THE SLOW ROLL

CHARTERED #921
Since DEC. 1974

JUNE 2012

President—Frank Moskowitz
Vice President—John Geyer
Treasurer—Gene Peterson
Secretary—Jim McEwen
Editor—Bob Purdy K9JNB
rcbobsvf@aol.com

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

IMAA Chapter 782

Inside this issue: Cover Photo by Joe Balabon of John Geyer Mr.Mulligan……..…Box fire……. Just Fly ……..Building Part 6……..…Epoxy……..Engine Maintenance……SVF members photos…….....……B-17 story…….....Safe Side…….OEAF & Warbird flyers....Prez report…….. B'Days & Treasurer Report ...*A July Slow Roll will be publish*……..*MANY GREAT VIDEOS*……..*Much more, enjoy*

SVF JUNE MEETING AT 7 PM ***NO SVF JULY MEETING***

THE PRESIDENTS CHANNEL

Frank Moskowitz

June 2012 SLOW ROLL PRESIDENTS LETTER

Welcome to Junes Slow Roll.
Elections are over and for those of you that weren't in attendance at the election meeting in May; the results are as follows with new officers and board members in red: **Our club officers**; Frank Moskowitz – President, John Geyer – Vice President, Gene Peterson – Treasurer, **Jim McEwen – Secretary**. **Our Board Members;** Charlie Beverson, Mike Peck, Ron Thomas, Bob Bayless, Eric Stevens, Loren Counce, **Tony Quist**, **Ernie Mack** and **Wayne Layne**. I thank all of you that took the time to attend last month's election meeting to vote for your candidates.

Board member Greg Frohreich has resigned due to health reasons and Jim McEwen was elected as Secretary. That left two empty positions for board members. The board of directors voted to elect Wayne Layne and Ernie Mack who received the next highest number of votes at the May election. Ernie and Wayne will have one year appointments to finish out for Greg and Jim.

In last month's letter, I talked about the board's decision to push for a 400 foot hard limit right away rather than considering other options. The motion had passed by a 3-to-1 margin. However, since the method/details/consequences by which the rule would be implemented and enforced had not been discussed, the rule would not be implemented until the Board met again May 7th to discuss these details. There was quite a lengthy discussion in our May 7th board meeting. Some members (Steve Miller, Jim Tallmadge, Dean Bird, John Wanner and Bruce Bretschneider) attended as guests. The following items are some bullet points taken from Jim McEwen's minutes and comments from me;

- It was felt that the SVF could do better in implementing and enforcing the current rule of no sustained flight over 400 feet and that a spotter is required (e.g. requiring a dedicated spotter, not a caller/spotter, and educating the membership on AMA Document 540-D "See and Avoid Guidance").

Please read AMA document 540-D in this edition of the Slow Roll

- SVF will keep the existing altitude rule (no sustained flight over 400 feet and a spotter is required) and will train and enforce **"See and Avoid".** The board will educate members (particularly IMAC/pattern/jet fliers) on AMA 540D.
- Details regarding the training will be sent to all members via email. The board will further discuss the methods of training all members using small group meetings which take place at the field
- Any board member can immediately ground someone for not complying with the rule. If non-compliance is reported, the pilot (and their accuser) will be called to appear at the next board meeting. Penalties for non-compliance include expulsion from the club.
- The club will have zero tolerance on a pilot who ignores the "See and Avoid" rules.
- The spotter is to be 100% dedicated to watching the airspace for full-scale traffic and should not be used as a caller.
- If a full scale plane is close enough to the field (less than 1 mile) that its pilot may see a model, the model must descend below 400 ft. (In other words, if a 737 passes over the field at 30,000 ft you don't have to descend.)
- Please take the time to read (in this edition of the Slow Roll) the AMA document 540-D titled **"See and Avoid Guidance". This document states that "See and Avoid" is the primary means to avoid collisions between all aircraft flying within the National Airspace System (NAS).**

The board will be finalizing all decisions on these topics over the next few months. As promised, we will keep the membership apprised of all our decisions.
Our next meeting is **Wednesday June 6th 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). 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

“SEE AND AVOID” GUIDANCE”

A. General:

1. The primary means to avoid collisions between all aircraft flying within our National Airspace System (NAS) is “See and Avoid.”
2. Vigilance must be maintained by each person operating an aircraft (whether model or manned) so as to “see and avoid” other aircraft.
3. Model aircraft must avoid manned aircraft. Our privilege to fly model aircraft in the NAS depends on our commitment to remain “well clear” of manned aircraft.
4. Simply avoiding an actual collision is not enough. A “near miss” is not acceptable.
5. Unless flying at a mixed-use site where manned and model aircraft routinely share airspace through their own site-specific rules, model aircraft must fly sufficiently far away from manned aircraft so as not to create a collision hazard.
6. Model aircraft flying must not only be safe, it must be perceived to be safe by the greater manned aviation community. Modelers must continually demonstrate their respect for the safety of manned aircraft by remaining vigilant and well clear. 7.
Whenever a potential conflict arises between model aircraft and manned aircraft, the pilot of the model aircraft must always give way to the manned aircraft.
8. The pilot of a model aircraft must never assume the pilot of a manned aircraft can see the model or will perform any maneuver to avoid the model’s flight path.
9. Visual Line of Sight is required by the Safety Code. It means that visual contact with the aircraft must be maintained without enhancement other than by corrective lenses prescribed for the model aircraft pilot. All RC flying must remain clear of clouds smoke or any other obstruction to the line of sight.
10. Since the model aircraft pilot is exercising control by visual reference from a location on the ground, in general the model aircraft should always descend and turn to pass well below and away from the flight path of the manned aircraft. (Common sense would dictate that if descending endangers other aircraft, persons or property on the ground, other evasive action would be appropriate.)
11. A modeler should never place any consideration for the well being of the model aircraft above the safety of manned aircraft. Maneuvering to avoid the conflict may require that the model aircraft be sacrificed.
12. Free flight models should not be launched with relatively low altitude manned aircraft in sight and downwind or headed downwind from the launch site.

B. Spotters:

1. Before a flight, the pilot must insure that the spotter understands his/her duties and expectations.
2. A spotter should be used to assist in monitoring the surrounding airspace for manned aircraft whenever a flight is expected to exceed 400 feet above the ground and that operation is expected to be in proximity to known manned aircraft traffic such as at a mixed-use facility or within three miles of an airport. The spotter must have sufficient visual acuity and be mature enough to take this responsibility very seriously.
3. A spotter should also be prepared to assist his/her pilot in the event that another model aircraft or spectators become endangered or in turn are perceived to be a danger to the pilot or the pilot’s model aircraft.
4. If a model aircraft pilot experiences what he or she considers a near miss with a manned aircraft, that model aircraft pilot should notify AMA Headquarters with a written report of the incident, including action taken by the model aircraft pilot to avoid the manned aircraft. This report is intended to help the modeler, the club, and the AMA capture as much detail as possible so that it may be used to assist all parties in recalling the particulars of the incident at a later time. Call 1-800-435-9262 (1-800-IFLYAMA) extension 230 or 251 for assistance with this report.

Sun Valley Fliers Club Meeting Minutes
Date, May 2, 2012

The meeting was called to order at 7:02 pm by **President Frank Moskowitz**. 62 members were in attendance.

Guests: None

New Members: John Gibson, Barry Mazer, Joe Carter, Joe Giammarino, Mark Krogulski, Dennis Lamb, Jane Lee, and Ryan Riveras

New Solo Pilots: Jim Osborn and Bill Jenkins

Secretary's Report: Bruce Bretschneider

- Minutes of last meeting accepted as published in the Slow Roll.

Treasurer's Report: Gene Peterson

- We currently have 283 paid members.
- Treasurer's report was accepted as published in the Slow Roll.

Safety Officer Report: Ken Justice (reporting)/**Frank Seminara**

- Be sure to fly **NORTH** of the dead line… Not over the flight stations or the Ramada. The runway and the airspace over it are to be used only for take-offs, touch-n-goes, and landings!! **Fly ALL maneuvers north of the edge of the runway (that means over the dirt)!**
- Be sure to close the gate behind you when you enter or leave the field unless there is someone in line behind your car. If someone says he will be following you out, don't leave the gate open unless he is actually on the driveway behind you. This is important since we keep getting calls on the gate being left open.
- SVF monogrammed apparel is for sale. Contact Ken Justice.

Old Business:

- A question was raised as to the status of alcohol at the field. The official stand is **no alcohol use while flying**. Anyone who does not follow this rule is liable for any damages in case of an incident. There are signs prohibiting the use of alcohol.

New Business:

- Club elections were held. The votes were counted by a Board member and two non-Board members. The results were as follows:

  President – Frank Moskowitz, Vice President - John Geyer, Secretary – Jim McEwen
  Treasurer – Gene Peterson
  Board members (4) – Charlie Beverson, Loren Counce, Mike Peck, and Tony Quist.

- The question of relocating the pilot stations will be explained in a letter from Frank Moskowitz. The final decision will be made by a vote of club members.
- **Greg Frohreich** is having medical problems, however, his condition is improving while he awaits a liver transplant.

Community Awareness: (**John Geyer**)

- Two groups (dens) of Cub Scouts were at the field recently for some orientation flying. They would like to have a future event at 6 pm on June 15 at a church in Chandler. Contact John if you are interested in assisting with this event. Aircraft would be T-28 foamies or smaller.

Door Prize Winners:

- **Loren Counce - 1 gallon fuel, Lucky Mitchell –fuel, Frank Seminara –fuel, Ryan Riveras –fuel**

50/50 Winner: Frank Seminara won $78

Show & Tell: None

Meeting adjourned at: 7:50

Respectfully submitted,

Bruce Bretschneider, Secretary, ***Editor: Bruce thank you for a job well done as Secretary***

$ TREASURERS REPORT $ with *Gene Peterson*

Treasurer's Report June 2012

Not much going on for June, except maybe "do your flying early". Gets a little hot after noon. Bring lots of drinks with you.

Watch for snakes mostly when you go looking for a plane in the desert or some parts that came off. They are around. None have been reported in May I know of, but they still exist out there. Mostly they hang out in the wash over to the north west of the field. Bugs and varmints over there for "snake snacks"

New Members recently joined SVF are Joe Carter and Ryan Riveras. Say HI if you see them and check if they have any questions or need a spotter.

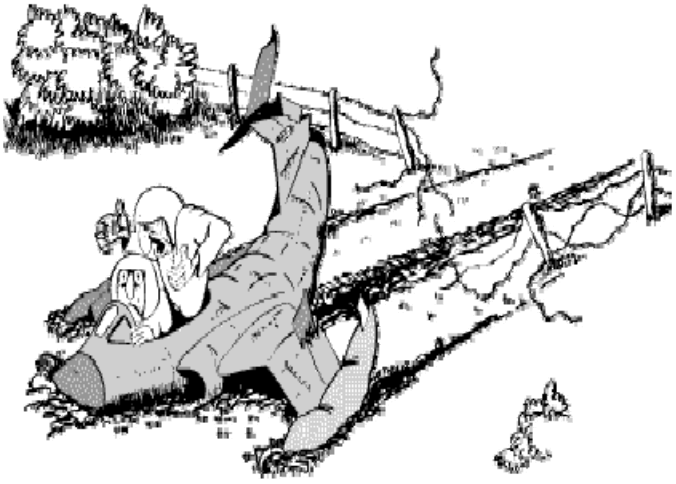
July General Membership meeting is cancelled, so see you June 6th for the June GMM or August 1 for August.

Happy Flying in June.

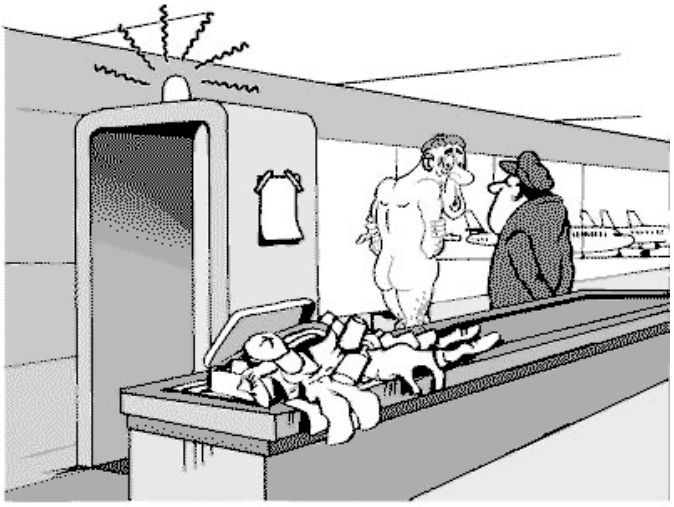
Regards *Gene Peterson, Treasurer*

JUNE 2012 SVF BirthDay Boys

First name	Last name	Member type	Dob
Roy	McNeil	Senior	06/01/1939
Ryan	Riveras	Regular	06/02/1976
Loren	Counce, Jr.	Senior	06/04/1933
Philip	Mahoney	Regular	06/05/1950
Kirk	Welch	Senior	06/05/1945
Tom	Perkins	Regular	06/06/1964
Mark	Morris	Regular	06/07/1961
Jared	Simmons	Regular	06/07/1983
Ward	Emigh	Senior	06/09/1934
Keven	Resinger	Regular	06/09/1962
Lucky	Mitchell	Senior	06/10/1944
Peter	Dickinson	Regular	06/10/1954
Rob	Keller	Regular	06/13/1969
Richard	Wildey	Regular	06/14/1971
Allen	Casey	Senior	06/15/1940
Curtis	Hannay	Regular	06/15/1950
Yuri	Higuchi	Regular	06/16/1969
Paul	Donovan	Senior	06/17/1932
Ernie	Mack	Regular	06/18/1967
George	Kenerly Jr.	Regular	06/22/1952
Robert	Whipple	Senior	06/24/1932
Joey	Marranca	Junior	06/24/1996
Willard	Wells	Regular	06/25/1947
Luke	Dicksion	Junior	06/27/1998
Louis	Pfeifer IV	Regular	06/28/1952



No, I did not say "I have control"



The only metal left is the filling in my teeth, I think !!

MEMORIAL DAY FLY BY

Flybys by SVF Members

Over the National Cemetery

Photos by Joe Balabon

Sun Valley Fliers

ON THE SAFE SIDE

The God Complex

By Jim Tiller,

I recently viewed a presentation by Tim Hardy, a noted economist, on what he called the God Complex. I am including a link to that YouTube thread if you want to see the 20-minute presentation. It is well worth your time. In a few words, he espouses the value of trial and error in systems rather than the "God Complex" approach. The God Complex means someone who is an "expert" in a particular area and thinks he knows all the answers.

The God Complex: www.ted.com/talks/tim_harford.html

How does this relate to RC safety?

The first conclusion would be to comment on all those on the Internet who obviously seem to be "experts" on almost everything. There is no better place to see the God Complex gone wild than on the Internet. Spend a few minutes on any of the RC forums and you'll know what I mean. And did you notice that the more they "know," the more they post. How generous of them. This discussion would take all day to finish.

Here is a simpler example. You built the airplane you now fly. You have the God Complex about that airplane just because it is the result of your efforts. More than anything, it just means that you are the only one who knows how it was put together and more importantly, how well it was put together.

One of the symptoms of the God Complex is that you become oblivious to input and especially, criticism. This is where the safety issue is. You should have other eyes looking at it besides your own.

I heard a story from a gentleman who attended a large Scale contest. One of the competitors was having trouble starting his engine and enlisted help from several in attendance.

While trying to troubleshoot the problem, they discovered that all four engine mounting bolts were loose. It seems the owner had mounted the engine several times during the last building stages and simply had meant to tighten the bolts later and forgot to do so. The test flights he did prior to the event were enough to make the bolts work themselves loose. A disaster was narrowly averted.

Obviously he did not do this maliciously, but his own God Complex had convinced him every task had been done on the model prior to flight. As the "expert" mind, he was in control of the situation.

At our club we just talked about having a "buddy inspection" of your airplane when you bring it to the field. This just means that someone else takes a look at it while you put it together. The fresh eyes may discover something that your own God Complex blinders have overlooked or neglected.

Let's also take a look at the value of trial and error. The point here is that mistakes lead us in the right direction. If that tail wheel mount in the ARF you just bought breaks after just two flights, you change it. If it still breaks you change it again.

The next time you buy an ARF, you might look more closely at the tail wheel mount and make modifications based on your past experience. This empirical data you gather makes you better, but the safety message is: be generous with this information to your fellow modelers. Make the knowledge base available to anyone who can use it.

Even if you don't think you have much to share, put it out there. In the words of Thomas Edison when asked how his experiments with light bulb filaments were going. He said, "I know a lot of things that don't work."

SVFers@JOENALL

JOE NALL VIDEO 4:13
http://www.youtube.com/watch?feature=player_embedded&v=Cb_Hrx8l3sI

Photos
http://www.rcgroups.com/forums/showpost.php?p=21665963&postcount=10475
Photos
http://www.rcgroups.com/forums/showpost.php?p=21666051&postcount=10478

VIDEOS and Websites Links

Click on to view video, website

Happy Memorial Day
http://www.jacquielawson.com/viewcard.asp?code=3517189579487&source=jl999

2012 TOP GUN 2:09 MB5
http://www.youtube.com/watch?v=81CqbmO_vK8

2012 TOP GUN 6:25 MB339
http://www.youtube.com/watch?v=BGKtqLAOVYA

2012 TOP GUN 12:53 A6
http://www.youtube.com/watch?v=HvOO4wQ-7gE

2012 TOP GUN 4:17 MOSQUITO
http://www.youtube.com/watch?v=flJmWJJdw5Q

2012 TOP GUN SHOWTIME 5:01
http://www.youtube.com/watch?v=XCbtumPNnPQ

TOP GUN PART 1 9:08
http://www.youtube.com/watch?v=3c1zJbvUnTw

TOP GUN PART 2 9:51
http://www.youtube.com/watch?v=DVSap6ohCZE

TOP GUN PART 3 18:26
http://www.youtube.com/watch?v=_DTwTIMtg_Y

SPACE STATION 2:30
http://apod.nasa.gov/apod/ap120305.html

SPACEX DRAGON Photo
http://boingboing.net/2012/05/28/iss-astronaut-upon-seeing-ins.html

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

My thanks to those who passed this info on.

SVF MEMBERS PAGE

Photos by SVF Members

KEEP SMILING!

Sun Valley Fliers

Flight Safety: Flight Box Fire

Jim Coleman,

During a flying session at a British Model Flying Association-affiliated club site, the pilot and his helper noticed a flash of arcing inside the flight box. The starter was immediately disconnected and the 12-volt battery removed. After this it was noticed that the bottom of the plastic flight box was bubbling, the cause of which was not immediately apparent.

After 15 seconds or so, the pilot and his helper tried to remove the flight box from the pit area and, as the pilot's helper bent over to pick it up, the flight box exploded in his face, throwing him some 30 feet and causing burns to his face and scalp, which required specialist hospital treatment.

The explosion was caused by the ignition of half a gallon of methanol-based fuel that was stored inside the plastic flight box together with the 12-volt battery and associated circuitry.

Unfortunately the flight box was so badly damaged that inspection did not reveal the detailed cause of the ignition. However, it is probable that an electrical fault ignited spilled fuel, fuel vapor, or probably both causing the plastic flight box to melt and the fuel container to ignite. Unfortunately, methanol burns with a very pale blue flame that is barely discernible in daylight resulting in the pilot and helper being unaware of the seriousness of the situation.

Fortuitously, there was a source of water nearby that was used to cool the burns while awaiting medical assistance.

Fuel fires of this nature are extremely rare, but to protect against a reoccurrence we advise the following:

Fuel containers are stored externally on flight boxes away from potential sources of ignition such as electrical equipment, lighters, and matches.

If you do store your fuel within the flight box, it should be within a separate compartment within the flight box. Drain holes should be incorporated to disperse spilled fuel and the compartment should be well ventilated to disperse fuel vapor. The design of the box should prevent fuel from migrating to other compartments within the flight box in the event of a spill.

Mop up any spillage immediately and dispose of the mopping up materials in a safe place.

Do not smoke in the vicinity of fuel.

If you have, or suspect you might have, a fire, warn your colleagues and clear the area immediately. Remember, methanol fires are not obvious in daylight so stay well back if in doubt.

If the fire is small, attempt to extinguish it by using an approved extinguisher for fuel fires (foam or powder). If there is any danger of a large fire, i.e. the fuel container itself, do not attempt to extinguish the fire under any circumstances. Always exercise extreme caution and if in any doubt, stay well back and contact emergency services for assistance.

Do not attempt to move any burning material.

Be sure you know the first aid treatment for burns and where the nearest water supply is. The first few minutes in the treatment of burns is critical if the injuries are to be minimized. The quicker the burn is cooled, the less the damage to the underlying skin tissues. Burns can cause severe shock that will require treatment.

Remember to avoid putting your fuel container into an enclosed space and never adjacent to potential sources of ignition. Should you have a fire, do not take any risks; your equipment is replaceable but you are not.

Compiled with advice from the Leicestershire Fire and Rescue Service.

SVF MEMBERS PAGE

Photos by SVF Members

Just Fly the Airplane

By Bob Wilson

Okay, I'm going to do a little story telling here but I promise to get to the point as soon as possible. There are times when someone or something makes an impression on you that sticks with you for the rest of your life. This is one of those stories.

It was a dark and stormy night. Forget that, actually it wasn't stormy, but it was around 2 a.m. and my flight instructor and I had flown to Wichita as part of my multiengine instruction in an old Aztec to get my rating, and we had been battling bad weather for most of the day on our return trip to Florida. We had to land a couple of times to wait out some serious looking thunderstorms, and for this reason we were not only arriving late but dog-tired to boot.

I had lowered the flaps and the landing gear and had three green lights, which told me the gear was down and locked. On final approach at probably 200 feet or so, I reached down to check the landing gear lever to make sure it had fully notched, at which time my instructor slapped my hand and told me to "quit that, just fly the damned airplane." His point being that we already had the three green lights and I had no business fiddling around on final approach. He was right—just fly the airplane.

I'm lying a little here, he actually used a much harsher word, but I can't repeat it here. You can guess it.

In the following 25 years of flying, I kept remembering his words and I believe they saw me through some rough situations.

When you think about it, the advice can be applied to our modern day RC flying. Whether flying a glider, gasser, or a pylon racer, the point is that "just fly the airplane" is still good advice.

You're out flying your gas-powered Decathlon and you have a lot of wind and if you have some trees near you, you will have turbulence, your airplane is bouncing all over the sky, going up and down like an elevator and now you're faced with making a landing. Whaddya do now? You guessed it, "just fly the damned airplane." And being the brave soul you are, you fly again, but this time, the wind shifts and you now have a 90° crosswind.

There are two basic methods for landing in a cross wind. The slickest way is to drop a wing into the wind and use opposite rudder to maintain a straight heading to the runway. Being the chicken soul that I am, I never learned to do that since it takes more coordination than I have, especially at my age. I simply crab the airplane enough to offset the wind and maintain my heading to the runway and then, just before I touch down, I straighten out.

Horrors, some will say. Well heck, it works for me and I haven't knocked a landing gear off yet—maybe from some bad landings, but not doing a crosswind landing at least.

Actually, if you've seen some of videos of crosswind landing airliners make, they use the crab method so I'm not alone in this.

All right, you ask, what's this got to do with "just fly the airplane?" Well, now that you ask, I think it has to do with a mindset. Whichever system you prefer cross-control or crabbing, forget about the wind, forget about the turbulence, just concentrate on flying the airplane, and the rest will take care of itself.

It is obvious that you should have mastered your flying to the point where things are more or less automatic and you no longer have to think about which way to push the sticks to raise a wing, but this comes with practice and time. And this leads to another point, which is flying instinctively. Let your instincts run free, for when you do, things become more automatic and you don't have stand there sweating over what to do next.

In other words, "just fly the damned airplane

SVF MEMBERS PAGE

Photos by SVF Members

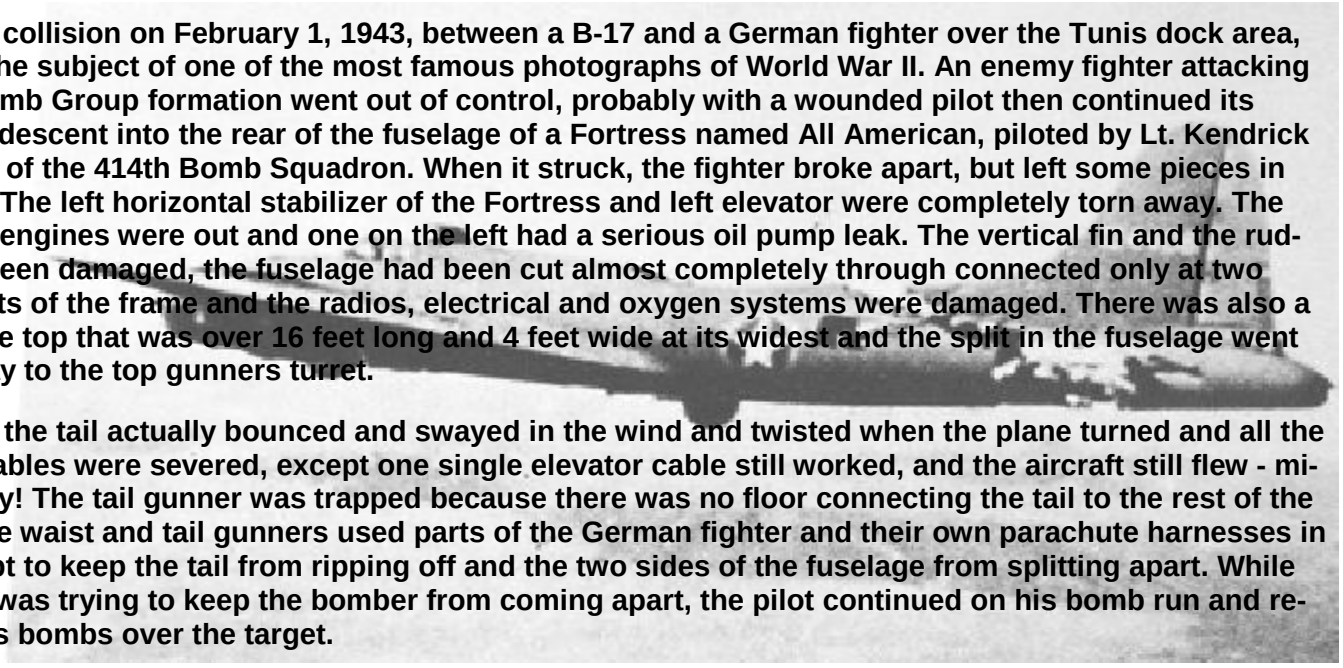
Cornerstone Church Open House

The Cornerstone Church in Chandler has invited the Sun Valley Fliers to fly and provide a "mall show" type presentation at their Vacation Bible School Open House on Friday June 15th. The theme for their Bible School is "The Sky" so they'll be doing aviation related activities all week and would like us to help them close out the week at the Friday night open house for students and their families. There is only enough room to fly Park Flier sized electrics and small electric helicopters. We would also like to have several larger models on display and a few "ambassadors" to talk to the families about the models and the hobby. If you're interested in participating, please contact: ***John Geyer 602-810-1767*** JEGeyer@cox.net

Thanks, JG

They built them strong at Boeing.

B-17 in 1943



A mid-air collision on February 1, 1943, between a B-17 and a German fighter over the Tunis dock area, became the subject of one of the most famous photographs of World War II. An enemy fighter attacking a 97th Bomb Group formation went out of control, probably with a wounded pilot then continued its crashing descent into the rear of the fuselage of a Fortress named All American, piloted by Lt. Kendrick R. Bragg, of the 414th Bomb Squadron. When it struck, the fighter broke apart, but left some pieces in the B-17. The left horizontal stabilizer of the Fortress and left elevator were completely torn away. The two right engines were out and one on the left had a serious oil pump leak. The vertical fin and the rudder had been damaged, the fuselage had been cut almost completely through connected only at two small parts of the frame and the radios, electrical and oxygen systems were damaged. There was also a hole in the top that was over 16 feet long and 4 feet wide at its widest and the split in the fuselage went all the way to the top gunners turret.

Although the tail actually bounced and swayed in the wind and twisted when the plane turned and all the control cables were severed, except one single elevator cable still worked, and the aircraft still flew - miraculously! The tail gunner was trapped because there was no floor connecting the tail to the rest of the plane. The waist and tail gunners used parts of the German fighter and their own parachute harnesses in an attempt to keep the tail from ripping off and the two sides of the fuselage from splitting apart. While the crew was trying to keep the bomber from coming apart, the pilot continued on his bomb run and released his bombs over the target.

When the bomb bay doors were opened, the wind turbulence was so great that it blew one of the waist gunners into the broken tail section. It took several minutes and four crew members to pass him ropes from parachutes and haul him back into the forward part of the plane. When they tried to do the same for the tail gunner, the tail began flapping so hard that it began to break off. The weight of the gunner was adding some stability to the tail section, so he went back to his position.

The turn back toward England had to be very slow to keep the tail from twisting off. They actually covered almost 70 miles to make the turn home. The bomber was so badly damaged that it was losing altitude and speed and was soon alone in the sky. For a brief time, two more Me-109 German fighters attacked the All American. Despite the extensive damage, all of the machine gunners were able to respond to these attacks and soon drove off the fighters. The two waist gunners stood up with their heads sticking out through the hole in the top of the fuselage to aim and fire their machine guns. The tail gunner had to shoot in short bursts because the recoil was actually causing the plane to turn.

Allied P-51 fighters intercepted the All American as it crossed over the Channel and took one of the pictures shown. They also radioed to the base describing that the empennage was waving like a fish tail and that the plane would not make it and to send out boats to rescue the crew when they bailed out. The fighters stayed with the Fortress taking hand signals from Lt. Bragg and relaying them to the base. Lt. Bragg signaled that 5 parachutes and the spare had been "used" so five of the crew could not bail out. He made the decision that if they could not bail out safely, then he would stay with the plane and land it.

Two and a half hours after being hit, the aircraft made its final turn to line up with the runway while it was still over 40 miles away. It descended into an emergency landing and a normal roll-out on its landing gear.

When the ambulance pulled alongside, it was waved off because not a single member of the crew had been injured. No one could believe that the aircraft could still fly in such a condition. The Fortress sat placidly until the crew all exited through the door in the fuselage and the tail gunner had climbed down a ladder, at which time the entire rear section of the aircraft collapsed onto the ground. The rugged old bird had done its job.

Engine Maintenance 101

By Richard Dvorin,

The objective of this article is not to make each person who reads it an engine mechanic, but rather to pass on a few tips that I have learned over the years that will help to make an engine last longer. After each flying season, I take the engines out of my airframes and clean them down.

I do so by plugging the carburetor and the muffler exhaust port with rolled up pieces of paper towels. Then I get a toothbrush (hard) and brush the engine off. After the dirt is off, then I spray on Dawn Power Dissolver. This will remove the burned-on grime and dirt. Wash the engine down with hot water being careful not to burn yourself, and then dry with paper towels or use a small air compressor, if available, to blow dry the engine.

When you are satisfied that the engine is clean enough, remove the back plate being careful not to damage the backplate screws or the gasket. Look for signs of metal filings in the crankcase and scrap marks on the backplate. These marks and filings are an indication that the connecting rod is rubbing the backplate. This condition can be caused by jamming an electric starter up against the spinner or spinner nut when starting your engine. If this condition exists, make sure that you wash the inside of the engine with kerosene or gasoline. If you use gasoline, do this outside for ventilation and do not work near open flame or spark and do not smoke!

When satisfied that the engine is clean, take a ½-inch dowel and a brass hammer and tap the back of the crank shaft to make sure that the connecting rod does not scrape the backplate. Check the rear bearing for dirt, rust, or corrosion. If rust or corrosion is present, send the engine back to the manufacturer for repair. Coat the inside parts with some after-run oil and close it. Make sure you inspect the backplate and if the screws are damaged, replace them with proper size socket head screws.

Check the rubber O ring seal that sits between the base of the carb and the crankcase for leaking or damage. Make sure the carb is tight. Remove the muffler, place a few drops of after-run oil on the piston and then on top of the piston. Place some after run-oil in the carb and then, with the aid of the propeller, turn the engine over several times to work the oil around.

Check the head screws and make sure the screws are tight. When you turn the engine over with the propeller, check the seat around the head and backplate.

If you see bubbles seeping out, you will have to replace the gaskets. Most parts can be purchased from your local hobby shops.

Reinstall the engine, hook up the throttle linkage, replace the muffler and you are now ready to take your airplane outside and start the motor. Make adjustments as necessary for throttle response and idle. Now you're ready to go.

Tri County RC Club, New Jersey

Unclog your CA Tips

Those tips that come with your jar of CA clog much too easily, right? To keep them ready to use, get a small plastic bottle with a tight lid and fill it partway with acetone, available from the home center. Make sure that the bottle/container is impervious to the acetone, just to be safe.

Now, when you're done with your building/repair project for the day, drop that tip into the acetone until your next session. Any dried CA will be dissolved by then. When you need to retrieve one, use some needle nose pliers or a dental pick with a hook to extract it from the jar. Drain any leftover acetone from the tip and let it air dry for a few minutes before use. Remember to use a plastic jar to reduce breakage, and follow all the safety warnings on the container of acetone.

After you've built up a supply of them from successive purchases of CA, you can swap them out midway through a building session to keep things moving.

—Wing Busters Model Airplane Club, Massachusetts

Scale Plans Building for the Novice: Part 6

By Jerry Bates, www.rcscalebuilder.com

Installing canopies, windshields, and windows

This is an area that can bring your model to life if done well. We will only be discussing fixed canopies, windshields, and side windows for high-wing cabin aircraft. In most instances, you can install these items after the model has been painted.

High-Wing Cabin Airplanes: The windshield and side windows are normally cut from a sheet of clear plastic and installed in place on the model. Some plans do not have a windshield pattern. In either case, you should first make a windshield pattern from cardboard. I like to use the cardboard from the back of a writing paper tablet. Leave about ¼ inch of material at the top and sides to attach it to the airframe. You may need to crimp the top and side edges to get a good, tight fit. Trim the pattern until you have achieved a good fit and then trace the outline on the plastic with a fine-line, felt-tip pen and cut the plastic windshield to match.

You should use an adhesive specially formulated for gluing clear plastics to your model. These adhesives dry clear, will fill voids, and are flexible when dry. The two most popular are J&Z R/C-56 Super Z Glue and Pacer Canopy Glue. Both are available from Tower Hobbies.

Apply a bead of the glue to the top and side edges of the plastic windshield to hold it in place. I like to put shortened straight pins along the side and top edges through the plastic into the airframe at roughly ½ inch from center to stake the windshield in place.

Apply a bead of canopy glue to the junction of the windshield and the fuselage. You can trim the attachment areas by using a trim tape that matches the color of the model.

The side windows can be installed on the outside of the model or from the inside if the plans designer has made provisions to do so.

Vacuum-Formed Canopies: Vacuum-formed canopies normally require trimming to fit the model. Carefully trim the perimeter of the canopy a little at a time until it sets firmly all around the model. Use the Pacer Canopy Glue for the installation.

The canopy framework must be applied to the canopy. Some canopies have raised framework and some have no framework. You can apply the framework with different width trim tapes that match the color of the model.

You also can mask off the canopy and paint the framework on. Carefully lay out the canopy framework with trim tape. Mask the remainder of the canopy. Remove the trim tape. Make sure the masking tape is firmly pressed in place.

The best masking tape to use is the blue, low-tack stuff sold in automotive paint supply stores. Do not use drafting tape and inexpensive hardware/drug store masking tapes because you may not be able to get it off without damaging the canopy. You will need to mask the remainder of your model before spraying the canopy framework.

Clean the areas to be painted with a rag dampened with denatured alcohol. After the areas are dry, spray several light coats of paint on the canopy framing.

Fixing Scratched Canopies: Have no fear if you have scratched you canopy or would like to use an old one that has lost its luster. If it is a small scratch you can attempt to polish it out using toothpaste and a wet cloth. Most of us are not that lucky, though.

Here is a tip for the more severe cases: Sand out the deep scratches with 120-grit wet and dry paper. Do all sanding wet. Wet the paper in a container of water every so often while you are using it. Next, sand the entire outside surface of the canopy with 320-grit wet and dry paper. Follow this with 400-grit and 600-grit paper.

Wash the canopy in warm, soapy water and rinse to remove all soap.

Next, clearcoat the canopy. Make sure you are in a dust-free environment. Use a high-gloss clear, non-yellowing, two-part epoxy, or two-part urethane paint. Thin it and spray it. Start with a light

tack coat and allow 10 to 15 minutes to start setting up, then apply one wet coat.

You will be amazed with the results.

Painting

There are many types of paints and primers available. I will discuss some of the major ones used for our models. Use all the paint products provided by the manufacturer. The company can furnish compatible base coats, finish coats, and thinners. Do not attempt to mix and match products from various manufacturers unless you have previously succeeded.

In general, all finish painting should be accomplished by spraying the paint. One exception is dope finish. Unless you are experienced in the spray application of dope, use a brush. There are various ways to spray paint—from the use of aerosol paint cans, to small compressors with storage tanks and a spray gun.

Painting with aerosol cans may be the method you choose if you don't have a compressor, and do not want, to buy one. It will take more spray cans to complete the job than you think. Spray several light coats on the model, allowing it to dry between coats. The last application of paint should be a light coat, followed by a wet coat to bring out the gloss.

When choosing between an airbrush and compressor, and a larger compressor and spray gun, I recommend the latter. Two reasons for this are the economic impact, and the large range of use for the compressor and gun combination. A good air brush/compressor setup will often cost more than a compressor and spray gun. The airbrush has limited use when it comes to painting large areas such as wings, etc.

I suggest a tank-mounted compressor with at least a 2-hp motor and a minimum of a 6-gallon air storage vessel. Look for an air delivery rate exceeding 3 cubic feet a minute at 40 pounds per square foot gauge pressure. Discount stores such as Harbor Freight Tools have similar compressors for less than $10. You can also find a cup gun and hose there for less than $20.

Primers: The primers are used to give the model a smooth surface and prepare it for finish painting. I prefer to use automotive acrylic lacquer primer because it has excellent fill and coverage and sands easily. Many of the hobby paint manufacturers also have a line of primers specifically for finish paints.

If you have chosen a light finish for your model, I suggest applying a basecoat of light-colored primer to provide a surface that will be give the finish coat an even overall color.

Finish Paints: When selecting finish paint for your model, I suggest you use paint from one of the companies that supplies products specifically for our hobby. These paints have finer pigments than commercially available paints. They offer better coverage and lower weight. Do not use hardware store paints.

Water-Based Paint: Until recently, the trend has been to use water-based latex house paint for models. Now, there are several water-based hobby paints available. One of the preferred manufacturers for military aircraft colors is WarbirdColors. This paint is a two-part, water reducible, polyurethane. The paints are supplied to the correct color matches for military aircraft of nine nations. They are thinned with water, and water is used for cleanup. Nelson Hobby paint from Nelson Hobby Direct is a supplier of similar paint. It is available in a wide range of colors for both civil and military aircraft.

Traditional Polyurethanes: Chevron Perfect Paint has a great line of polyurethane paints. There is a wide color range available for both civil and military aircraft.

Epoxies: K&B Manufacturing Ultrapoxy paint system and Klass Kote paints make a full line of epoxy paints and primers. These are two-part, air-dyed epoxy paints available in a standard range of colors and can be mixed to provide colors for military models.

Enamel: Sig Manufacturing Plastinamel is specially formulated enamel that will provide a light, high-gloss finish. It comes in eight colors and can be mixed to produce shades as required.

Dope: Sig Manufacturing has a large line of nitrate and butyrate dope products designed for the modeler. The preferred "Sig System" is to use the manufacturer's dopes and Sig Koverall fabric.

Randolph Aircraft Products is the largest and oldest supplier of dopes for full-scale aircraft. Randolph dope products are ideal for modeling use. The preferred system is the use of Randolph dope products and Ceconite Light (uncertified) fabric covering. Ceconite fabric and Randolph dope are available from Aircraft Spruce and Specialty. Visit the company's website, www.aircraftspruce.com, to order a free catalog.

Automotive Urethane Paint: An automobile paint store can mix your finish colors to match the Federal Standard (FS) numbers of the colors used on the full-scale airplane. Basecoat/clearcoat urethane paint with a flat, clear top coat is a popular option and is fuel-proof. Don't be alarmed if after applying the basecoat, it looks blotchy and the wrong shade. The appearance will improve when the clearcoat is applied. Various types of clear topcoat are available—from a high gloss "wet look," to dead flat. Be sure to tell the paint store what look you want to achieve.

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. Even though it is useful, epoxy 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. Mis-proportioning 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 and 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 micro balloons for thickening epoxy because they are readily available and add little weight. Thickened epoxy can be used to make fillets or to fill gaps.

Five minutes, 15 minutes, 30 minutes, more? Epoxy comes in formulations for different curing times. The times listed on the packages 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 five-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, five-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.

WARBIRDS
OVER THE ROCKIES
9TH ANNUAL

SEPT. 2012
28, 29 & 30
9 AM - 5 PM DAILY
JUST NORTH OF
DENVER

BANQUET GUEST SPEAKER
TUSKEGEE AIRMAN- COL. CHARLES MCGEE
HIGHEST 3 WAR TOTAL
OF FIGHTER COMBAT MISSIONS
OF ANY PILOT IN U.S.A.F. HISTORY!
P-51 RED TAIL
KITTEN

BIG 3 DAYS

PREREGISTRATION $50 — $60 At Field

- OPEN TO ANY WARBIRD WITH MILITARY PAINT SCHEME
- FULL-SIZED FLY OVERS
- SPECTACULAR PYRO SHOW
- VENDOR TENTS WITH LOTS OF GREAT STUFF!
- SIX FLIGHT LINES.
- 800X70 PAVED RUNWAY
- PRIME RIB BANQUET SAT
- CAMPING.
- OVERNIGHT STORAGE TENTS
- AMA SANCTION #12-0794

★★★ ONLINE REGISTRATION & EVENT INFO. ★★★

WARBIRDSOVERTHEROCKIES.COM

Model Airplane News · Aero Works · ZAP · KMP Kondor Model Products · robart · JR DSM · Horizon Hobby · FTE Frank Tiano Enterprises

ONE EIGHTH AIR FORCE
FALL SCALE FLY-IN

ARIZONA MODEL AVIATORS CLUB FIELD

LOCATED IN USERY PARK NEAR APACHE JUNCTION

1/2 MILE NORTH OF BROWN RD. ON MERIDIAN RD.

REGISTRATION STARTS SATURDAY AT 0730 HRS
$20 PER PILOT REGISTRATION FEE
AMA REQUIRED
AMA SANCTION #00-0000 Applied for.

ALL TYPES OF SCALE MODELS WELCOME
100db LIMIT
NO 3d FLYING!

ONE

www.oneeighthairforce.org

FEATURING

SATURDAY NIGHT DINNER AT THE FIELD

OEAF'S UNIQUE AWARDS IN MANY CATEGORIES

OCTOBER 20-21, 2012

CD JOHN GEYER 602-810-1767
jegeyer@cox.net

COMMANDER HOWARD KENNEDY 602-361-8475
bushpilot1443@yahoo.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	

HOBBY BENCH COMPLETE HOBBY & CRAFT CENTER

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

Lets welcome our new officers photos!

Your photos and articles are welcome.

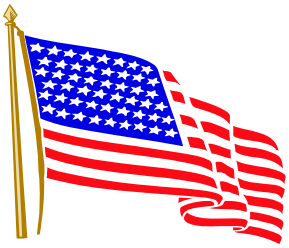
Would you like to be notified when the SLOW ROLL new issue is available? Give Gene your e-mail address.
AZ49ER@COX.NET

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

This Month Issue

Time to get new photos of the officers for the JULY SLOW ROLL. OK guys a big smile now!

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*** *page to see more.*



THE SLOW ROLL

Club Officers 2011-2012

Frank Moskowitz, President
John Geyer, Vice President
Gene Peterson, Treasurer
Jim McEwen, Secretary
Ken Justice, Safety Officer

Walt Freese,
Website Supervisor
Please check your Membership list for Phone numbers.

Board of Directors

Charlie Beverson '12-14
Loren Counce Jr. '12-14
Mike Peck '12-14
Tony Quist '12-14
Bob Bayless '11-13
Wayne Layne '11-13
Ron Thomas '11-13
Ernie Mack '11-13
Eric Stevens '11-13

Sun Valley Fliers

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

WWW.SUNVALLEY FLIERS.COM

38 YEARS

CHARTERED #921

SINCE DECEMBER 1974

First Class Mail

To: