



Hi'dy ho, boys and girls!

It's February and the start of a whole new show season. We here in central SC are well positioned to travel to the big events this year, being less than a day's drive from both Atlanta and this year's AMPS International Convention in Fredericksburg, VA. Also our AMPS friends up in Fayetteville, NC are going to host their show again in August. (Not to mention the IPMS Nationals this year in Virginia Beach and the IPMS R-12 Regionals in the Greenville-Spartanburg area!)

Yes indeed, 2014 is shaping up to be a very good show year for us.

#### **Last Meeting's Minutes:**

Our last meeting was held at 6:00 pm, January 08, 2013. We had 18 members (including one new member) in attendance, and those members brought in a number of models to show and tell. The raffle prize was the AFV Club Churchill Mk IV (a VERY nice kit that was graciously donated by Keith Frape). Rebecca was the winner.

During the meeting: 1) We got an up-date on the status of planning by our convention committee. 2) We discussed tentative travel and lodging plans for those members planning to attend the AMPS shows in Atlanta and Fredericksburg. 3) We started collecting dues for 2014. 4) We held a vote to sponsor one of the AMPS International Convention's special awards – Best Soviet / Russian. Scott Amey, our treasurer, will send the sponsorship money, \$60, to Glen Martin, the awards sponsor coordinator. 5) Paul Lovell gave an excellent demo-how-to on scratch-building scale brass fuel drums. This was quite the metal crafting demonstration, and I know we all learned a lot! Thanks, Paul!

Welcome to our newest member, Stephen Siefert! Stephen traveled down to the meeting from NC with Carl, who, I'm sure, is very happy to now have someone to share that long drive with! For Show & Tell, Stephen blew us all away with his scratch-built, wooden Harley Davidson Knuckle-head engine. This was a true work of art!

Be sure to check out the meeting photos on our website for all the models brought in and for Paul's demo.

#### **Next Meeting's Agenda:**

Our next regular meeting will be at 6:00 pm, Wednesday, 12 February, 2014 at the HobbyTown USA store on Two Notch Road, Columbia.

6:00 pm (1800): Meeting starts / Admin Business – 1) Report on the 2016 convention bid by the convention committee. 2) Discuss any mutual travel and hotel arrangements for the Atlanta AMPS Regional Show, 14-16 February, 2014. 3) Reminder that our first intra-club contest will be held during the March, 2014 meeting. The theme is “Anything American” (AMPS qualifying entries, natch...) 4) Reminder that club dues for 2014 are due. There’s no change in the amount – still just \$12 for the year. See Scott to pay. 5) Treasurer’s report on dues collected and the status of the AMPS special award funds. 6) Notice about the new date for the up-coming AMPS All-American chapter’s show, August 30, 2014. 7) Discussion about the up-coming AMPS elections.

REMINDER: The HobbyTown USA store will close at 7:00 pm (1900). This means that all purchases at the store must be made before then so that the cash registers can be closed.

6:15 pm (1810): Show & Tell: Builds and WIPs.

6:50 pm (1850): Break: Shopping & Social Mixer. Cash registers close at 7:00 pm.

7:10 pm (1910): Reconvene: Continue Show & Tell: Builds and WIPs

8:00 pm (2000): Meeting ends (officially – but we’ll carry-on as long as the store will stay open)

*Regular meetings are held on 2<sup>nd</sup> Wednesdays of each month at 6:00 pm (1800) at the HobbyTown USA store, 10120 Two Notch Road, Suite 5, Columbia, SC 29223, (803) 736-0959.*

### Up-coming Events:

**Feb 12, 2014**, 6:00 pm (1800): AMPS meeting at HobbyTown USA store on Two Notch Road.

**Feb 14-16, 2014:** AMPS Atlanta show in cooperation with the Atlanta Military Figure Society. The 2014 show theme is "People Movers" (combat troop carriers, wheeled or tracked, any era). The Atlanta Marriott Century Center, Atlanta, GA.

**Mar 12, 2014**, 6:00 pm (1800): AMPS meeting at HobbyTown USA store on Two Notch Road. **Our first Intra-Club Contest / Group Build!** Theme – Any US Subject (AMPS eligible, of course).

**Apr 3-5, 2014:** AMPS International Convention, Fredericksburg Hospitality House (Convention Center), Fredericksburg, VA. Convention theme: "Tanks in Film."

**Apr 09, 2014**, 6:00 pm (1800): AMPS meeting at HobbyTown USA store on Two Notch Road.

**May 14, 2014**, 6:00 pm (1800): AMPS meeting at HobbyTown USA store on Two Notch Road.

**Jun 11, 2014**, 6:00 pm (1800): AMPS meeting at HobbyTown USA store on Two Notch Road.

**Jul 09, 2014**, 6:00 pm (1800): AMPS meeting at HobbyTown USA store on Two Notch Road. **Intra-club contest / group build.** Theme – Any T-44 to T-62 Family AFV (T-44, 54, 55, and 62 and vehicles built on that chassis).

**Aug 13, 2014**, 6:00 pm (1800): AMPS meeting at HobbyTown USA store on Two Notch Road.

**Aug 30, 2014:** AMPS All-American contest and show, Fayetteville, NC. This show will be a unilateral AMPS effort.

**Sep 10, 2014**, 6:00 pm (1800): AMPS meeting at HobbyTown USA store on Two Notch Road.

**Oct 08, 2014**, 6:00 pm (1800): AMPS meeting at HobbyTown USA store on Two Notch Road.

**Nov 12, 2014**, 6:00 pm (1800): AMPS meeting at HobbyTown USA store on Two Notch Road. **Intra-club contest / group-build.** Theme – Any Light Tank 20 tons and under (any era, nationality, or scale).

**Dec 10, 2014**, 6:00 pm (1800): AMPS Christmas Party at HobbyTown USA store on Two Notch Road.

### **AMPS 2014 Best Theme Award Guidance**

*The following guidance was posted by the AMPS Chief Judge, Mike Petty, on January 30, 2014 on the AMPS website.*

The general criteria for judging the Best Theme Award is contained on page 6 of the AMPS Contest Rules. For this year only, we are further defining this criteria as follows:

**Best Theme Award.** The theme for the 2014 AMPS International Convention is Tank on Film. This is given to the model that most appropriately represents the theme selected for the convention. It may be given to either an INTERMEDIATE or ADVANCED level entry. In order to qualify for this year's Best Theme Award, entrants must provide the judges with pictorial evidence that their model appeared on film. This pictorial evidence could include screen shot from a movie, clip from a movie, or copy of a movie promotion which represents a one for one likeness of the model being considered. The burden of proof is on the modeler.

Also please note, in 2013 the AMPS E-Board decided starting with the 2014 International Convention all entrants in the model contest must be AMPS members. You can join AMPS or renew your membership through the AMPS web-site or at the International Convention.

We are looking to have a great 20th anniversary event in Fredericksburg, VA in just a couple of months.

Mike Petty  
AMPS  
Chief Judge  
2nd VP, US South Region

### **An Offer from Member Dave Varettoni**

Dave has extended an offer to any club member who would like for Dave to take his models to either Atlanta or Fredericksburg and to enter them into those shows. Dave will register your models and then recover your score sheets and models at the end of the show.

You will, of course, have to fill out the registration and entry forms and give Dave the registration fees up-front, but if you can't make it to either of these shows, this is a good way to get your models judged.

Space is limited, and first come, first served. Contact Dave directly if you're interested.



## Airbrush Trouble Shooting – Understanding the Basics of How Your Airbrush Works

I'm often surprised by the questions that I read online posted by modelers looking for advice in resolving simple, basic airbrushing problems. Perhaps it's today's culture of instant gratification that's the source of these questions, but I'm inclined to believe that most of the questioners simply don't understand what's going on with their airbrushes. These guys have invested the money in the equipment but not invested the time in learning what they've bought into. It's similar to the same kinds of questions that are posed by guys who buy the latest proprietary "fad" weathering and finishing products but then get stymied when it comes to how to use those products. They've spent the money on something as if it's a magic potion or totem and then get disappointed when the spell doesn't give them magical results.

Knowledge, understanding, practice and experience are the keys to developing new skills or greater proficiency with the skills you already possess. The currency you have to spend is – time not money. Take the time to learn to use your tools and to understand the "why" of what you're doing, and the "how" will come naturally.

Airbrushes are not mysterious. They're not magical. The mere ownership or possession of one will not create any sort of fine finish. Airbrushes are simple mechanical tools that operate on set principles. Their operation and function is totally predictable and manageable – if you understand them.

There are only a set number of variables that can be adjusted with any airbrush while using any paint. If we assume that mechanical problems have been ruled out and the paint and reducer are compatible, then these are the variables that you are working with:

1) **Air pressure** – Air pressure is controlled at the compressor and or with the airbrush trigger.

(Note: If you're using a single-action AB and a diaphragm-type compressor, then compressor air pressure is set and does not change. All other variables must be changed to accommodate this set pressure.)

2) **Paint flow** – Paint flow is controlled by the airbrush needle and tip by way of the adjusting nut or the trigger. Tip and needle size also establish the maximum paint flow possible.

3) **Paint viscosity** – Viscosity is controlled by the operator when he reduces (i.e. thins) the paint for spraying.

4) **Distance from the airbrush tip to the painted surface** – The distance that the airbrush is held from the surface is controlled by the operator.

5) **Speed that the airbrush is moved across the painted surface** – Again, this is controlled by the operator.

6) **Drying time of the paint** – Drying time is affected by paint viscosity, the reducer (thinner), paint volume, humidity and temperature. When the drying time is too short, all kinds of problems can result.

All of these variables can be combined in differing degrees to successfully accomplish most of the same general effects. **This means that no single variable is the most important.** (Even a single-action AB and diaphragm-type compressor combination allows most of these variables to be adjusted.)

For example, if the paint viscosity is too great (i.e. the paint is too "thick") and the AB will not spray, the operator: 1) can increase the air pressure (at the compressor or with the trigger), or 2) he can open the paint tip up (with the trigger or the adjusting nut), or 3) he can reduce the paint, or 4) he can do some combination of the previous three.

However, there are some "rules of thumb" that can be turned to when sorting out problems or trying to achieve some particular effect. These rules also tell us how the AB system works:

- 1) Fine lines are painted close to the surface.
- 2) Wider patterns are painted farther away from the surface.
- 3) The closer the tip is to the surface, the less paint flow and air pressure is needed or desired.
- 4) The farther away the tip is from the surface, the more paint flow and pressure are needed.
- 5) Higher air pressure can spray heavier viscosity ("thicker") paint.
- 6) Lower air pressure can spray lighter or lower viscosity ("thinner") paint.
- 7) Heavier viscosity paint requires a larger tip opening.
- 8) Lighter viscosity paint requires a smaller tip opening.
- 9) Greater paint flow requires a faster surface speed and or greater distance.
- 10) Lesser paint flow allows a slower surface speed and or closer distance.

Using these rules of thumb, we can see that to paint fine lines: the paint viscosity should be low, the air pressure should be low, the paint flow should be low, the tip is held close to the surface, and the speed across the surface should be moderate to fast. Because the paint viscosity is low, it is sometimes necessary to follow the same line several times to get good coverage (a lot depends on the back ground and line colors).

Common AB problems can be resolved by thinking through how the variables affect basic operation and how they interact with each other.

**Overspray** is usually caused by air pressure that's too high coupled with high paint flow and too much distance from the surface. Tighter spray patterns are achieved by moving the tip closer which may require less paint volume, lower air pressure, lighter viscosity, and faster surface speed.

(Note: High pressure "tight" patterns require very fast surface speeds and close distances. The faster surface speed demands a practiced eye and a steady hand to "free hand" the desired pattern. However, the "high pressure" technique will allow for heavier viscosity paint producing better single coat coverage.)

**Spattering** around the edges of the paint spray pattern is usually caused by too much paint flow, too low air pressure, too low paint viscosity or a combination of all three. To eliminate or mitigate spattering, reduce the paint flow, increase the air pressure and or increase the paint viscosity or, again, make a slight change in all three.

Spattering from paint build up on the AB tip is caused by 1) opening the paint flow on a double-action AB before starting the air flow, or 2) too low paint viscosity, or 3) too low air pressure for the paint flow. Sometimes acrylic paints that are drying too fast will build up on the paint tip and create conditions for drops on the tip to also form. Adjusting the paint viscosity and using a drying retarder can sometimes help. Usually you can't do much to lower the temperature or increase the humidity, but if you can, that can also help here.

Generally, the cure for tip spattering is to always push down the trigger to start the air flow before pulling the trigger to the rear to open up the paint flow. Using a cotton swab wetted with thinners to clean the AB tip periodically can sometimes help to get you through the painting session without having to dump the paint and starting over.

**Paint runs** are caused by too much paint (too high volume, too much flow, and or too little distance) applied in too small an area (too slow surface speed). Gravity then pulls the paint downward creating the run. Lower the volume, decrease the flow, increase the distance or do all three to cure runs.

**"Spidering"** is a special case of paint runs radiating out from a single point rather than down in the direction of gravity. The cause is the same – too much paint volume on the surface at the point of the runs, in this case, by holding the AB stationary in one place and or too close to the surface while starting the spraying. This loads the surface with a puddle of paint which the air pressure then pushes into runs radiating from the point where the AB is directed.

The cure for "spidering" can be any one or a combination of the following: Keep the AB moving across the surface, lower the air pressure, increase the distance, and or lower the paint flow.

Starting the spray pass off the surface, continuing across the surface, and ending the pass off the surface (i.e. using the correct general spray painting technique) will almost totally eliminate any chance of "spidering" and many other runs. For those cases, like free-hand camouflage patterns, where the pass must start and stop over the surface, attention to trigger control, paint viscosity, and surface speed are the keys.

**"Orange Peel"** or "white, powdery flat coats" are caused by the atomized paint partially drying between the AB and the surface. The reason is too high air pressure, too much distance from the surface, paint drying time is too fast. The cures are: reduce air pressure and or close the distance. This combination of cures often requires speeding up the surface speed since the volume of paint onto the surface is increased. Often, the paint-reducer (i.e. the "thinner" used) combination cannot be changed to affect drying time. However, the reducing (thinning) ratio can sometimes be changed to increase the viscosity causing the paint to dry slightly slower (air pressure might have to be increased as a result of the higher viscosity). Drying retarders are another option.

Some lacquer paints react in the opposite manner to changes in paint viscosity, and to eliminate or mitigate orange peel with those types of paints, increase the reducing ratio to make the paint lower in viscosity. The increased reducer – thinner – takes longer to evaporate and allows the atomized paint to reach the surface while it is still wet and able to self-level. Note that this increases the potential for

spatters and runs, so paint flow will need to be adjusted accordingly (assuming and increase in air pressure is not desirable so as to not exacerbate the orange peel problem).

When trouble shooting AB problems, the key is to understand how the system works and how changing any one variable will affect the rest. Usually, changing only one of the first three variables (air pressure, paint flow, paint viscosity) will produce some positive results, but possibly not achieve the desired effect. Although you can make slight changes in several variables that will combine to fix a problem, often you will not get the final effect that you want going that route, and sometimes you will create a new and different problem.

So, for example, if the AB will not spray (and mechanical issues have been ruled out) then either: Reduce the paint more to make it "thinner," OR increase the air pressure, OR open up the tip more. At the same surface distance and speed (on a test piece) you should get some positive change. If you don't get enough improvement to get an acceptable result, stick with the same change just more of it until you do.

(If you max out the possible change in that variable with no positive improvement at all, you've likely misidentified the kind of problem. Best to go back to square one and start all over.)

Once the AB is spraying, then you can then judge the effects and adjust either or both of the other two variables (in this example, pressure or flow) to get an improvement towards the desired effect. Then judge how speed and distance are affecting the desired pattern and make an adjustment there. If the desired effect is still not achieved, then judge what needs to be changed in the first three variables and proceed through these steps again working towards the final desired effect. Once you have the effect "dialed in," make some notes on pressure, paint viscosity, flow rate, spray distance and spray speed so that you will have a starting place to replicate the same effect later. Add these notes to you color mixes, etc.

If you try to change too many variables at one time, you wind up "chasing your own tail." Proceed methodically and logically, and you will be able to resolve your problems to the maximum capability of your AB and individual skills.

Often when guys get some experience, they tend to use the same air pressure and flow rates and only ever vary their paint viscosity and application distance and speeds for different effects. Alternatively, some guys keep viscosity nearly constant and play around with air pressure and flow rates to get different effects, and still others only ever vary speed and distance. This is why when guys ask questions about air pressure or paint viscosity they get as many different answers as guys answering. Why? Because each of those answers works for the guy who submitted it at whatever other variables he usually keeps constant.

This is why it's important for you to understand what's actually going on and to learn to trouble-shoot for yourself. You, your AB, your compressor, and the paints and thinners you use along with the environment you work in all form a unique, to you, system that you have to understand to get the best results.

Happy Modeling!

Mike Roof  
AMPS #1632

## **“The Day Room”**

*In the US military, most company-level units have a “day room” in the barracks where the troops hang-out, relax, and BS. When you want to learn the latest in “rumor control,” you swing by the day room and chat-up the Joes and Janes hanging out there. They might not always get it right, but they’re always willing to tell ya just what they think! So, welcome to “the Day Room...”*

O-kee-dokie... That just about wraps it up for this month, but, before I close, a couple of other things–

First, I want to remind everyone about the AMPS national elections coming up in March. This year our South Region 2 VP, Mike Petty, is up for reelection, as well as the AMPS 1 VP, Chuck Aleshire and the AMPS Secretary, Mark Corbett.

I'd like to make the strongest endorsement possible for all three of these guys. Each one has done excellent work in these offices over the last two years. Each one has also been very supportive of our region and chapter and, in the case of Mark and Mike, have worked directly to take care of membership issues for some of our club mates. I believe that each of them not only deserves another term, but that each will continue the excellent work that he has done for our society, our region, our club and its members.

In March, when the on-line voting period opens, I highly encourage each of you to show your support and thanks by voting for Mike Petty, Chuck Aleshire and Mark Corbett. The voting period will be announced and voting will take place on the AMPS website.

Finally, I'd like to encourage all of you to lend a hand at any of the shows that you're attending this year. Especially with the AMPS shows in Atlanta, Fredericksburg, and Fayetteville, if you're fortunate enough to attend, be sure to sign up and do a judging shift or two, and if you have some more free time, ask around and see if you can volunteer to lend a hand somewhere else like Ram Rod or Runner.

I know that Tony and Rebecca would love to see some local faces volunteering to give them a hand with the raffle in Fredericksburg this year. Jeff Nelson, Dave Varettoni, and I would also certainly appreciate local volunteers signing up and helping us with the various judging shifts that we'll be ACJ'ing, too (dioramas, vignettes, and regular categories).

See ya Wednesday and Happy Modeling!

***Mike Roof***

Chapter Contact  
AMPS Central SC "Wildcats"