently placed unknown variables into the "why doesn't this work?" equation. It is just really easier, the FIRST time, to "do it the easy way", and "follow the instructions", as much as that advice may seem counter-intuitive to our knowledge and reason.

**39.** If you have read this thread this far, please go back to the start and remind yourself of the "basics". When things don't go well, most of us immediately begin jumping on "device or component failure". The sad truth, and I am absolutely including myself in this, is that the MAJORITY of time it's OUR failure to seek, read, and heed qualified guidance. We're just too proud since all of us have had chainsaws and weed eaters since we were kids. They "all work the same"..... NOT!!!!!!!!!!



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UPDATE:

An Academy of Model Aeronautics Chartered Club and Proud Member Club of the Central Arizona Modelers Ad-

**6/27/10:** The Fall Electric Aircraft Rendezvous is co-hosted by the Knight Flyers and the Speedworld RC Flyers. The event will be held at Speedworld RC Flyers field located in Wittmann, Arizona.

## FEAR REGISTRATION IS OPEN!

Click on the "fear event" button to get to the latest information about the FEAR 2010 event.

[www.knightflyersaz.com](http://www.knightflyersaz.com)

## VIDEOS and Websites Links

Click on to view video, website

**AIRVENTURE at the Brown Gate 5:48 Part 1 of 11?**

<http://www.youtube.com/watch?v=FcFOzE4K5NE&feature=related>

**AIRVENTURE 2010 Another 5:08**

<http://www.youtube.com/watch?v=CgM2W2vxsbw>

**Top Gun 2010 oops moments 5:25**

<http://www.youtube.com/watch?v=hb13Q0ZmSAQ&feature=related>

**R/C KING-AIR turboprop WORLD's FIRST 5:34**

[http://www.youtube.com/watch?v=bmoLrO4fC\\_E](http://www.youtube.com/watch?v=bmoLrO4fC_E)

**Biggest Little Air Show on Ford Island 2:47**

[http://www.youtube.com/watch?v=IUjzd61\\_GB0](http://www.youtube.com/watch?v=IUjzd61_GB0)

**For you Railroad fans 5:17**

<http://www.wimp.com/traintrack/>

**P-51 360 degrees Give it time to load**

[http://www.stclairphoto-imaging.com/360/P51-Mustang/P51\\_swf.html](http://www.stclairphoto-imaging.com/360/P51-Mustang/P51_swf.html)

**Eject, Eject! Photos**

[http://photoblog.msnbc.msn.com/\\_news/2010/07/23/4739027-pilot-ejects-an-instant-before-fighterjet-crashes](http://photoblog.msnbc.msn.com/_news/2010/07/23/4739027-pilot-ejects-an-instant-before-fighterjet-crashes)

**Arrival of the P-40E Photos**

<http://www.flickr.com/photos/pacificaviationmuseum/sets/72157624514695979/>

**MotorCalc, Free for 30 days**

<http://www.motocalc.com/>

**Need to know more about electric flight. Go to this site.**

<http://www.wattflyer.com/forums/showthread.php?t=18521>

***SVF Website Buy & Sell items***

<http://sunvalleyfliers.com/classifieds/classifieds.htm>

## Campaign Statement from Lawrence Tougas

Greetings,

I want to thank your Club Officers for providing me with the opportunity to present myself to you, so that you can make an informed decision when you cast your vote for AMA District X Vice-President this September.

I was a candidate in last year's District X election. I ran against our interim Vice-President Jim Giffin, who had been appointed by outgoing District Vice-President Rich Hanson. A lot of people told me I was crazy to run against the establishment; that there was no chance of breaking into the AMA Leadership as an outsider. Well I guess they were right because Jim won the election, but it turned out to be the closest election not only in the history of the District but in the entire history of the AMA which is something I am proud of. When the votes were tallied in a District with 28,000 members there was a 34 vote difference between Jim and I. It was a virtual tie but as I've told everyone those 34 votes did count and Jim was our new VP and I wished him all the best.

Normally Jim would be serving his three year term, but sadly one month into his term Jim passed away. We are now conducting a special election to determine who will lead District X.

I feel I am the best qualified candidate to serve as your Vice-President and I would like to give you some information on my background, goals, and the critical issues affecting the AMA as well as how to keep in touch with me so that you can decide for yourself who is best suited to be the next District X Vice-President.

### **Background**

I have been a Design/Project Engineer for 23 years in the Aerospace Industry. I have worked in the Defense Industry, and am currently working at a major domestic airline. In Defense I designed parts for two missiles used in the "Star Wars" program, and produced parts for the Space Shuttle as well. In the airline industry on the maintenance side I have been the Primary Engineer, on flight control systems, aircraft interiors, and aircraft structure. On the Operations side I was the Operational Engineer on a wide-bodied aircraft, and as such worked with our Chief Pilots to maintain and modify the aircraft flight manual used by all of our pilots. During my career I have worked a number of long-term projects that required supervising multiple participants to ensure project goals and time lines were met. I believe that translates directly in to skills that an effective District Vice-President would need.

In addition I have owned and operated my own Video Production Company and understand the skills need to be a successful entrepreneur. I know how to market my products, which I think are the skills that our local clubs need to employ to market themselves to their communities to win and retain flying sites.

I've been modeling since I was a child. I've built and flew free flight, control line, and radio control models. I've spent my whole life enthralled by all aspects of aviation. It was this love of aviation that prompted me to secure a Bachelor's of Science in Aeronautical Engineering from the University of California. I also have a Commercial Multi-Engine Pilot's License with Instrument Privileges.

***Go to his website and see all of his campaign statements.***

[http://mail.aol.com/32447-111/aol-1/en-us/mail/DisplayMessage.aspx?ws\\_popup=true](http://mail.aol.com/32447-111/aol-1/en-us/mail/DisplayMessage.aspx?ws_popup=true)

## Aviation Wisdom

1. Truly superior pilots are those who use their superior judgment to avoid those situations where they might have to use their superior skills.
2. Rule One: No matter what else happens, fly the airplane.
3. Forget all that stuff about thrust and drag, lift and gravity; an airplane flies because of money.
4. The propeller is just a big fan in the front of the airplane to keep the pilot cool. Want proof? Make it stop; then watch the pilot break out into a sweat.
5. If you're ever faced with a forced landing at night, turn on the landing lights to see the landing area. If you don't like what you see, turn 'em back off.
6. A check ride should be like a skirt, short enough to be interesting but still long enough to cover everything.
7. Speed is life; altitude is life insurance.
8. Never let an airplane take you somewhere your brain didn't get to five minutes earlier.
9. Don't drop the aircraft in order to fly the microphone.
10. If you push the stick forward, the houses get bigger. If you pull the stick back, they get smaller.
- 11. Hovering is for pilots who love to fly but have no place to go.**
12. The only time you have too much fuel is when you're on fire.
13. Flying is the second greatest thrill known to man; landing is the first!
14. You know you've landed with the wheels up when it takes full power to taxi.
15. Those who hoot with the owls by night should not fly with the eagles by day.
16. Young man, was that a landing or were we shot down?
17. Learn from the mistakes of others. You won't live long enough to make all of them yourself.
18. Fighter pilots believe in clean living. They never drink whiskey from a dirty glass.
19. Things which do you no good in aviation: Altitude above you. Runway behind you. Fuel in the trunk. A navigator. Half a second ago. The airspeed you don't have.
20. If God meant man to fly, He'd have given him more money.
21. Flying is not dangerous; crashing is dangerous.
22. Flying is the perfect vocation for a man who wants to feel like a boy, but not for one who still is

"I must have had a good time  
at the party last night. Three  
guys have called up to  
apologize so far this morning."

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### Next month Issue

If you got something going let me know. Be the SR field reporter, great job and good benefits, like free fresh air.

*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](mailto:rcbobsvf@aol.com)

### This Month Issue

You got to attend the meeting for the President Raffle. Great prizes! Answers for AZ Towns, how did you do? Frank's now open. Do look at the new videos, websites. Send those articles and photos in!

Remember to ZOOM the PDF page to see more.



# THE SLOW ROLL

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Frank Moskowitz, President

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Gene Peterson, Treasurer

Rusty Fried, Secretary

Walt Freese,  
Website Supervisor

**Please check your  
Membership list for  
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