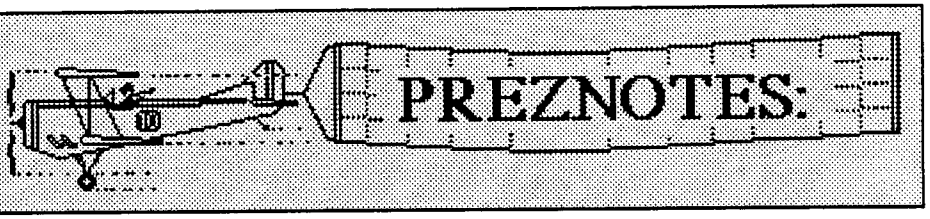
Seattle Chapter News

Seattle Chapter
IPMS-USA
November, 1997



Don't the recent articles our intrepid newsletter editor has written inspire you to build? The newsletter issue featuring the accurate Miniatures SBD was quite a gem and I for one am glad for the information Bob provided. I have moved my kit nearer to the top of the "to build soon" pile because of the article. However, I for one would like to ask the hundred or so of you that receive this tome to to contribute some sort of story or article(it certainly does not have to be as lengthy as the SBD article) for future issues as we cannot ask Bob to go through his entire library of information to come up with a new 8 page article every month. Besides, most of his information is on US Navy aircraft and not all the readers build Navy types...A Panzerspahwagen in Navy 3-tone? I don't think so. One reason I ask this is that he is working on the Accurate Miniatures Avenger. It is the first model I have seen him work on in 10 years and I want to see it finished! If he has to take all his time writing articles for the newsletter instead of just editing, he'll never get it finished. So, any small kit review or product information or modeling technique you have to pass on, please do so. I want to see Bob finish his Avenger!

One of the duties I carry in addition to President for Life is that of chapter contact and as such I receive chapter information and meeting notices from other chapters in the region and occasionally newsletters from chapters outside our region. One of the better local newsletters is put together by George Haase of IPMS/Tacoma. It is always an interesting read and if you would like to obtain their publication track George down at our next Seattle meeting. He is always there. I will endeavor to bring all the other meeting notices and information on the other chapters in our region for your examination as well.

I just got a call from my better half(I'm doing this at work) telling me there was a just great piece about model building on a show called Start to Finish, on the Discovery channel. The segment featured model builder Derek Brown and showed his modeling room, kit collection("wall o' kits"), and some of his completed projects, including a few that Jill remembers from past national conventions. He demonstrated modeling techniques, various tools and at the end of the segment was a terrific plug for IPMS/USA. IPMS/Seattle received some TV coverage many years ago and perhaps I may pursue doing it again with some of the local broadcast stations.

Lastly...do you, the members, have any feelings or opinions on the way the meetings are run? Would you like the business portion of the meetings to be shorter or longer? Do you think the vendors should shut down completely during show & tell? Do you like show & tell? Would you like to see guest speakers or seminars? Would you rather have a new face conduct the business portion of the meeting? If you have any comments or suggestions let me know.

See you at the meeting.
Terry

In This Issue:

Prez's Notes	1
1997-98 Meeting Dates	2
Painting & Finishing Models	3-5
Kit & Book Reviews	7-11
Kit Rumors	12-13
Modeler's Notes	14-17
Internet Notes	17
USN Carriers	18
Pentathlon '98	19

Seattle Chapter Contacts

President:
Terry D. Moore
3612 201st Pl. S.W.
Lynnwood, WA 98036
Ph: 774-6343

Vice President:
Keith Laird
528 South 2nd Ave
Kent, WA 98032
Ph: 854-9148

Treasurer:
Norm Filer
16510 N.E. 99th
Redmond, WA 98052
Ph: 885-7213
Net: nfiler@wport.com

Editor:
Bob LaBouy
2777 70th Place S.E.
Mercer Island, WA 98040
Ph: 232-7784
Net: ok3wirebob@aol.com

This is the "official" publication of the Seattle Chapter, IPMS-USA. As such, it serves as the voice of our Chapter and depends largely upon the generous contributions of our members for articles, comments, club news, activities, any rumors or facts involving plastic scale modeling and other contributions. Our meetings are normally held each month (see the calendar below for actual dates) at the Washington Army National Guard Armory, off 15th Ave. N.W., just to the west side of Queen Anne Hill in Seattle. Our meetings begin at 10:00am and usually last for 2-3 hours. Our meetings are usually very informal and are open to any interested plastic modeler, regardless of your interests. Subscriptions come with payment of your Chapter dues of $12.00 (to Norm Filer, our Treasurer). We also highly recommend our members join and support IPMS-USA, our national organization (dues: adult - $19. and junior - $9.) Any of the folks listed above will gladly assist you with further information about any aspect of our Chapter or Society.

The views and opinions expressed in this newsletter are just that, and do not constitute the official position of our Chapter or IPMS-USA.

You are encouraged (no, begged) to support and submit material to the Editor for this newsletter. He will gladly work with you to see that your material is put into print and included in the newsletter, no matter what your level of computer or writing experience. Please call Bob at 232-7784; we need your input.

Meeting Dates: 1997-98 - KEEP THIS PAGE!

The IPMS/Seattle 1997-98 meeting schedule is as follows. To avoid conflicts with already scheduled IPMS events and National Guard activities at the armory please note that some of our meeting days fall on the third Saturday of the month. Because some of us never seem to know when we will meet, we *strongly recommend* that you cut this page our of your newsletter and paste it up next to the recycle, Mariners, Cheers reruns, Husky home game, lemming return or any other schedules you post in your house.

1997

NOVEMBER 8,1997 (2nd Saturday)

DECEMBER 13,1997 (2nd Saturday)

1998

JANUARY 17,1998 (3rd Saturday)

FEBRUARY 14,1998 (2nd Saturday)

MARCH 14,1998 (2nd Saturday- **SPRING MEET)**

APRIL 11,1998 (2nd Saturday)

MAY 16,1998 (3rd Saturday)

JUNE 13,1998 (2nd Saturday)

JULY 18,1998 (3rd Saturday)

AUGUST 15,1998 (3rd Saturday)

SEPTEMBER 19,1998 (3rd Saturday)

Painting & Finishing Models

by

Ted Holowchuk

Introduction:

I've finally done it! Some time ago, I promised Bob that I would write an article. I made it. This is just the first in a planned series of articles that I hope help will eliminate some of the mystery of painting and finishing models. The equipment, materials, techniques and approach are mine. This "stuff" works for me, as well as for others in our hobby. Some of my ideas may seem unusual, but they are based on experience. The methods, equipment and materials I use provide reasonable and consistent results. Most of my techniques are based on commercial application in the painting and finishing of real life objects. It works for the professionals, so why not for us?

I intend to cover the whole aspect of painting & finishing from my experience (such arrogance). I will cover air supply, exhaust systems, equipment, materials, painting and weathering techniques. I intend to share "philosophy" of building, painting and finishing models. I will begin by explaining my approach to building and painting most any model.

General Notes:

I believe that in order to achieve good, consistent results, it is important to use good quality, reliable equipment, materials, and techniques. We modelers should always follow the "KISS" principle (Keep It Simple, Stupid!). Oh yeah, another important ingredient is time. Stop rushing to complete something for the upcoming show. There will be another show or event later. I see and hear a lot of excuses for poor or sloppy work blamed on "lack of time" or "good enough" attitude.

My approach is to do a very credible job every time. I know this is a hobby and it is for your personal enjoyment. However, striving for good results is also fun. The personal pride of turning out a good model is a satisfying feeling that is one of the rewards of the hobby and should spur you onto better work. Push yourself a little and enjoy the accomplishment. The more effort, the more fun from better results. Just ask the quality builders. You must remember this, (gee, that would make a good line in a song) most model work is not difficult, but it can be time consuming. I work toward a higher standard because it is fun to solve the problems. It doesn't matter to me if anyone ever sees another of my models. I do it for me. Sort of selfish, don't you think? Yes, I am very serious about my modeling but, I don't take it too seriously. I hope you understand the difference?

I know the cost of some of the equipment and materials may seem high. However, all of us spend our money on foolish things (food, rent, fuel, taxes, etc.) as well as the newest kits to hit the hobby shop. We lament the cost, complain that we can't afford it, yet end up buying the latest McBoeing F-99G-2, because we can't live without it. When will we actually build that white elephant?

The equipment and materials you buy should be the best you can afford (buy one or two fewer kits). Buy cheap tools and you get cheap tools! We all know this. Inferior tools are really not worth the cost. A few extra dollars will buy a quality piece of equipment that will provide reliability and a quality job for a long time.

I would encourage each of you to search out and study references (books, plans and photos). This is an area where I am somewhat lacking, but I am learning and working on it.

Lastly, I would also encourage you to ask questions of your fellow modelers. I hope you know that here in the Northwest and especially in our modeling group, we have a number of excellent modelers. I know from first hand experience that all willingly answer any questions and help with any problems. I don't mean to embarrass anyone, but I do feel that these guys deserve some recognition. Now you know who to bug! They have all helped me with numerous problems. The list includes our illustrious IPMS leader, Terry Moore, Jim Schubert, John Frazier, Bill Johnson, Steve & Stan Cozad, George Stray, Les Knerr and on and on. Each one has been an inspiration (even when pointing out one of my goofs).

This list is incomplete. For that I apologize. Seek out and talk to the guys around you.

Now onto the real meat of this series.

Chapter 1: Choose Your Painting System

The Air Supply: In order to use any piece of air operated equipment (e.g. the airbrush), you need a source of air. The air source should provide clean, dry air at a constant pressure and sufficient volume. Most air systems, can provide enough pressure for our use, but not all can provide volume of air or constant pressure. See my note about "pulsing" air supplies below.

(Cont'd on next page)

(Cont'd from prior page)

The Regulator: To provide even pressure you should have a regulator.

The Air Filter: Clean, dry air is a necessity. An air filter and or water trap in your air supply system is a good idea.

The following is a run down of different kinds of air supply systems most of you have heard of or used. Some I will cover only briefly, others I will elaborate on. My biases will come forth.. All systems have pros and cons. Some just have more cons than pros.

Your 5 Choices:

1. Air cans. Freon or whatever: cans of compressed gas that you hook up to your airbrush. High initial pressure, which drops as the can gets cold, ice forms on the can. This system may spit ice or drops of water at a crucial time. These are expensive, throw away cans that have to be replaced often. I do not consider these worth the cost, effort, or problems. Cost $6 - $8 each can.

2. Air Storage Containers. These are rubber inner tubes, compressed air tanks, etc. Like air cans, I consider these to be not worth the effort. Consider these only if you like running down to the local filling station (if you have one) in the middle of a paint session to tank up your deflated tube. You still need a regulator and probably a filter. I recommend you read the Fine Scale Modeler, November 1994 that contains a very good article on air tanks. Cost for an inner tube is free to about $15 depending on your source. A pressure tank costs about $45 at Grainger. [Ed's note: Grainger Industrial is located in King County in serveral places as well as across the country and is primarily a wholesale only business; I recommend you ask Ted for assistance with this resouces]

3. Small, one "lung" compressors. Many modelers are familiar with these units. To use it, you turn it on and let it run. Some will run constantly, others cycle on and off continuously. They are noisy, jump around, maybe even off your bench top. The air supply is usually pulsating and may occasionally "spit" moisture. I am not too fond of this type of equipment. However, they are useable and the expensive ones (with the goodie features) will work satisfactorily. These compressors can be upgraded by adding a regulator and filter. The type of filter, with a (usually) glass or Lexan bowl can act as an accumulator tank and eliminate the "pulsing" air supply. The filter also eliminates the water "spitting." This can be a usable system. The cost (less filter and regulator) can be about $120 to $175 or more.

4. CO^2 Cylinder. These are an excellent, quiet source of dry, clean air/gas. I will not elaborate on this system, because it was covered in an excellent article by Bill Johnson in the Seattle IPMS Newsletter April, 1997 issue. If you don't have the article, talk to Bill Johnson or me for a copy. This system is being used by a number of club members with excellent results. You can expect to pay about $180 for such a system.

5. Air Compressor with storage tank. This is my personal favorite. This system covers all of my modelling needs (painting, casting, cleaning) as well as blowing out the sprinkler system in the fall, inflating my flat tires and putting air in "Kwaakers" my rubber ducky. A storage tank type compressor of about 3/4 to 11/2 hp (horse power) with a 5 - 10 gallon storage tank is available from Sears, Grainger, and most paint/tool supply stores. They are usually a 110/120v,10-15 amp unit that is useable in home electrical outlets. Some can be used at 230v if you have a 230v source. Plugging your compressor into any outlet is OK, but, a dedicated circuit is best if possible to avoid flickering lights or maybe a tripped circuit breaker. Tank compressors, like all compressors can be noisy when running. However, they run only until the upper limit tank pressure is reached (about 115 psi on most of these types). They then shut off and will come back on at the lower pressure (about 80 psi). Running time is usually about 15 seconds to 30 seconds. Useable working time between the cycling, on my compressor with steady use is about 10-15 minutes.

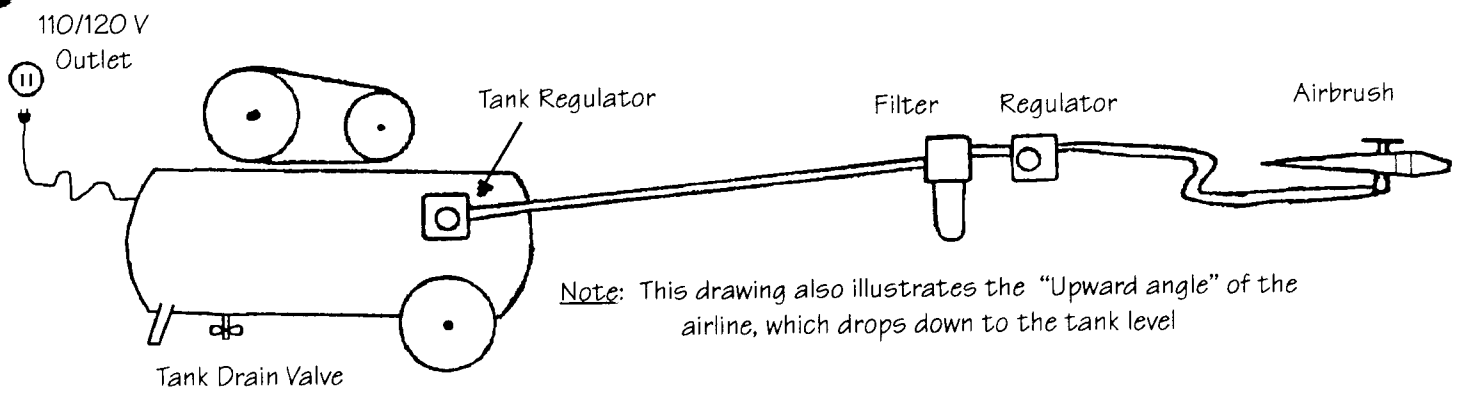
The only problem is with "Murphy's Law". Imagine if you will, it is late and you are into some intricate paint scheme when the compressor kicks in. This causes you to jump a foot into the air and drop the model or squirt a load of paint on your prize winner. Well, I have gotten used to this noise and it doesn't bother me. A few visitors have been startled - to my delight. A way around this noise and surprise problem is to put the compressor in another part of the shop/home and run an air line into your spray area. Actually it is a good idea to run an air line for a little distance. This cools the air before it gets to the airbrush and helps prevent water "spitting" from the air brush. The air line can be rubber air hose, Schedule 40 PVC pipe, copper pipe, or black pipe.

I use Schedule 40 PVC for its ease of installation and low cost. It is not legal to use PVC in commercial installations, but for home use it is fine, especially when you put only 30 - 40 psi into the line. Incidentally, PVC was used commercially here in Washington until about 1988 at which time, because of a few accidents it was made illegal to use. I understand the accidents occurred when the PVC pipe air line was charged with overly high pressure.

Below is a sketch showing a typical compressor, air line regulator filter set up.

[please refer to the sketch on the following page]

Note the drain valve on the tank in Figure 1, open this valve and drain frequently depending on the amount of use. A surprising amount of water is generated by compressing air. Also note the angle of the air line, this angle down to the compressor allows moisture to drain back to the tank where it can be drained off. Most small tank compressors have a regulator on the tank. Use this regulator to set the pressure to the air line at about 30-40 psi. Now, set up your filter, regulator, and airbrush at the end of



Typical Air Compressor and Modeling Air Supply System

the air line (see figure 1) as far from the compressor as is reasonable. Yes, you can use the regulator on the compressor tank, but you should still have a filter/water trap combination after (downwind of) the tank regulator to catch moisture generated by the compressor. It is better to have another regulator with water trap and filter at the end if the line. In order to use my compressor in a portable manner all of my connections are made with air quick disconnects.

References: Finescale Modeller, February 1989 had a very good article covering 17 different types of compressors. A compressor alone will cost about $200 - 275

5-A The Regulator. Any air supply system needs a regulator to control the pressure coming out of the air line to the airbrush. This pressure should be steady and adjustable. I know, I know, you may already have a regulator on the tank. As I said, it is useable, but I find these regulators don't give fine adjustments like a better quality unit. I use a good quality end of line unit for my set up. Remember, this is my recommended, top of the line method that works well with no problems (see Fig 1) A good regulator alone will cost about $25.

5-B Filter/ water trap. In order to clean up your air and remove the moisture a filter/water trap is also a good idea. Some companies offer in line cartridge-like filters. These "toys" do an OK job for a while. I opt for the serious quality type. A decent filter/water trap is best installed at the end of the air line just before the regulator (you should see what the moisture in a regulator can do - rust and crud and a non-working regulator). A good filter will cost about $25. In addition to the individual filter and regulator, there is a combination unit called a "piggy back" filter and regulator. This is a single unit that puts both functions into one piece of equipment. This unit will cost about $45 and I consider it a good idea.

The approximate cost of the entire package; compressor, air filter, regulator, some pipe, hose and fittings will run about $350-400.

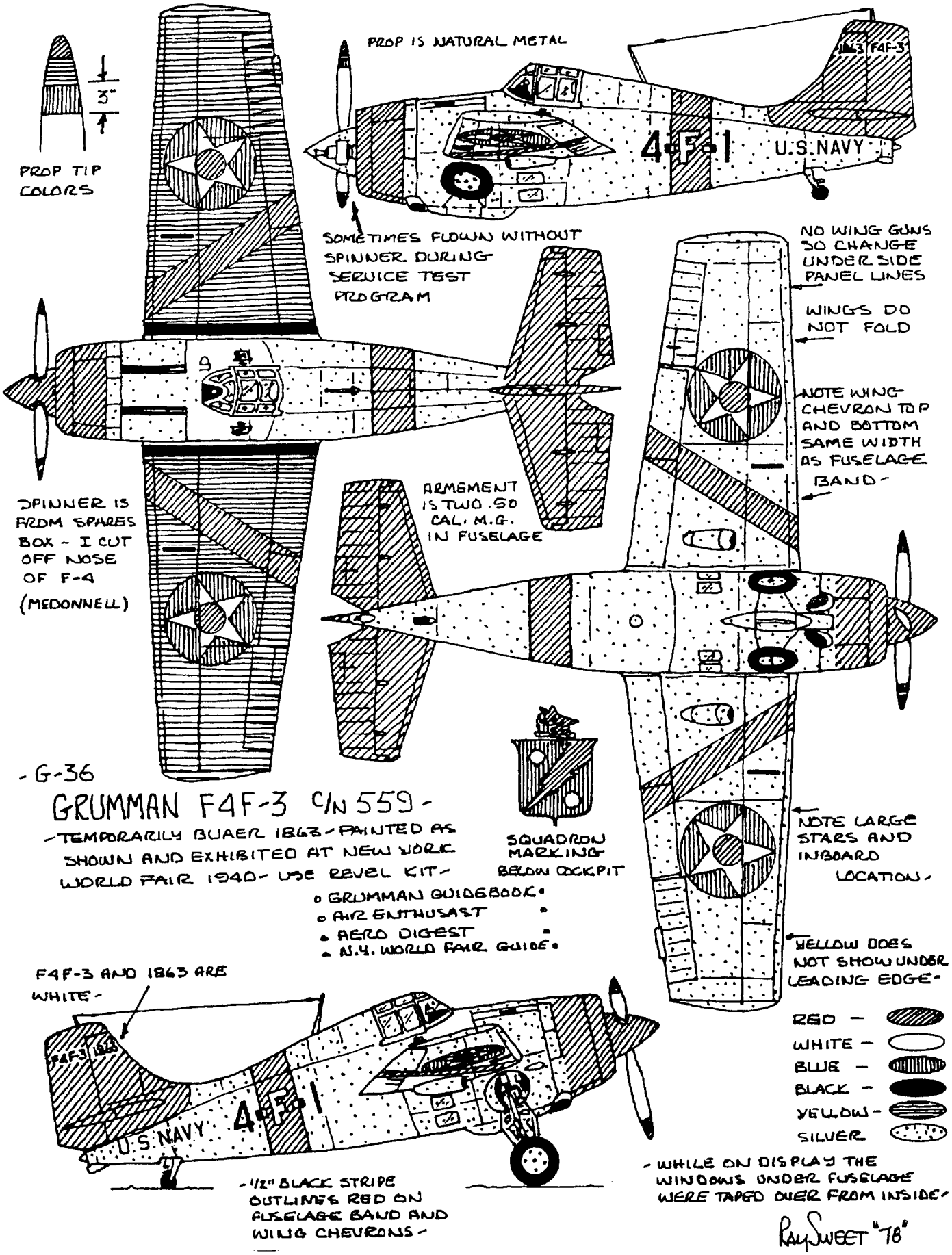
To summarize this section, you have 5 air supply systems to choose from. Systems 1 & 2 are useless and just create headaches. System 3 can be a viable set up if the right combination of equipment is put together (filter and regulator). Systems #4 & 5 are initially the most costly, but are truly the best and most versatile of the lot. Think it over and decide what is best for you.

Also, if you have any questions or comments anything to add (or pick on me for), please feel free to harass me. As an afterthought, (I know I should have done this earlier) all availability and prices of the equipment was based on catalogs and information from Sears, Grainger, Wesco Paint, Badger and Paasche. That is the end of the line! AIR line that is! Just hook up the air brush and as 1-800 Bob Ross would say, "spray a happy little model."

Next we will discuss air exhaust systems (spray booths, airbrushes paint brushes etc...)

Sorry, I am not finished yet.
Ted

Editor's note: "By Modelers, For Modeler's" is the motto of IPMS; this article is living proof of the value of membership in the Society and Seattle Chapter.
Ted, "thank you" for your effort. This, the first part of several articles covering this critical subject, demonstrates Ted's technical capabilities and is indicative of the many fine models he displays at our meetings. Additionally, Ted and his wife Lori have generously opened their home to many of the Chapter and spread this knowledge throughout the Chapter.
Brian Cahill is also congratulated for his contributions to this article. He typed, edited and submitted it virtually "camera ready" for the Chapter Newsletter. "Thanks" to you as well Brian.
As editor, I encourage everyone in the Seattle Chapter to share some aspect of our hobby and modeling interests with the rest of the Chapter. It is the only way we will learn together and grow as modelers.



- G-36

GRUMMAN F4F-3 C/N 559 -

- TEMPORARILY BUAER 1863 - PAINTED AS SHOWN AND EXHIBITED AT NEW YORK WORLD FAIR 1940 - USE REVEL KIT -

- GRUMMAN GUIDEBOOK
- AIR ENTHUSAST
- AERO DIGEST
- N.Y. WORLD FAIR GUIDE

Ray Sweet "78"

Kit Reviews:

Monogram's PRO MODELER B-25J

I had always loved the B-25 Mitchell. As a kid I remember looking at Monograms picture on the box hoping that if I ever got one that mine would turn out as nice.

Twenty years later I went and got my first B-25. I had the option of getting Monogram's re-released B-25 h or Pro Modeler's B-25 J. I chose the later thinking that the more expensive the kit the better the fit would be. At roughly twice as much as the Monogram B-25 H, I was ready to begin work.

The first thing I did when I got it home was remove the fuselage, wings and rear stabilizer portions from their respective part trees and clean them up. Once that was finished I taped the parts together to see how the fit was going to be. Man was I blown away. The fit was the worst I had seen. Needless to say I had to readjust my time table of when I was going to finish.

The interior of the model has raised detail on the inside of the fuselage sides. I worked slowly at first thinking that all that detail was going to be seen. Now that the model is finished I have determined that I spent way too much time on the interior, from the cockpit all the way to the tail gunner's compartment.

While the fuselage dried I turned my attention to the wings. The wing halves went together fairly nicely. However all the alignment pins on all portions of the wing (same is true for the fuselage) were sanded off to get a better shape of the wing. The first problem I ran into while building the wing was that one side of the wing has a cooler in molded into the wing and the other side has a depression of some sort. I looked on the internet for photos to show me if there was supposed to be a cooler or if it was something totally different. The instructions for this section show the leading edge with neither of these features on it. It was not till the open house at McChord AFB that I got a chance to see one up close.

With the wings glued together I began work on the engine nacelles. These pieces were the worst fitting parts of the entire model. The lower wing has a cut in it where the nacelles are to be placed. When centered on the top portion of the wing the gap around the nacelles averaged approximately 1/8th inch. The worst was almost 1/4 inch! Needless to say a lot of glue and putty was used to fill the gap. Because I was not smart enough to put strips if plastic in the gap the joint cracked and meant more sanding gluing and puttying.

With the wings and fuselage ready to put together I went to work on the rear stabilizer section. Once again the fit was lousy and a lot of sanding and trail fitting was used. With the main sub-assemblies put together I was ready to put them together and make a B-25. The wing fit to the fuselage was the best of the entire kit. However my satisfaction was short lived. The rear stabilizer fit to the fuselage was also crappy. But with a lot of sanding and gluing I finally got it to fit. With all the subassemblies glued together I was ready to begin work on masking off the canopies. The biggest problem I had was that the frame lines are not molded in sufficiently. So some guess work was introduced. The canopies do not line up the best either but a little sanding and a lot of white glue as filler seems to solve the problem.

I painted my B-25 using Tamiya olive green and neutral gray. It took a few coats to get all the cracks in the seams filled. A little bit of weathering and gluing of the small pieces and she was almost done. I had to soak the decals in a little liquid soap and water to get them to slide across the painted finish. I did not have to use any setting solution except on the rudder decals.

Overall I would have to say this model tested my patience to the max. My wife was amazed that I actually finished the thing without throwing it in the trash can. If you are going to build a B-25, I would not spend the money on the Pro Modeler kit. I think that you are better off with the Monogram kit unless you have to build a "J" version.

Jay Blair

AMT's 1/72 AC-130U Gunship

The Air Force's special operations fleet recently received the gunship to take them into the 20th century; the AC-130U Spectre. This latest variant of the venerable Herk actually carries less weapons than past gunships, but the new avionics and systems make it far more lethal. New targeting systems allow it to target multiple threats at the same time and fire two different weapons (any choice of the 25mm gatling gun, 40mm bofors or 105mm howitzer) at two different targets simultaneously. AMT's recently released AC-130U (known as the "U-Boat") is a welcome addition to those of us who follow USAF special ops aircraft and Hercules fans in general. The kit is essentially AMT's AC-130H kit with an extra tree for the U model's extra parts. The standard AC-130H fuselage is provided, which leads to some extra work as there is a different boat tail at the rear of the aircraft that must be cut off to make way for the new part. In addition, the 20MM cannon from the AC-130H tree is chopped to make the 25MM trainable cannon for the U-Boat. I'm sure that in 1/72nd scale 5mm is negligible, but the 25mm cannon has five barrels vs. the 20mm's six.

Finish is good; the panel lines are okay and match up with each other on the different halves of the fuselage and wings. However some of the parts on the U model specifac tree look somewhat crude; although a quick work over by a flat file easily fixed this. As this is a new and somewhat covert aircraft, I can't vouch for the accuracy of the interior, but it is fairly spartan. As every picture of the later gunship shows them operating with the ramp up, this shouldn't be a big problem.

Fit is typical AMT; knocking pins and some light flash will slow you down a bit but it's nothing bad for anyone with some basic skills and a bit of patience. It's not a "shake the box and out come the complete kit" model, but it is definitely not on that will take a week or two of dry fitting followed by a month of intense sanding and puttying. I had to glue the wings and fuselage together in stages, but they did not resist and went together quite

well with no pre-sanding before to eliminate that ubiquitous gap between trailing edges of the wing. I did have to add a .10" shim to both wings to take care of small gap and alignment problems, however.

Several of the smaller antennas on the top of the fuselage were missing as well as the two pitot tubes on the left nose. The ADF loops were the most apparent omission, but in this scale their absence isn't very noticeable. The radar warning antennae over the cockpit is shaped wrong; it should be squared off giving it a diamond shape when looked down upon.

The instructions sheets are well drawn out and clearly labeled, although what they labeled "the ammunition box" is actually the fire control center. In addition, every picture I've seen of the boots around the guns show leather boots, and not the flat black that the sheet calls out for. Decals are provided for two aircraft and look okay for the scale; on the real aircraft the Spectre emblem is airbrushed on, a look that is difficult to capture in 1/72.

Overall, I'd say that this is an OK kit. It has its problems, but it is nothing out of the ordinary for anyone who has been spoiled by the recent AM, Tamiya, and Promodeler kits. A little effort will turn this into a nice model that will comfortably add to your display.

Tracy White

WW II French Navy Submarine "SURCOUF"

A 1/350 Scale Resin Kit from SeaWolf -- by Bruce Burden

February, 1942; the Gulf of Mexico. The freighter Thomson Lykes had completed her trip through the Panama Canal late that afternoon. The French submarine Surcouf was on her way to the Panama Canal, where she would have been used in her designed role—harassment of enemy merchant shipping. At approximately 10:30, the Thompson Lykes observed a white flash and 30 seconds later the army transport collided heavily with an unknown vessel. Very close to the port beam a large vessel was observed sinking, its bow being thrust out of the water, and violent underwater explosions were felt aboard the freighter. The career of the Surcouf had come to a sudden and tragic end.

Built in 1929, the Surcouf was a very big (for the times) submarine. She was 360 ft. long overall, displacing 4304 tons submerged. In addition to the standard submarine armament of four 21 inch forward torpedo tubes, the Surcouf was equipped with twin 8 inch guns in a turret forward and, in another turret, four 17.7 inch torpedo tubes. For scouting duties, the Surcouf also carried a Besson MB411 floatplane in a hanger aft of the sail.

The model is from Japan, manufactured and distributed by SeaWolf/Torpedo Models (sorry, I don't do Kanji, so I don't know who is who. The box contains 12 soft (and soapy feeling) resin pieces, 12 white metal pieces, 4 lengths of brass rod, an unidentified piece of thick paper and instructions. Despite a lack of bubble wrap, styrofoam peanuts or other packing, the only damage to my model was that the crane was broken. This appears to be easily repairable, however.

The cleanly cast one piece hull had a slight mold shift at the stern that was easily sanded to shape, as well as a small air bubble around the port forward dive plane. The extensive chines had a few air bubbles that required some filling. The major panels are represented in the hull, as well as some nicely cast wooden decking. A slight mold shift on the deck was sanded out as well. The sail/hanger casting is very nicely done, with a slight mold seam that will be mostly covered by some oblong structure (main gun director?). The hanger door fits well to the rear of the hanger area (allowing you the option to leave the door open), but the fit will be further improved when the locating ridge is sanded nearly off. The sail fits well to the hull, with minor sanding required. Good thing too, since the sail/hanger is convex in shape, and filling the sail/hull joint would require the sacrifice of some of the decking detail. The turret also fits well to the front of the sail, which is good, as this area is concave on the sail. The turret.

fits very nicely to its decking (yes, the deck below the turret also rotates!) This platform also fits nicely in its area. A fairly large air bubble below the wooden decking was filled with Milliput.

Holes were drilled in the keep for the mounts (and, incidentally, something to hold during painting). More holes were drilled in the propeller shaft tunnels to accept the brass propeller shafts. The only scratch building required is the propeller shaft end supports. A drawing is provided with measurements, so the only tricky part is drilling the struts to accept the shafts. I used 0.035 in. styrene rod and 0.10 x 0.40 in. styrene strip. A lathe made drilling the rod easy. The rest was simply cutting the strip to length, slight sanding to match hull contours, and a lot of patience as the glue set. The outer shaft strut was done first. Masking tape was then used to keep the propeller shafts/struts against the hull so the inner strut could be fitted and glued into place.

Another oddity of this submarine is that the propeller shafts are unequal lengths. The port propeller shaft is longer than the starboard shaft!

That is as far as I have progressed with this model. Tim Vogt recommends that the model be painted in its entirety, mounted to the display base, then all of the "bits" added. This includes the diving planes, the propeller shafts/struts and propellers, sail, turret/turret base, floatplane, crane, AA guns, periscopes and the like.

All in all, a very nice little kit. The parts were very cleanly cast, requiring little or no clean up. I obtained this kit from Pacific Front Hobbies for $72.00.

[reprinted from the Newsletter of the Austin Scale Modelers Society]

Tamiya Beaufighter Cockpit Detail Set

Cutting Edge Modelworks
by Milton Bell IPMS 16702

When the new 1/48 Beaufighter from Tamiya became available, I had to have one, since it's one of my favorite aircraft. In fact, I was so eager to actually get to build the model that I had the fuselage assembled before I learned that a detail set was almost ready for market. I was not about to rip it apart and start over (those Tamiya kits fit soooo good!) so I bought the detail set anyway. There will

(Cont'd on next page)

(Cont'd from prior page)

be time for another Beaufighter!

Cutting Edge has a real beauty in this detail set. It was mastered by Scott Battistoni so you know the depth of detail to expect. You won't be disappointed.

What you get.. AThere are ten runners of creamy colored resin plus a front cockpit tub and a splendid little Vickers K gun for the rear cockpit. On these ten runners are 26 parts to detail both front and rear positions. They include such items as a new seat, a chart table and light for the back-seater plus a choice of spent cartridge collector bags for the K gun and other bits of equipment. That three piece K gun is an exquisite bit of detailing but the barrel on mine was so badly bent that I had to replace it with small steel tubing. I used it on the Beaufighter I did for the Austin Show.

The front cockpit is blessed with a new "tub" which features the kind of undercutting you can get only with resin. Several kit parts are retained but there are an abundance of additional details which include side wall details that extend above the cockpit sills, a new instrument panel and gun sight, a well detailed seat complete with belts. You must make several cuts in the original kit to make everything fit but these are simple and the well illustrated instructions leave no doubt as to where and how much to remove. To make sure however, I recommend removing less that you think necessary since it's always easier to take out a little more than to worry about adding shims or filler.

What do you need extra?

About the only thing missing from this set are the bits of wire or sprue you need to mount some of the small lights and the transparent gun sight glass. That and the paint. Beaufighters of this period were painted the typical RAF gray-green interior and several brands of paint await the modeler. A darker wash to bring out the depth and some dry brushing and you're ready to finish a prize winner!

The price of this detail set is not cheap but it's in line with the better offerings, and this is one of the best IMO! I bought mine from Phil's Hobbies at the Fort Worth show for about $18. It is sold mail order through Meteor Productions.

[reprinted from the Newsletter of the Austin Scale Modelers Society]

The Monogram 1/48 F-104

by Tim Robb

Monogram (now Revell-Monogram) and Monogram Germany have released the F-104, in both -C and -G versions, and in numerous schemes, over several years. The current release is a C and I just built a G, but no matter, because both kits are the same, the only differences are in the chord width of the vertical stabilizer and the C comes with a refueling probe.

To begin, get out your favorite putty.

I encountered fit problems mating the rear fuselage to the front, mounting air brakes and cannon access doors in the closed positions and in mounting the pitot probe on the nose. A nice feature of the kit is that the front fuselage is molded in top and bottom halves with the wings integral with the top half This places the seams on the sides so you don't lose the shape of the fairing that runs down the spine of the aircraft if you are heavy handed with the sandpaper. It also guarantees the correct anhedral of the wings. The one piece nose cone fits over the front fuselage so you won't sand that to the wrong shape either. The biggest deficiency in the kit is the lack of cockpit detail. Two ejection seats are provided, a Lockheed C-2 for American and Canadian birds, and a Martin Baker Mk. 7 for almost all the rest. Neither of them is very good. A resin replacement for the Martin Baker seat is a good choice. I built a Canadian bird and dug into the spares box for stuff to glue onto the C-2 to make it look "busier." If there is a resin replacement for the C-2 that I don't know about, somebody please tell me so I can use it next time. The instrument panel is OK with raised detail that can be painted and dry brushed to look good. The side consoles and throttle are poor.

Photos of Starfighters show a very prominent tubular brace/strut that extends across the rear of the canopy and mirrors and lots of other little goodies also on the canopy frame. None of these are in the kit box. Scratchbuild the tubular brace/strut from wire and bits of sheet styrene and apply some after market mirrors. That little bit of cockpit detailing is the biggest challenge to building Monogram's Starfighter.

The second biggest is the barber pole striping on the pitot probe. I wanted to use a strip of red decal but could not get a decal to wrap around the boom. I had to cut a thin strip of masking tape, carefully wrapped it around the boom, and sprayed my red paint very dry to minimize the risk of it running under the tape. It worked for me but made me nervous being such a tricky step so near the end of the project and so critical to the proper appearance of the model.

F-104 Starfighters served and are still serving with beau coups of Air Forces around the world (if you want to know how many a "beau coupe" is, count up all F- 104 users and divide by two). There are bezillions of Starfighter schemes, many of them wonderfully gaudy. If you are a markings freak like me, you want to do them ALL. The F-104 kit is showing its age now when compared to newer kits on the market and you don't see many 1/48 Starfighters at model shows because of it. This is a real shame for the starfighter is an undeniably beautiful airplane. Here are my recommendations to Revell-Monogram to resurrect this kit and sell many beau coups of them!

- Include resin replacements for the seats, both versions, consoles, instrument panels, and afterburner can.
- Add an extra sprue with new parts including the tubular brace/ strut for the canopy, ventral fins for an F- 104S, the ECM bumps and bulges and underwing pylons
- Include a photoetched sheet with canopy mirrors and details too small for plastic.
- Include a new pitot boom that fits (and is already striped!)
- Include some new high quality multi-scheme decal sheets
- Release the kit with box art of a different, colorful, and gaudy scheme every year.

The beauty of the F- 104 is in the many markings possibilities. With a few additions to the kit to bring it closer to current standards and make it easier to build, Revell-Monogram could sell until the world is level because us markings freaks will want to build them all!

Tim

[reprinted from the Newsletter of the Austin Scale Modelers Society]

Book Reviews:

Well, here goes again. As I hope most of you are aware, your intrepid editor (notice I didn't lay claim to any intelligence or intuition) is trying to lay the seed, such as it is for another type of information we can all share with our fellow modelers. As I look as the feeding frenzy that goes on at and around the vendor's tables each month during our meeting, I can't help wonder if any or all of the books purchased are any good, worthwhile, better than others or in general worth buying? I don't recall the last time a member spoke up (or wrote), offering any type of review, critique or thoughts about a particular book or magazine. From my perspective as a modeler that's a shame for at least three reasons: (1) I can't possibly afford all of the many books, magazines and monographs out there (I can't even understand those in French, Polish or other foreign languages—suffice to say I am ill prepared to fully blend into the multicultural world of modeling due to my poor education and attitude). Which books are really worth anything, much less the sometimes heady prices charged for them. Which really provide something new or worthwhile? (2) If the book isn't really worth adding to ones library, I'd like to know it and spend my hard won modeling money elsewhere in a more productive way. (3) Is another rehash of the same old stuff we've seen in prior efforts for the same aircraft, tank or ship? Once again, I have as I suspect many of you have, see the same old data, photos, and narrative in more than one publication and would like to only buy the one or two related resources which will provide me something of lasting value for my dollars.

I am rating them using a four point rating system, which equates roughly to:

Good to Great; recommended by reviewer

Fair to Good; recommended by reviewer, but not the best reference or very limited use for modeler

Poor; not recommended by reviewer, unless you have lots of money to spend and want everything in print

Caveat emptor or total waste, a real bomb, not recommended to any other modeler

Would some of you please put your thoughts down in writing and allow us to share them, saving us all the same cost or anguish by providing us some simple facts and information on the books you buy? Common folks, let's share the information! Please.

To begin this section, allow me to pass on some observations about three new books I have bought (notice none were given to me and I feel no compunction about honestly sharing my thoughts about them with all of you).

Lockheed SR-71/YF-12 Blackbirds

Dennis R. Jenkins, Warbird Tech Series, Volume 10, 1997. About $15.30 from The Supply Depot

I am not sure exactly how many books have been written on the SR-71 or YF-12 and variants, but this is one of the better in my opinion. While none of the drawings are scale nor designed with the modeler in mind, there are a number offering a good deal of insight into the shape, size and operational components of the still little known Blackbird. It also has a good narrative covering the aircraft's various mods and operational or intended use by the USAF, CIA and NASA. It ends sadly, with the current state of affairs with the Congress and Air Force current arguments about the value and necessity of keeping this splendid a/c operational and funded. There are also several nice color shots in the small color center section, most of which have not been previously printed in color (to the best of my knowledge). This book will also give you some ideas as to where you can see the remaining display blackbirds (not the least of which is the M-21 contained in our local MOF (Museum of Flight). Since the latest salvo was just fired last week when Congress has once again voted to fund t continued operations for another year and the Air Force arguing that it's just "beautiful antique." Time will obviously tell and we may even someday learn about it's long term value to our country and intelligence community. But, for the money, this is one small (100 pages) book, loaded with photos (some very rare), I recommend, especially for the money.

SB2C Helldiver

Bert Kinzey, Detail & Scale series, Volume 52, 1997. About $11.50 from Skyway Hobby Shop

This is another in a long line of photo resources for modelers. It is not a complete history, nor does it offer much in the way of in-depth historical narrative about "the Beast" as the author refers to it, but it does offer a set of fairly good drawings by Lloyd Jones, who is very thorough in his research and though not done with any real scale comparison (other than saying they are 1/72nd scale drawings), provides the modeler with some very useful prospective on this late war Navy carrier aircraft. The vast majority of the photos offered, fortunately for the modeler, are from original Curtiss and U.S. Navy sources. There are also several drawings copied from the Navy's SB2C tech manuals and they add in most cases to the reader's understanding of this very complex and large carrier bomber. There are also about eight pages of photos in color which are interesting and add to the reader's "feel" for the Helldiver. Many of the photos are of the finest example surviving, that on display in the Naval Aviation Museum in Pensecola, Florida. These save the readers the expense of traveling to Pensecola to see this a/c alone (though in my experiences, the NAM is so full of things to see, photograph and look at, that the Helldiver there is apt to be overlooked altogether!) In the "Modelers Section," the author shares his vast knowledge of all there is to know about the existing models of the

(Cont'd on next page)

Helldiver. Suffice it to say that the latest Monogram kit comes in as the pick of the litter. But you may not know much about the remaining models of the SB2C and this section can save you some dollars and effort in attempting to see what is out there and their relative merits. With the little known material, aside from the Squadron or Koku Fan books on this aircraft, I recommend it strongly as a "need" or "have to have it" for any modeler interested in WW II U.S. Navy aircraft or models.

Roll Call: THUD

John M. Campbell & Michael Hill, 1996, Schiffer Publishing. About $59. ($89.95 CDN) from Burnaby Hobbies

This book is unique in my opinion. It serves one key purpose: to provide photographic and ! own data about each of the 883 Thund chiefs constructed. Several years ago, the USAF allowed a complete list of each of the F-105s produced to be released, along with a summary of what had happened to those aircraft. It provided a huge amount of information about the "Thud" and its important contribution to the U.S. efforts in SEA, mainly through the actual accounting for the loss of F-105s and their brave aircrews. I was able to find a picture of the aircraft, COL Leo Thorsness (Medal of Honor recipient and guess speaker at our '92 Convention) used during his epoch 19 April 1967 mission; F-105G #63-8301 was later lost to a crash in California on 20 Dec 1974. In this book, the authors have attempted to provide at least one photo (mostly color) of every one of the 883 aircraft during their active service life. There is not attempt to chronicle the development, details or other modeling information about the valiant Thud (aside from one fly leaf engineering cut-away drawing of the basic airframe). It does allow for some very interesting viewing, historical perspective on the huge contribution this a/c made in our SEA war effort and the terrible contribution made by our F-105 drivers and RIOs during that time, not to mention the "normal" loss or attrition of aircraft during peacetime due to accidents. In its 175 pages of photographs, this book provides a significant tool for those who remember and want to chronicle the F-105. It is one of the finest such research tools I have ever seen and wish more such books could be done on other contemporary aircraft, but the time and effort involved would be immense. I recognize it has very limited appeal and use, but it is a landmark effort and well worth it for the serious "Thud nut." I recommend it to anyone who wants to increase their understanding of the SEA conflict, the Thud itself and the bravery of our crews who flew into Route Pack Six and crossed the Red River Valley.

Misc. Notes:

"Modelfy"

The Modelfy category has been very popular for years at the Northwest Modellers show in Seattle. At the 1998 IPMS Nationals in Santa Clara, this will be a trophy category sponsored by the newsgroup REC.MODELS.SCALE and Mike West of Lone Star Models.

The basic rules of the Modelfy are very simple; you are assigned a specific kit from which you may build whatever comes to mind. You may not build it according to kit instructions/markings (straight). An important rule is that the judges must be able to find some parts of the original kit in the final kitbash. You may use parts of the kit, several kits, and even bash together other kits to build your creation.

Judging criteria: judging criteria is identical to IPMS judging; sound building technique, good finish, etc. are still necessary. The only exception to these criteria is that an emphasis is also placed on creativity and humor.

IMPORTANT: The kit that will be the basis of the Modelfy competition at the IPMS Nationals in Santa Clara in 1998 will be the 1/48th Monogram P-51B. This kit was chosen by members of REC.MODELS.SCALE; the winner of this competition will have the honor of choosing next year's kit.

There will be first, second and third place honors in this category; first place, however, will also win the coveted "Trophy Hog". The Trophy Hog is a trophy which will be held by the first place winner for one year.

On receipt of the "Hog", the winner will accept the responsibility of getting it to the next year's Nationals so that it can be awarded then; it is a revolving trophy. Of course, the winner will keep the first place ribbon. If the winner doesn't want the responsibility of returning the "Hog" for the following year's Nationals, they can opt to decline the "Hog" after the banquet.

How to start this darned thing? Some modellers choose to draw pictures of possible schemes before buying the kit and beginning on it while there is another very strong contingent that likes to take a kit and fit the pieces together different ways until ideas begin to gel. Both methods work quite well and you'd be surprised how innovative and resourceful we modellers can be!

This is meant to be a fun and humorous category that will stretch your creativity to the limit. Some of the more interesting Modelfies at the Northwest Modellers in recent years have been:

Model :	Original kit:
Crane (machine)	Fairey Rotodyne
Orca (killer whale)	Fairey Rotodyne
Whaling harpoon	F-14
Sailboat 3D art	F-14
Windmill	Topfuel Dragster

(my apologies to the many other interesting models that have come from this competition; memory only works to a point)

Now get out there and pick up your Monogram P-51B and start modelfying it. Good luck!

Stephen Tontoni

Why did the chicken cross the road?—USAF reactions to this event follow:

Air Education and Training Command:

The purpose was to familiarize the chicken with road-crossing procedures. Road-crossing should be performed only between the hours of official sunrise and sunset. Solo

chickens must have at least three miles of visibility and a safety observer before crossing.

Special Operations Command:
The chicken crossed the road at a 90-degree angle to avoid prolonged exposure to an enemy line of communication. To achieve maximum surprise, the chicken should have performed this maneuver at night using night vision goggles, preferably near a road bend in a valley.

Air Combat Command:
The chicken should log this as a GCC sortie only if road-crossing qualified. The crossing updates the chicken's 60-day road-crossing currency only if performed on a Monday or Thursday or during a full moon. Instructor chickens may update currency any time they observe another chicken cross the road.

Air Mobility Command, Tanker Airlift Control Center:
We needed the road-crossing time and at the time the chicken closed out on the crossing, it became available for another crossing.

Command Post:
What chicken?

USAF Control Tower:
The chicken was instructed to hold short of the road. This road-incursion incident was reported in a Hazardous Chicken Road-Crossing Report (HCRCR). Please re-emphasize that chickens are required to read back all hold short instructions.

C-130 Crewmember:
Just put it in back and let's go.

C-141 Crewmember:
I ordered a #4 [box lunch] with turkey and ham, NOT chicken. Besides, where the heck are my condiments?! We ain't taking off til' I get my condiments!!!

Fighter Pilot:
Look, dude, that was the frag, OK? I've flown my 1.0 for the day and I ain't got time for anymore questions!

B-1 Crew:
Sorry, we missed the whole show-we had an IFE so we couldn't get out to see it; you'll have to ask the SOF.

Air Force Personnel Center:
Due to the needs of the Air Force, the chicken was involuntarily reassigned to the other side of the road. This will be a 3-year controlled tour and we promise to give the chicken a good-deal assignment afterwards. Every chicken will be required to do at least one road-crossing during its career, and this will not affect its opportunities for future promotion.

Col John Warden, Gulf Air War Architect:
The chicken used its unique ability to operate simultaneously in 2 dimensions to bypass the less important strategic SAM rings on this side of the road and strike directly into the heart of the enemy, thereby destroying the will of the enemy to fight and thus ending the conflict on terms favorable to the chicken.

U.S. Congress
Despite the objections of the AF, we feel the chicken crossing was in the best interests of the nation and merited the expenditure of $2.4B, primarily in the state of California.

Editor's Note: I can't help but laugh at these notes, forwarded by Walt Fink. If you have no experience with the government or haven't been in the service, they will certainly give you some flavor of what it's like. I suspect Walt omitted saying that if there had been a modeler present he would have asked "when is the kit due, what scale and markings, and will there be an "In Action" or Detail & Scale book available?"

Kit Rumors:

New Products/Old Rumors

Here it is October already and this past weekend was the RCHTA hobby show in Chicago. That means that some of the rumors will become fact and some will be, well, just rumors. So, fasten your belts, hold on, and enjoy the ride!

First on the list is Revell-Monogram. R-M has brought out some outstanding kits lately, especially the Helldiver which was preceded by the two PBY's and the somewhat controversial Me 110G-4 We still have to see the Me 410 which should be out by Christmas.

But what about next year? Well, R-M has announced a I :48 F-84E to be followed by an F-84G later on. This was a subject high on almost everyone's list. Probably not on anyone's list was the Fw190G-3, an uncommon fighter-bomber variant but R-M is going to do one! If that wasn't enough, how about a 1:48 Ju 52 and a Ju 88A4! All of these have been confirmed but release dates and prices are still to be announced. All are in the ProModeler series. And this is not all from R-M. Several 1:48 kits will be rereleased including the P-SID and P-47 Razorback.

In the larger scale, Revell will have a brand new 1:32 Hunter and R-M will rerelease their 1:32 Hurricane as a IIC. Look for a rerelease of the 1:32 F3F.

There are lots of new cars coming from R-M; actually about three times as many as "other kits. " Rather than list them all, let's just say they range from a series of SnapTites which include a 98 Corvette, a stock Hummer, a Boxter to a line-up of new Nascar subjects like the Skittles Gran Prix and the new Ford Taurus cars of K-Mart and Exide. There are also some sports cars such as the Porsche GT- I and Corvette rag top, and some reissues of 1962-64 of Revell Parts packs (engines: Chevy 327, Pontiac 421, Ford 390, etc.)

Well, that's a good start. There is not much to report on at this time from the imported scene, but the Tokyo Hobby Show is slated for Oct. 16-19 and there are bound to be some announcements there. The only thing I know for sure is a new Formula One car from Tamiya and a new Willys Jeep, in 1/35th of course.

New kits we should be seeing in a month or so are the new Hasegawa Beaufighter in 1/72 scale followed by the Nanzan in the same scale by Tamiya. Hasegawa also has a Ki 49 Helen and a G3M Nell now available in Japan. They are supposed to be all new tools. Tamiya's Seiran is already available in both 1/48 and 1/72 scale. Both are really good kits and it's good to see a 1/72 kit with the Tamiya label.

Already available in Japan is the

new He219 Uhu from Tamiya and the armed version of the Dinah. It usually takes four to six weeks to get the kits imported and distributed, so look for these new kits around the first of November. The price of the He 219 should be about the same as the Beaufighter. If you haven't heard, Tamiya has molded the floor in white metal so the model should not require

A subject aircraft builders have wanted for a long time—the DHC Caribou—has now been done by Hobbycraft. This 1/72 scale model is offered in two versions and has never been offered in an injected kit before. It's a big one with gull wings for its two engines and a very tall tail. The kit comes in two boxings: a US Army (61Av), RAAF with orange stripe and kangaroo art, and SVNAF. The second boxing is more international: RCAF (a have-to), UN, Tanzania, Spain, and USAF (457 TS). The kits are a little pricey at the mid to upper $30s but we don't get many transport aircraft kits. And if you need reference help, don't forget the Squadron Signal Caribou in Action book.

Blue Max, the 1/48 branch of Pegasus, has released a Sopwith Camel that has parts for the standard Camel plus the navalized version the 2FI. It appears that only 1500 examples are to be produced worldwide, so that accounts for the price which is near the $40 level.

If you want to do a Canadian Navy version of the Accurate Miniatures Avenger, either early or late AS-3 variants, Belcher Bits has a conversion kit ready. The kit consists of a new canopy, vac-formed, resin parts decals and a set of EZ masks which are the opposite of Fast Frames

Now for the armor builders. (You may have noticed a lack of armor articles in this newsletter. That's because none were submitted. So there!) Pretty soon we should see the Tamiya "deuce-and-a-half" and there are a bunch of re-releases from Tamiya which include the Kettenkraftrad, a real strange hybrid motorcycle-halftrack. (I wish there was one in 1/32 scale to go with the Hasegawa Mel63!) For a leap forward in time there is the M151A2 or Ford Mutt which should look neat next to the Willys Jeep which Tamiya will be their next release.

Like the Kettenkraftrad, the Horch 4x4 Ia truck is an older Tamiya kit and somewhat dated but still, it can be made to look pretty good (especially with the canvas cover!) Anyway, its a re-release.

Verlinden has three new armor detail sets which include an engine compartment for the Panzer III, which has lots of "bits," and two sets for the Italeri Willys Jeep and a general upgrade for the Jeep which includes a little more than the other two sets. These may have applications to the new Tamiya kit as well. The latter set contains three frets of PE, a packet of resin parts and some copper wire and plastic rod. Much of the detailing concerns the engine compartment, seats, and a new machine gun mounted on the back of the jeep. There is also some "stuff" to use in a diorama.

Warriors has issued a bag of damaged (burnt out, scratched, dented, pitted) roadwheels for a Panzer m. Probably would look great in a diorama. And lastly, there is a set from Eduard for the interior of the Minicraft Tiger III, in case you think you need it! The sheet has straps, buckles, hinges, screens, mesh baskets, racks, boxes, and a film for the panel's gauges. You may never finish the model!

Keep on modeling.

Milton Bell

[reprinted from the Newsletter of the Austin Scale Modelers Society]

And More New Product News (and Rumors)

Revell Germany has reissued the 1/72nd Frog Gannet kit.

Hi-Tech will be issuing a resin detail set for the Eduard 1 /48th Tempest Mk.V kit. The set will consist of a new canopy, cockpit interior, control surfaces, and wheels.

Hasegawa will be issuing its 1 /48th Hellcat with Fleet Air Arm decals. The Supply Depot in its latest newsletter stated that Hasegawa recently ran test shots of its upcoming 1 /48th release of a Hawker Hurricane Mk. IIC. Hopefully the production version of the kit will be available before the end of the year.

High Planes Models released a 1 / 72nd kit of the Bristol Beaufighter IC. This is a limited-run kit that one review described as "suitable for the advance modeler."

Marine Air Products (Phoenix, AZ) has issued a comprehensive resin cockpit detail set for the Revell 1 /32nd DeHavilland Mosquito. Scale Aircraft Modeller describes it as "quite good."

Paragon Designs has issued several 1/72nd and 1/48th detail sets for the Airfix D.H. Mosquito kits. The sets include Mk. VI engine cowlings, a thimble nose, beautifully rendered cannon bay, auxiliary fuel tanks, and a photo-recon fairing.

Airwaves has released photo-etch detail sets for the Airfix 1 /72nd Boulton-Paul Defiant and Fairey Swordfish.

The Story of Three Spitfires in One Night

Several weeks ago I made a stop at a Red Coleman's liquor store on the way home from the office and discovered an intriguing product in the premium beer section. In the middle of the British ale and lager products was "Spitfire Premium Ale." Yes, Spitfire Ale! It is brewed by Shepherd Neame, Britain's oldest brewery, established in 1698. It is packaged in the classic British 17-oz. translucent brown glass bottle with an eye-catching front label. Information on the back label explains that the ale is brewed to a traditional method using only the finest Kentish hops and best-quality malted barley. This excellent ale is appropriately dedicated to the "great nostalgic aeroplane." Over the years, I've sampled several different British lagers and ales and this one is the best I've tasted to date. Its flavor is smooth and full bodied, not bitter and overpowering like many ales. It

doesn't leave an unpleasant aftertaste, which I have experienced with other ales. In my opinion this fine ale is worthy of its name. After imbibing three Spitfires in one evening, with my trusty 1/24th-scale Spitfire in hand, I was ready to blast the few remaining German aircraft kits from my storage closet! This is a beverage you would want to savor while writing inspired articles for the FlakSheet or viewing the greatest aviation movie of all time, The Battle of Britain.

RAF and British Commonwealth Facts from WWII

The air battles of the Guadalcanal Campaign are most remembered for the valiant and victorious exploits of U.S. Navy and Marine pilots flying Wildcat and Dauntless aircraft. Less well known are the invaluable contributions made to this pivotal campaign by the New Zealand pilots of No. 3 Squadron flying Lockheed Hudsons from Henderson Field. These pilots undertook many sorties by day and night to reconnoiter the approaches to Guadalcanal and track Japanese ship movements. Single aircraft made frequent low-level reconnaissance flights along the coastlines of New Georgia, Santa Isabel, and Choiseul Islands to monitor Japanese activities. An RNZAF Hudson made the first attack on the Japanese airfield under construction on Munda Island. Hudsons served as pathfinders for American aircraft and provided flare illumination during night raids on Japanese bases. So the next time you're working on that Wildcat or Dauntless kit you plan to finish in the markings of an aircraft that fought at Guadalcanal, take a minute to remember the courageous efforts made by RNZAF pilots flying Hudsons in that heroic struggle. ~

I'm not sure where you got your information, John, but if you've read John Lundstrom's fine sequel to "The First Team" carefully, you'll recall that the New Zealand Hudsons were tasked primarily with transporting stocks of beer and other essential commodities to the Marine flyers on Guadalcanal. In that mission they performed admirably, prompting Marine Corps ace Marion Carl to later proclaim in his autobiography, "If it hadn't been for those capable, dedicated Kiwis, we'd have had to endure the entire Cactus campaign sober. Godbless 'em..." —Ed.]

John Walen

[reprinted from the *Flaksheet*, the newsletter of the IPMS North Central Texas]

Seattle Editor's Note: While I know John Walen to be an excellent model builder and in general an all-around good guy, his beer knowledge (and possibly movies?) appears to be in need of some fine tuning. While in the Penzance - Portsmouth, England areas we visited several fine old English pubs and either the Ben Bow or Blue Anchor are much older, claiming to brew their own beer, from the 14th century and laying claim as the oldest breweries in England. Sampling their wares also tends to steady the modelers' hands and increases one's understanding of the fine art of scale modeling as well! So help me, or at least it seemed that way!

Modeler's Notes:

A Primer on Primers: Cockpit and Interior Colors of WWII Aircraft (cont'd)

John Vitkus, IPMS John H. Glenn/ Western Reserve

JAPAN

Crew compartment: dark blue-gray, green-gray, light green olive (Mitsubishi cockpit color), buff green (Nakajima cockpit color), khaki, yellow-brown, exterior color, fabric tan, redbrown, unpainted.

Structural surfaces: unpainted, clear primer, translucent bluegreen primer (aotake), exterior color.

Descriptions:

Dark blue-grey is a dusty, dark shade, about FS 35164.

Green-grey is a medium-light, chalky gray-green with no yellow or brown tint, about FS 34226. This is British gray-green.

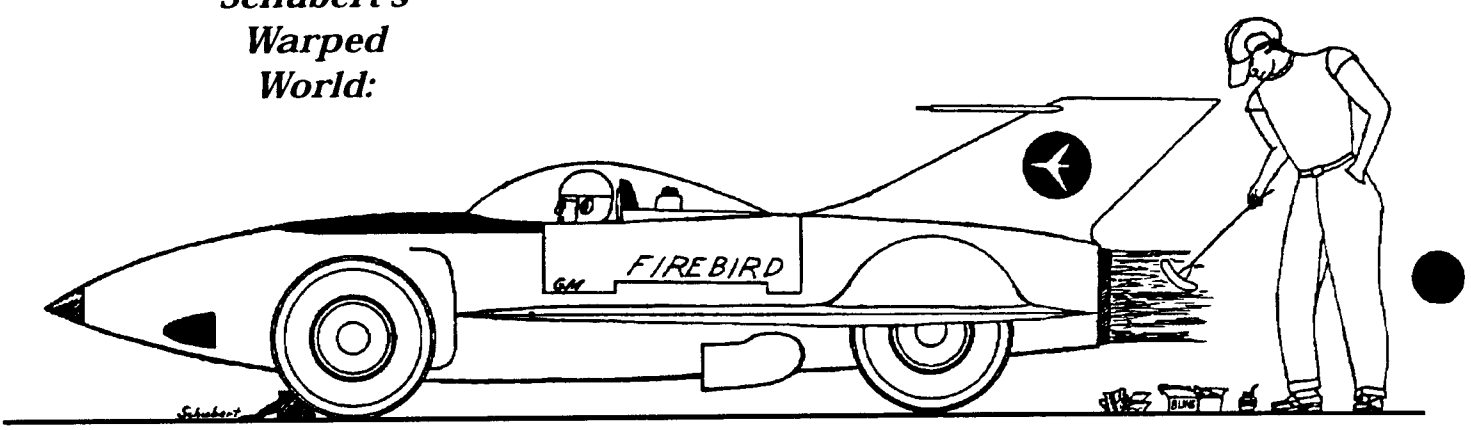
Light olive green (Mitsubishi cockpit color) is a medium greenish olive, about FS 34151; this is U.S. interior green.

Buff green (Nakajima cockpit color) is a dark yellow-green, about FS 34255, like U.S. interior green (FS 34151) but yellower.

Khaki is a dull wood tan with a hint of

(Cont'd on next page)

Schubert's Warped World:



green, about FS 33448.
Yellow-brown is a light greyish-yellow-brown, about FS 30260. Like khaki, but yellower.
Exterior paints were occasionally used as cockpit primer throughout the war, from some early ZEKE (Zero) 21s to Kikkas.
Fabric tan is a dull, medium ochre-tan, like greyish brown mustard, about FS 33440.
Red-brown primer varied in shade from a dull brown to a deep maroon.
Translucent blue-green primer ('aotake,' which means "bluegreen bamboo color") is a translucent phenolic lacquer that varied in shade from deep aquamarine to bright green. When applied, the underlying metal showed through, giving a metallic effect. Some references state that aotake was applied in a variety of shades, others state that as it aged and faded it became more green and darker, sometimes ending up a blackgreen. Probably both factors contributed to its varied appearance.

Application: Unlike most other nations, the Japanese imperial government never issued any uniform specifications regarding interior priming, leaving this to the discretion of the manufacturers. As a result, a wide variety of primers were used, not only among different a/c types, but also among different manufacturers of a single type, and even among components within a cockpit.

The Navy (IJNAF) was fanatical about anti-corrosive primers. Initially the primer was colorless, but early on the Navy began using the tinted aotake on virtually all a/c. Initially cockpits were seen in this rather lurid primer (e.g., the ZEKE found in Alaska in June 1942), but by mid-1942 the green-khaki primers were used in cockpits and crew compartments. Beginning in 1944, airframe priming was gradually abandoned, but cockpits continued to be primed. In contrast to the IJNAF, the Army (IJAAF) was much less concerned with airframe priming. A clear lacquer was sometimes used, and occasionally red-brown primer was used to darken cockpit deckings. In rare cases manufacturers who also built IJNAF aircraft used the aotake primer on IJAAF machines. By late 1944 airframe priming was for the most part abandoned. In short, most structural surfaces for IJNAF aircraft would have the aotake primer. The structural surfaces of prewar and late-war IJNAF, and most IJAAF, aircraft would appear unpainted.

Radial-engine gear housings were painted in green-gray. Often steel tubes, including internal framing, structural members (e.g., engine bearers), and landing-gear struts were semigloss black; check photos.

In cockpit colors, an early trend was to use dark blue-grey for IJAAF aircraft and aotake or the exterior color for IJNAF aircraft. As the war progressed, the other shades of green, khaki, and tan became more prominent. Late in the war, the exterior color was once again used, or no primer was applied. Some specific cockpit colors are:
Dark blue-gray: BABS, LILY, NATE, OSCAR (early), SALLY (early), TOJO (early).
Aotake: FRANK (occasionally), IRVING, JAKE (early), KATE (early), PETE (early), VAL (early), ZEKE (early).
Green-Grey: DINAH, EMILY.
Light olive green: BETTY, JACK, MYRT, PEGGY, Shin-den, ZEKE (and perhaps other Mitsubishi-built a/c).
Buff green: DINAH, JILL, JUDY, NICK, OSCAR, RUFE, TOJO, ZEKE (Nakajima-built).
Khaki: DINAH, GEORGE, HICKORY, NICK, TONY
Yellow-brown: TONY, Ki-100
Exterior color: FRANK (wheel wells in undersurface color), GRACE, JILL, JUDY, Kikka
Fabric tan: SPRUCE, CYPRESS
Unpainted: FRANK (and probably other late-war a/c).

SOVIET UNION

Crew compartments: Light grey, medium grey, dark grey, interior primer yellow, interior green-gray

Structural surfaces: as above

Descriptions:
Light grey is a semi-gloss, light pearl grey with no color tint, about FS 26373. This is semi-gloss RLM 63.
Medium grey is a blue-gray, slightly bluer than U.S. neutral grey, about FS 36176.
Dark grey is a medium-dark untinted grey, slightly darker than U.S. neutral grey, about FS 36187.
Interior primer yellow is a dull mustard yellow with a sickly green tint, about FS 33481. This is U.S. primer yellow.
Green-grey is a medium-light, chalky gray-green with no yellow or brown tint, about FS 34226. This is British grey green.
Application: Refs report colors for the following:
Interior primer yellow (structural surfaces) & interior green (cockpit) for the La-5.
Light-grey cockpit and medium-gray wheel wells for the 1-153.
Dark grey for the MiG-3.
My interpretation of b&w photos indicates light, medium, and dark matte (grey?) areas as follows:
Light: 11-2, MiG-1/3 (gear doors), Pe-2 (crew compartments only), Yak-1 /3/ 7/9;
Medium: DB-3/11-4, 1-15/152/153, Pe-2 (gear doors and nacelle bomb-bay doors);
Dark: 1-16 (both cockpit door and gear doors), LaGG-3, La5/5FN/7).

POLAND

Crew compartments and structural surfaces: aluminum lacquer (about FS 17178), silver dope, or unpainted metal.

Applications: A silver interior surface seemed to be almost universal among Polish aircraft of the late 1930s.

UNITED STATES

Crew compartments: aluminum lacquer, interior green (zinc chromate green), dull dark green (medium green), unpainted.

Structural surfaces: primer green, airframe yellow (zinc chromate yellow), exterior color, unpainted.

Descriptions:
Aluminum lacquer has a glossy, silvery color, about FS 17178.
Interior green is medium dull greyish green with a yellowish olive tint, about FS 34151.
Dull dark green is a dark, neutral green (no yellow tint, perhaps a hint of

blue), about FS 34092.

Primer green is a medium neutral green, like dull dark green but lighter, about FS 34097.

Airframe yellow (my name) is a dull mustard yellow with a sickly green tint, about FS 33481.

Application (U.S. Army Air Force}: Before the war, internal surfaces were primed with aluminum lacquer; this is what prewar aircraft (e.g., Dutch Martin B-10s and Filipino P-26s) carried into battle. With the adoption of camouflage in 1941, the USAAF painted cockpits interior green. This color remained the standard cockpit and crew-station color throughout the war, even after other internal surfaces were no longer primed. Dull dark green was commonly applied to seats, armor plate and sometimes floors. The fabric sound-insulation panels on bombers were also painted dull dark green.

Airframe priming on camouflaged aircraft seemed to follow three patterns.

(1) Bell, Consolidated, Curtiss, and Douglas (and perhaps others) used primer green for all structural surfaces. In some photos these structures look to be painted interior green, like the cockpit. This may be a variation in priming practice, or it may be that "primer green" is really a variant of interior green.

(2) Lockheed, Martin, North American (at first, at least), Northrop, and Republic (and perhaps others) used airframe yellow on structural surfaces. Interestingly, only Republic seems to "show" this yellow primer in the wheel wells and gear doors. Martin and NAA use silver lacquer for these areas;

Lockheed and Northrop use interior green.

(3) Boeing (and perhaps others) did not prime internal surfaces, including the crew stations; only the flight deck and nose were sprayed with interior green. When the USAAF abandoned camouflage in late 1943 (primarily to expedite production, not to improve performance), subcontractors likewise stopped priming structural surfaces. Existing stocks of primed components were still used, for a while resulting in strange combinations of painted and unpainted parts.

Application (U.S. Navy): Like the USAAF, prewar USN a/c were primed in aluminum lacquer. Photos of RAF, Dutch, and Finnish Buffaloes show this primer. Photos of the interiors of USN a/c that were operational at the beginning of the war (e.g., F2A, F4F, SBD, TBD) also show silver lacquer finishes. However, these photos are probably pre-war vintage, and it is likely that interior green was applied to all cockpits and crew stations when camouflage was applied to the exterior surfaces, starting around February, 1941. Cockpits and crew areas were to be primed in interior green, whereas structural surfaces, including gear struts and hubs, were to be painted in the exterior color. In practice, crew-station priming was very consistent, but priming on structural surfaces showed many variations. In the original blue-grey over sea-grey scheme, wheel wells and landing gear were generally painted light grey, whereas most other visible structural surfaces were painted interior green. I have one picture of F4F Wildcats on USS WASP; half of the wing folds are blue-gray, half are interior green. With the advent of the tricolor scheme in January 1943, more structural surfaces began to be painted in white, but there were skill variations. In June 1944 came the switch to overall glossy sea blue (Pacific) and gull gray/white (Atlantic), and now the majority of structural surfaces were in the exterior color.

Exceptions: The lower half of F4F/FM Wildcat landing gear shuts were black. Most TBF/TBM Avengers retained interior green bomb bays, including door inner surfaces, throughout the war. SB2C Helldiver structural surfaces, including gear struts, were primer (or interior) green regardless of the external scheme. Inner surfaces of dive brakes (SBD, SB2C) were insignia red (medium-dark red, about FS 31136). F4U Corsair wheel wells, including tail wheel, were interior green; gear doors, shuts, and hubs were the undersurface color.

• REFERENCES • (a very incomplete list)

Aerodata International series, Squadron/Signal Publications, Carrollton, TX, USA.

Air Enthusiast series, Fine Scroll Publications, London, UK.

Asahi, newsletter of the Japanese Information International, an IPMS Special Interest Group.

Baker, I., Japanese Army Aircraft Colours - Markings in the Pacific War... and Before. Author, Victoria, Australia, 1992.

Baker, I., Japanese Navy Aircraft Colours - Markings in the Pacific War... and Before. Author, Victoria, Australia, 1991.

Bell, D., Air Force Colors, Squadron/Signal Publications, Carrollton, TX, USA, 1980.

Doll, T. E., Jackson, B. R., & Riley, W. A., Navy Air Colors, Vol. 2, Squadron/Signal Publications, Carrollton, TX, USA, 1983.

Ethell, J. L. American Warplanes: World War II-Korea, Vols. I - II, Arms and Armour Press, London, 1983.

Ethell, J. L., et al., The Great Book of World War 11 Airplanes, Zokeisha Publications, Tokyo, 1984.

Green, W. & Swanborough, G., WW2 Aircraft Fact Files series, Arco Publishing Company, New York.

In Action series by Squadron/Signal Publications, Carrollton, TX, USA.

Klaus, D., The IPMS Color Cross-Reference Guide. Author, Merrifield, VA, 1993.

Lynch, Cameron. Everything You Ever Wanted to Know about Japanese Cockpit Colors, Internet posting, 7 April 1996.

Merrick, K. A. Hitchcock, T. H., Official Monogram Painting Guide to German Aircraft, 1935-1945, Monogram Pubs., Sturbridge, MA, 1980.

Modelaid International series, Gutenberg Press, Valletta, Malta.

Monogram Close-Up series, particularly nos. 14 and 15: "Japanese Cockpit Interiors, Parts I and II," Monogram Pubs., Sturbridge, MA, USA.

Profile series, Profile Publications, U.K.

Thorpe, D. W., Japanese Army Air Force Camouflage and Markings World War II, Aero Publishers, Fallbrook, CA, USA, 1968.

Thorpe, D. W., Japanese Naval Air Force Camouflage and Markings World War 11, Aero Publishers, Fallbrook, CA, USA, 1977.

(Cont'd on next page)

(Cont'd from prior page)

Thanks to fellow modelers Ron Cole, Joe Francesco, James H. Kitchens III, George Odenwaller, Hank Osika, Bob Sigman, Roy Sutherland, and Roger Wallsgrove.

[reprinted from the *Flaksheet*, the newsletter of the IPMS North Central Texas] [The following is the final installment of a three-part series. My thanks again to John V. for making this available.—Ed.]

Editor's Note: Some of you will want to see the balance of this articlle and we'll rerun it as soon as it can be located. Anyone have either Pt 1 or 2?

INTERNET Info:

Detailing Insturment Panels

This month we'll talk about detailing insturment panels. These techniques can be used on all panels reguardless of scale or type of equipment. They can be used on aircraft, cars or even armored vehicles.

There are several ways of detailing depending on how much efort you want to put into a project. The first and easiest way is drybrushing. If the panel you are working on has raised detail and enough to please you, then you can drybrush it.

To do this, first paint the panel the proper color and paint the instrutmet faces flat black. After the panel has dried, take a small flat brush with a little flat white paint on the tips of the bristles. Wipe the brushon anindex card until almost dry, then brush over the instrument faces hitting only the detail. You may have to go over each face more than once to get the desired effect. For more detail use silver paint and dry brush raised bezels, knobs and switches.

If the instrument panel in your kit has no raised detail or you are not happy with the detail then scratch building a panel is pretty easy. All you need is some sheet plastic and patience.

Using the kit panel as a guide, first cut a new panel from .020 sheet. Then cut two more panels, one from .010 sheet and the other from clear acetate. I get my acetate from packages such as batteries are sold in. the next step is to lay out the the locations of the insturments on the .010 panel. Determine the location and size using reference or the kit panel as a guide. After you have marked all the locations, put the apporpriate size hole in the .010 panel. I use a Waldron punch set for this but you can use drill bits of the proper size also.

After drilling all insturment locations paint both the .020and .010 panels flat black. When dry clamp the .010 panel over the .020 panel making sure the panels are lined up perfectly. Now use a scribe or a straight pin vise and etch in the insturment faces. Use only enough pressure to remove the paint to make your dials.

Now you have a choise. You can either glue the two panels together and put a drop of clear gloss paint in each insturment face to simulate glass or you can put the clear acetate between the two. Whichever way you choose do not glue the panels together with plastic cement. Instead, clamp the panels together and go around the edges with white glue, such as elmers.

After the panels are dry, you can add switches and buttons by using streched sprue or Evergreen rod of the proper size. Glue these in place with super glue and paint them gloss black so that they will stand out from the flat black panel. You can add warning lights by first putting a dot of silver in the lights location then covering the silver with clear yellow or red paint.

If you have the patience you can make a panel with individual insturment bezels. to do this use the same techniques as above panel except instead of a solid .010, make each bezel separate. To do theis drill the size hole you need in .010 sheet plastic and trim the plastic as close to the hole as you can. Square bezels are the easiest but with pratice you can do round one's also. Hold the bezel in place and scribe in the insturment face. If you use clear acetate just cut this to size of the bezel then glue the bezel and acetate to the panel with white glue. Now you can futher detail the panel as before.

Well, that just about covers insturment panels. If you have anything that you would like me to cover in this column, then let Ken know at OK Hobbies or write me at:

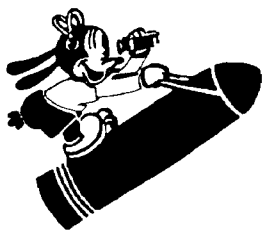
Frank Koons
4313 S Owasso Ave. Apt #4
Tulsa, Ok 74105

Thats all for now, so until next month have fun, build a model.

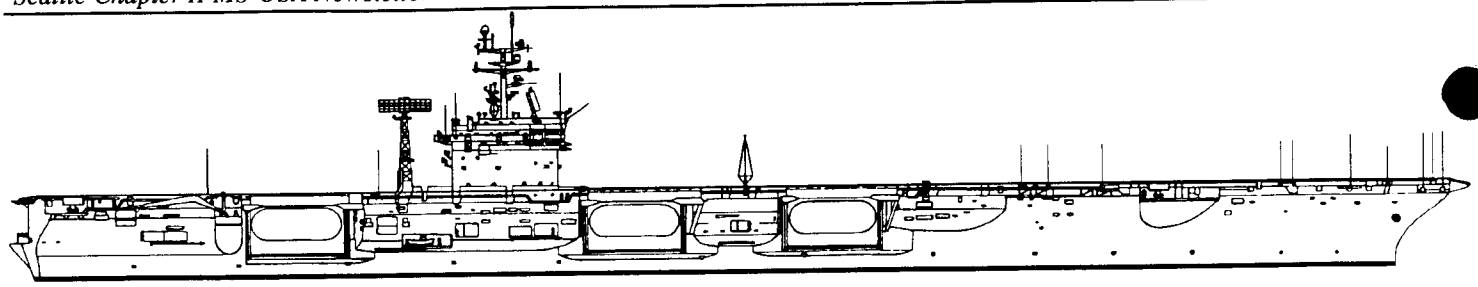
Frank
Tulsa Modelers Forum in Tulsa Ok

AeroMaster web site

I noticed a small mention in Kevin Callahan's latest Supply Depot brief, which caught my eye and I quickly checked out the new AeroMaster web site: http://www.mustangone.com/aeromaster/index.html. It's great, provides an outline of most of their recent decals (and paints) and with an click, you can see the two pages of art work which is provided in the decal sheet to support the modeler in building that kit. It's in full color and very useful. Not only allows you to see what's available, but what's new and still to come in the new future. With the quality and quantity of decals being produced by Gaston at AeroMaster, this is another very helpful tool for many of plastic modelers. Enjoy!



U.S. Navy Observation Squdron Three (VO-3)



U.S. Navy Aircraft Carriers

As some of you will remember, Jim Schubert gave us an excellent overview of the U.S. Navy's battleship fleet in our August '96 Newsletter. Well, not content to allow the notion to exist that more information can't be helpful, the following is a basic list of the U.S. Navy's carrier fleet, from beginning to current service. With all of the recent WW II modeling activity and the need for some basic references about carrier's, I thought I would provide this as an entre to carrier assignments. There is a great deal more that this that is needed in order to complete accurate USN WW II aircraft models, but this may at least put the carriers, their hull numbers and basic classes into some order for you to review and maintain. Construction, retirement, current status, dates.....anyone, anyone?

Langley		CV-1
Lexington		CV-2
Saratoga		CV-3
Ranger		CV-4
Yorktown	Yorktown Class	CV-5
Enterprise	Yorktown Class	CV-6
Wasp		CV-7
Hornet	Yorktown Class	CV-8
Essex	Essex Class	CV-9
Yorktown	"	CV-10
Intrepid	"	CV-11
Hornet	"	CV-10
Franklin	"	CV-13
Ticonderoga	"	CV-14
Randolph	"	CV-15
Lexington	"	CV-16
Bunker Hill	"	CV-17
Wasp	"	CV-18
Hancock	"	CV-19
Bennington	"	CV-20
Boxer	"	CV-21
Independence	Independence Class (CVL Light Cruiser Hull)	CVL-22
Princeton	"	CVL-23
Belleau Wood	"	CVL-24
Cowpens	"	CVL-25
Monterey	"	CVL-26
Langley	"	CVL-27
Cabot	"	CVL-28
Bataan	"	CVL-29
San Jacinto	"	CVL-30
Bon Homme Richard	Essex Class	CV-31
Leyte	"	CV-32
Kearsage	"	CV-33
Oriskany	"	CV-34
Antietam	"	CV-36
Princeton	"	CV-37
Shangri-La	"	CV-38
Lake Champlain	"	CV-39
Tarawa	"	CV-40
Midway	Midway Class	CVB-41
Roosevelt	"	CVB-42
Coral Sea	"	CVB-43
Valley Forge	Essex Class	CV-45
Philippine Sea	"	CV-47
Saipan	Saipan Class (Heavy Cruiser Hull)	CV-48
Wright	"	CV-49
Forrestal	Forrestal Class	CVA-59
Saratoga	"	CVA-60
Ranger	"	CVA-61
Independence	"	CVA-62
Kitty Hawk	Kitty Hawk Class	CVA-63
Constellation	"	CVA-64
Enterprise		CVN-65
America		CVA-77
Kennedy		CVA-67
Nimitz	Nimiz Class	CVN-68
Eisenhower	"	CVN-69
Vinson	"	CVN-70
Roosevelt	"	CVN-71
Lincoln	"	CVN-72
Washington	"	CVN-73
Stennis	"	CVN-74
Truman (under construction)	"	CVN-75
Reagan (under construction)	"	CVN-76

Contest Notes:

PENTATHLON '98

IPMS /SEATTLE
MARCH 14, 1998
THE ULTIMATE TEST OF YOUR MODELING SKILLS
BUILD ONE MODEL FROM EACH OF THE MAJOR CATEGORIES:
AIRCRAFT, AFV, AUTO, SHIP, FIGURE

RULES:

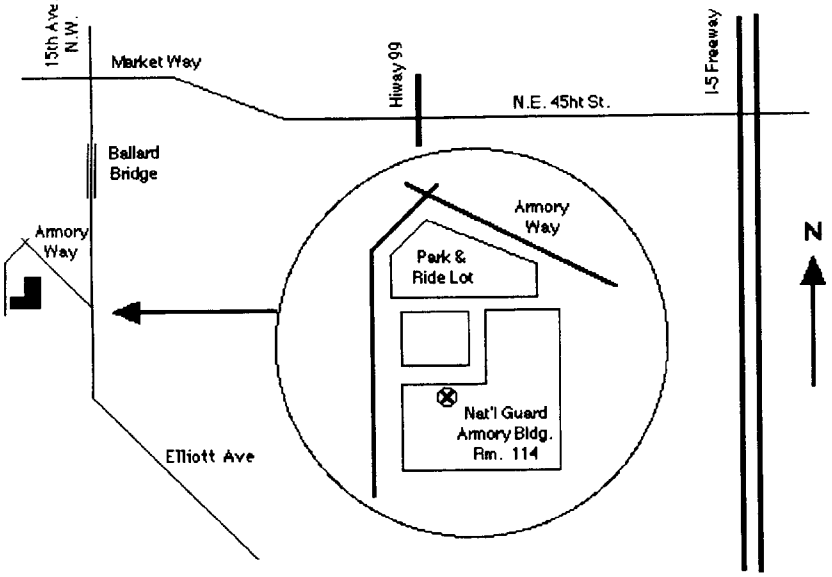
- NO SCALE RESTRICTIONS
- NO PREVIOUS PENTATHLON ENTRIES
- 2 MODELS MUST BE BUILT AFTER MARCH 22, 1997
- AIRCRAFT - ANY MANNED FLYING MACHINE EXCEPT MISSILES
- AFV - ANY MILITARY TRACKED VEHICLE OR ARTILLERY PIECE
- SHIP - ANY MAN MADE MARINE VESSEL
- AUTO - ANY CIVILIAN **CAR, TRUCK OR MOTORCYCLE**
- FIGURE - ANY **HUMAN** FIGURE
- THE 5 MODELS WILL BE JUDGED AS 1 ENTRY
- NO LIMIT TO NUMBER OF ENTRIES

FOR MORE INFORMATION CONTACT:
TERRY D. MOORE
3612 201ST PL SW
LYNNWOOD, WA 98036

Meeting Reminder:

Saturday, November 8, 1997

National Guard Armory
Room 114
1601 West Armory Way
Seattle



Directions: From North or Southbound 1-5, take the N.E. 45th St. exit. Drive West on 45th, crossing under Highway 99 (or Aurora Ave North) toward N.W. Market St. in the Ballard district. Continue West on Market St. toward 15th Ave. N.W. Turn left (south) onto 15th Ave. N.W. and drive across the Ballard Bridge until you reach Armory Way (just as you see the Animal Shelter). Watch for signs. You should park in the Metro Park & Ride Lot.

If coming from South Seattle, take Highway 99 onto the Alaska Way viaduct to Western Ave. Follow Western Ave. north to Elliott Ave. until it turns into 15th Ave N.W., then to the Armory Way turnoff.

Seattle Chapter - IPMS-USA
Terry Moore, President
3612 201st Pl. S.W.
Lynnwood, WA 98036

SEATTLE WASH. NOV 7 1997

James Schubert
230 173rd Pl. N.E.
Bellevue, WA 98008

November Mtg: Nov. 8th