



I am on the horns of a dilemma. For 30 out of the last 40 or so years in this hobby, I have been seriously collecting reference books and magazines. Most magazines I buy because I have been buying them since they first appeared and there is always something of interest in them for me. I have a number of Volume 1/Number 1 issues. However, space to keep all these publications is rapidly diminishing. The stack of magazines next to my bed is about 2' tall and the space on my bookshelves can't possibly hold what I have to file. I don't think that waiting for one of my boys to move out so I can use the extra room will be a solution. Another problem is that one of the reasons I buy these magazines is to use as a reference for models I want to build. I remember a picture of a certain WWII British type in U.S. markings that there is now a kit for. Problem is, what issue of what magazine how many years ago did that picture appear? The collector side of me says you have to keep these magazines intact for the benefit of future generations, but the realist side says to keep only the portions of the magazines that you feel are relevant to your hobby and your own personal interests. From where I stand, it would appear that what I have in my magazine collection is of interest only to me and that I would be better served and would get more use out of my references if I kept only those articles that appeal to my modeling interests. What do you think

Now, to the lighter side ...

I have a few rants & raves to get off my chest. If you will allow me: Rave: Tamiya's latest kits(any of them)

Rave: Accurate Miniatures TBF & SBD kits

Rant: The one piece box for the Pro Modeler SB2C Helldiver Rave: The Pro Modeler SB2C Helldiver

Rant: The irregular printing

schedule for MMP (a 12 issue subscription is about 2.5 years worth)

Rant: Some of the True Details resin conversion bits appear to be only slightly modified kit parts (i.e. PBY, Betty Bomber)

Rant: Some model reviewers comparing kit outlines to drawings published by some other source than a manufacturer's drawing (who believes that all the *In Action* drawings are accurate)

Rant: Some model reviewers comments about a wing span or fuselage being short by 6 scale inches or less (get a life!)

Rave: Any modeler that builds a model out of their area of interest (airplane builder does a car model, etc.)

Oh yes, by the way, if you have any comments or opinions about what I write or you have your own rants or raves, feel free to call me. I am available home most evenings after 7 pm. My phone number is 425-774-6343.

See you at the meeting and the best of the Holidays for you and your family, Terry

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Hey guys, don't forget! Our December meeting is our usual "Christmas Cheer" meeting. One of the highlights is that everyone is asked to bring some type of holiday combustible (food or drink) for our Christmas meeting buffet. You know, cookies, fruitcake, egg nog, softdrinks, coffee, etc. The club will provide paper plates, napkins, cups and ice. See you'll on Saturday the 13th! While it has been described as a "pig out" by at least one officer, it promises to be a fun time and we still hope to see you there.



# 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. All meetings begin at 10:00am on meeting Saturdays.

1997

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)

# WORLD WAR I MILITARY **AVIATION**

A shallow survey for model builders and casual readers of history

by Jim Schubert IPMS 2159

I thought it would be a good project to build a model airplane for each of the combatants in WWI. Sounds easy doesn't it? Ok then; who were they? Easy: Germany and Austria were the bad guys; Britain, France, Russia and the U.S. were the good guys. Right? Nope. As the list of probable combatants was not long, I imagined this would be a quick project. It has turned out to be pretty difficult.

I figured the first step would be to list the bad guys (The Entente Powers) and the good guys (The Allies). Well, it wasn't easy. To be sure that I had accounted for all of the belligerents I had to account for all of the nations of the world, and where they stood politically, in the 1914-18 period. A lot of places that are nations today did not exist as sovereign states then. I'm not sure I've got this subject cornered yet. I wrote to some WWI experts who, disappointingly, were not interested in thoroughness on the fringes of the Great War. So, if you have additional or contrary information, or questions, please share.

The list below is the current result of my efforts. It appears that all of the Entente Powers operated airplanes in combat and that fewer than half of the Allies did so. The list of the Allies is quite misleading as many of them did not sign up until the outcome was clear and they joined the winning side only to get a seat at the treaty table where the victors, now including them, would carve up the world for future trade and empire. To be sure there were many honorable neutrals,

which stayed on the sidelines rather than jump on the bandwagon near the end of the conflict. Here then is my list:

#### KEY:

DBO = State which designed, built and operated airplanes in combat.

= State which operated, in 00 combat, only airplanes designed in other states

(blank) = State which operated no airplanes in combat.

#### **ENTENTE POWERS:**

- DBO German Empire Austro-Hungarian Empire - DBO -00 Ottoman Empire -00 Bulgaria

#### ALLIES:

- DBO British Empire - DBO France - DBO Imperial Russia - DBO Italy -00 Belgium -00 Greece -00 Japan -00 Roumania -00 Serbia -00 United States Bolivia

Brazil China Costa Rica Cuba Guatemala Haiti Honduras Montenegro Nicaragua Panama Portugal

#### NEUTRALS:

Siam

Afghanistan Albania Argentina Chile Colombia Denmark Dominican Republic Ecuador El Salvador

Mexico

Nepal Netherlands Norway Paraguay Persia Peru San Marino Spain Sweden Switzerland Tibet Uruguay Venezuela

Colonial states, commonwealth states, possessions, protectorates, states not yet created, states otherwise then lacking sovereignty, etc., or which (Australia, New Zealand, South Africa and Canada for example) operated no airplanes with national insignia different from those of their principal states are not listed. Very many of today's nations were created as a consequence of WWI.

#### AIRPLANES EMPLOYED:

I will not address this for the main combatants, as you all know about the Fokkers, SPAD's, Camels, etc. I had to dig to find what the lesser known powers used. Leo Opdycke, publisher of World War I Aeroplane, and August G. Blume, membership secretary of The League of World War I Aviation Historians, were both of great help in this area.

Ottoman Empire: (Actually detachments from German forces) mostly the Fokker E.III Eindecker.

Bulgaria: Bleriots, Bristols, early Albatri, Farmans...

Greece: Farmans, Sopwith pushers, DH-4s, DH-9s, Pups, Camels....

Japan: Farmans, Shorts, Nieuports, SPADs, Salmsons, Grahme-Whites, Curtiss flying boats...

Roumania: Bleriots, Bristols, Nieuports, Morane-Saulniers, Farmans...

Serbia (Servia): Bleriots, Nieuports...

This listing is clearly incomplete. None of my references are very specific regarding airplane usage; I'm still working on it. Help.

#### INSIGNIA:

A subject worthy of a separate indepth article...maybe someday. Suffice it to say for now that by the end of 1915 the Allies' wing insignia were all roundels (discs) of one or more colors and the Entente Powers' wing insignia were all based on the square, although later in the conflict the German/Austrian white square background for the cross devices was generally abandoned in the interest of reduced conspicuity.

As a generalization it can be said that very early in the war identifying insignia were, as often as not, absent from most airplanes. It was not until near the end of 1915 that insignia were generally displayed.

Briefly then the various insignia:

#### **Entente Powers:**

German and Austro-Hungarian
Empires: A black Maltese cross (early in the war), or a straight equilateral cross, on a white square; in the usual six places plus a black cross on a white fin/rudder.
Crosses were sometimes outlined black.
Austria-Hungary, to difference their airplanes from the German's, frequently added large panels, or stripes, of their national colors, red and white, to the mainplanes and sometimes to the tailplanes as well.

Ottoman Empire: A black square; in the usual eight places. The square frequently being outlined white and black.

<u>Bulgaria</u>: A black Maltese cross on a white square with a thin black cross of St. Andrew (an "X") joining the corners of the square; in the usual eight places.

#### Allies:

All are roundels (discs). Colors are given from the center out. The thickness

of the central spot (the "bullseye") and the rings were about equal unless otherwise noted.

Britain: Red/white/blue; in usual six places; equal red/white/blue vertical stripes on rudder with red, generally, foremost.

France: Blue/white/red; in usual six places; tail stripes as the British but with blue, generally, foremost.

Russia: White/blue/white/red/white in usual eight places. The Russian roundel was of altogether different proportions from those of the other Allies. The white center was very large, the white rings were very thin and the blue was very dark - almost purple.

Italy: Red/white/green; in usual six places; rudder stripes with red foremost. The Italians often added large panels, or stripes, of red/white/green to the mainplanes; sometimes covering the entire wing. They also frequently carried the rudder stripes over onto the elevators.

<u>Belgium</u>: Black/yellow/red; in usual six places; rudder stripes with black foremost.

<u>Greece</u>: Light blue/white/light blue; in usual six places; rudder stripes in same order.

Japan: Plain red disc; in usual six places; fin rudder generally unmarked, although the Army frequently carried a red star on the rudder.

Roumania: Blue/yellow/red; in usual six places; rudder stripes with blue foremost.

Serbia: Red/blue; in usual six places. I have found no references yet to fin/rudder insignia.

United States: White/blue/red; in usual six places; rudder stripes as British.

NB There are exceptions and variations to all of the above descriptions. Have a reference photo, or a rendering from a trustworthy source, to hand before you do any WWI markings.

PLEASE! I've asked for feedback on every article I've ever written and I have only gotten it once. If you have any reference material that adds to, deletes from, or corrects what I have written, please share it. James J. Schubert 230 173rd Pl. N.E. Bellevue, WA. 98008-4104 U.S.A phone: 1-425-747-9517

fax: 1-425-746-4655

#### REFERENCES:

- A. The Times Atlas of World History; Times Books, Ltd.; London; 1983.
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   Merriam-Webster, Springfield,
   MA, date uncertain but pre 1947
- E. Webster's Third International
   Dictionary unabridged;
   Merriam-Webster, Springfield,
   MA.; 1966.
- F. Jane's Fighting Aircraft of World War I; Jane's Publishing Co. (Crown), New York, 1990 ISBN 0-517-03376-3
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#### Modeler's Notes:

# JAPANESE ARMY BOMBS CONSTRUCTION, COLOR CODES AND MARKINGS

by Rick Goldsberry,
Jacksonville Chapter
Standard high explosive bombs
utilize three piece construction; tailcone,
body and nose. All army bombs except
those carried in containers are suspended
by a single hinged rectangular lug located
at the center of gravity.

High explosive bombs are painted BLACK overall. A RED band around the tip of the nose indicates that the explosive is loaded in the bomb case only and not in the tail cone as well. Most of the Japanese Army bombs were loaded with explosive in the tail cone so this marking is rare. A WHITE band forward of the suspension lug indicates that the bomb case is made of high-grade steel. A YELLOW band forward of the WHITE band denotes a high explosive filler.

Incendiary bombs with a solid filler are painted with a GOLD primer on the body only, then painted BLACK overall with a WHITE band forward of the suspension lug. The symbol for incendiary bombs is stenciled on the bomb in WHITE.

All liquid filled incendiary bombs are painted GRAY overall. The same WHITE band denoting an incendiary bomb, forward of the suspension lug is found on this bomb as well.

Liquid filled smoke bombs are GRAY with a RED nose band and no body band. They are marked .with the symbol for smoke in WHITE

(Cont'd on top of page 18)

# Luftwaffe RLM - FS 595a Colour Cross Reference Chart

David E. Brown, 1996

What follows is a compilation of Luftwaffe colours and their Federal Standard equivalents based on previously published research by recognized authorities on Luftwaffe camouflage and markings. For each RLM colour an interpretation is given as to which FS 595a shade is the most likely equivalent. Sometimes all sources are in unanimous agreement as to a particular colour and the "Best Estimate" reflects this. Conversely, there are cases where considerable latitude exists in matching a particular RLM shade to a Federal Standard equivalent. Examples of such cases include the RLM 81/82/83 series of colours for which no official RLM colour card was issued, highly variable colours like Grauviolett / Mittelgrau RLM 75, and so on. Thus, the final interpretation comes down to many factors. Who's right? You decide. Finally, please note that the vintage of some sources precludes the author's commenting on certain colours which were unknown at the time of publication.

If possible, readers are urged to consult the original references for further details and comments not stated here for a variety of reasons (space, mostly). Regrettably, most of the publications from which these data are derived are no longer in print, but perhaps the data presented here can serve a useful purpose to those enthusiasts new to this subject. In some cases, (e.g., Merrick, 1973; and Munson, 1973), their RLM colour descriptions were originally determined using the Munsell colour system. For this compilation, these designations were converted to Federal Standard ones using other references where colour descriptions using both systems were presented.

Please note the following abbreviations which are keyed to references listed below: "MPG" Pentland and Hitchcock (1980); "Merrick" = Merrick (1975, 1977); "Munson" = Munson (1978); "LCM" = Smith et al (1976, 1977, 1979). "MPG Page #" refers to the specific page in Merrick and Hitchcock's Monogram Painting Guide where a paint chip of the RLM colour is presented. The plus (+) and minus (-) symbols in the far right column indicate that the most likely FS 595a colour match is either slightly darker or lighter than, respectively, the RLM colour paint chip. The abbreviation "tr."

means "a trace of", or in other words, 'a little bit of'. Where no reasonable FS colour matches are possible, a range of colours is given with the understanding that the true RLM colour falls somewhere between the lighter and darker tones. To fully appreciate the subtleties of these colour definitions, one should carefully study and compare the samples of Luftwaffe-related paints in Merrick and Hitchcock (ibid.) or Smith, Pentland, and Lutz (1979) with their own or commercially prepared paint mixes of RLM colours.

#### References:

Klaus, D., 1988: The IPMS Color Cross - Reference Guide. IPMS-USA Inland Empire Chapter, San Bernadino, California, 168p.

Merrick, K. A., 1975: Luftwaffe Colors - Volume 1: Arco Publishing Company, Inc., New York, 164p.

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Merrick, K. A., and Hitchcock, T., A., 1980: The Official Monogram Painting Guide to German Aircraft 1935-1945 (including Appendices and Errata Supplement). Monogram Aviation Publications, Boylston, Massachusetts, 144p.

Munson, K., 1978. German Aircraft of World War 2 in Colour. Blandford Press, Poole, Dorset, 160p.

Smith, J., R., and Gallaspy, J. D., 1976: Luftwaffe Camouflage and Markings 1935-45 - Volume 2. Kookaburra Technical Publications Pty. Ltd., Melbourne, 164p. (Also published by Monogram Aviation Publications under the title "Luftwaffe Colors").

Smith, J., R., and Gallaspy, J. D., 1977: Luftwaffe Camouflage and Markings 1935-45 - Volume 3. Kookaburra Technical Publications Pty. Ltd., Melbourne, 164p. (Also published by Monogram Aviation Publications under the title "Luftwaffe Colors").

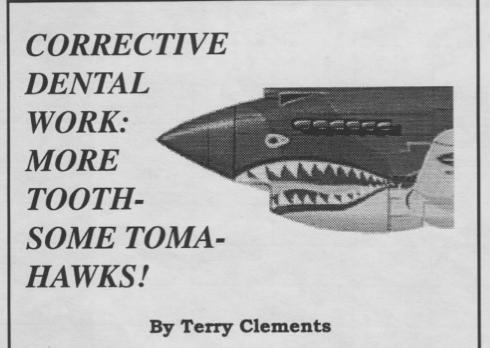
Smith, J. R., Pentland, G. G., and Lutz, R. P., 1979. The Modellers Luftwaffe Painting Guide - With Color Chart. Kookaburra Technical Publications Pty. Ltd., Melbourne, 88p.

[please refer to tables on next two pages]

# Luftwaffe RLM - FS 595a Color Cross Reference Chart

RLM	Farbe	MPG	Merrick	Munson	LCM	Klaus	Best Estimate
	Color	Pg#					17170
01	Silber silver	113	n/a	17178		17178	17178
02	Grau grey	13	24226	24159/ 24226	34226	36165	36165+
03	Silbergrau silver grey	n/a	n/a	n/a	n/a	37200	37200
04	Gelb yellow	11	23538	23538	23538	23538	23538
05	Lasur	35	13618	n/a	13618	37880	13618
21	Weiss white	11	n/a	27880	n/a	37886	27880
22	Schwarz black	11	n/a	27038	n/a	37038	37038
23	Rot	11	31136	21032	31136	31350	31302
24	Dunkelblau dark blue	11	35053	25053	25053	35053	35053
25	Hellgrün bright green	11	34108/ 34260	24115	34108/ 34260	24115	34108/ 34260
26	Braun brown	11	20109	20109	20109	30109	30109
27	Gelb	11	33655	23481	33655	33637	33637
28	Weinrot wine red	11	20061	20049/	20061	30022	30022
61	Dunkelbraün dark brown	73	30109/ 30177	30045/ 30099	30045	30040	30109/ 30177
62	Grün green	73	34258	24128	34128	34128	34128
63	Graugrün grey-green	73	24226	n/a	24226	36165	24226
64	Lichtgrau light grey	73	n/a	n/a	n/a	35414	35414+
65	Hellblau bright blue	19	35414	25414/ 25622	35414	35352	35352+
66	Schwarzgrau black-grey	13	36076	26081	36081	36081	36081
67	Dunkeloligrün dark olive green	81	n/a	n/a	n/a	34098	34098+

68	Hellolivgrün bright olive green	81	n/a	n/a	n/a	34097	34097+
69	Lichtlohfarbe	81	n/a	n/a	n/a	33596	33596
70	Schwarzgrün black-green	19	34052	34052	34052	34050	34052+
71	Dunkelgrün dark green	19	34079	24079	34079	34079	34079
72	Grün green	95	37056	24056	37056	36081	34056
73	Grün green	95	34092	24077	34092	36081	34092
74	Graugrün grey green	25	36081	26081	16099	34086	36081+
75	Grauviolett grey violet	25	36173	26118	26152	36122	26132
76	Lichtblau light blue	25	35622	25622	n/a	36473	36473+ add true blue
77	Lichtgrau light grey	55	36492	26408	16492	63493	36492+
78	Hellblau	111	35414	25414	35414	35352	35352/ 35414
79	Sandgelb sand yellow	111	30252/ 30257	20227/	30219	30215	30215/ 30219
80	Olivegrün olive green	111	34096	24102	14077	34052	34096-
81	Dunkelgrün dark green	37	n/a	24091/ 24087	24087	34096	24087
81	Braunviolett brown violet	37T	34102/ 34127	24091/ 24087	24087	34087	34083 add tr. brown
82	Hellgrün bright green	37T	34108/ 34110	24110	34138	34138	34128/ 34227
83	Dunkelgrün dark green	35B	34373	24906	34096	34096	34083
99	Gelbgrün yellow green	143	n/a	n/a	n/a	34227	34227-
?	Graublau grey blue	41L	n/a	n/a	n/a	35622	35622-
?	Grünblau green blue	41C	n/a	n/a	n/a	34554	34583/ 34672
?	Graublau grey blue	41R	34554	n/a	n/a	34432	34432+
?	Grau grey	35	n/a	n/a	n/a	n/a	26360/ 26405
?	Hellgrau light grey	143	n/a	n/a	n/a	n/a	36357/ 36559



I really hate to make mistakes. That's probably why I finish about 1.5 models per year. In a good year. As soon as I get done with the paint job someone publishes a monograph - finally! - on the subject which reveals that everything I knew was wrong! I hate that. So why ever finish? If you wait just a while longer, all those nagging questions will be answered. Or not. I guess the same thing applies to the research data itself too, at least when you're publishing it yourself. Since my articles on AVG camouflage and markings appeared in the Seattle Chapter News (November, 1996 and April, 1997), and my booklet on the same subject, several readers have written to point out a couple of errors in the drawings, one of which was pretty serious. (My shocking expose of Curtiss' flagrant disregard of British paint specifications has so far been unchallenged by the critics.) But, hey, I take full responsibility - it was my fault - I screwed up - I'm a sick little monkey and I need a full time research assistant! Well, you get the picture. Seriously, though, I think I'll just continue to research this subject for the rest of my life. It could be done, too, and with nothing but "interim" findings and "tentative" conclusions, I'll never be wrong again! Not really, of course, but a second, improved edition of my book is in the works, and those cards and letters do keep trickling in.

So put a big "X" through the drawings and caption for Tomahawk #13 in the April issue of the newsletter - here's the right stuff, and for the first time anywhere, which is a pretty good consolation prize. See the original newsletter articles (or my booklet) for information on the camouflage colors and patterns that apply to these subjects.

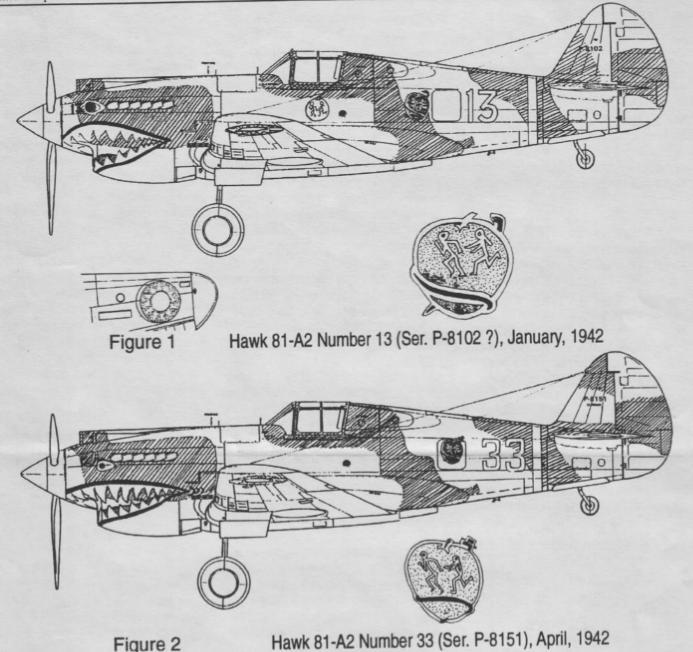
Oh, and the CAF serial for Tomahawk #7 was P-8146, at least most of the time!

I would like to acknowledge the invaluable assistance of AVG aficionados Ben Levario of Anaheim, California, and Bruce Fraites of Taylor, Michigan in providing material that made these corrections possible. Thanks!

Figure 1: Hawk 81-A-2 number 13 (CAF serial P-8102?), January, 1942: Although this plane has been associated with Robert Little in virtually every source published since the war, in fact Little flew it only for a short while during training, and it was then assigned to James D. Cross. The squadron identification band appears to have been either "toned down" in some fashion (rubbed with dirt?) or painted a pale gray rather than white in order to make it less conspicuous. The small nose number was treated the same way. All other numbers and lettering were

the usual white, including the pilot inscription in the usual location: "PILOT/, J.D. CROSS". The CAF serial for this plane has been given as P-8170 in every published source up till now, but examination of newly-published photos indicates that this is incorrect. A more likely number is P-8102, but P-8187 is possible too, given the quality of the photos and the planes in service on the date they were shot. The first squadron "apple" insignia was in the usual light green, with a white outline and a white stem, a black snake fully outlined in white, and white stick figures, but without any lettering. Some photos of this plane show a chalk outline of a smaller apple insignia directly under the cockpit on the port side, as illustrated here. This sketch was undoubtedly left after the artist learned that the insignia was supposed to be placed further aft, and it probably wore off within a few days. The shark mouth was in black, white and red. The eve appears to have featured a large black pupil trimmed in red. Wheel covers were light gray. Note that there is evidence of over-painted roundels on the bottoms of the wings of this plane (with color just noticeably lighter than the camouflage), and a rear-view mirror mounted above the windscreen. This aircraft was considered a "lemon," and available evidence indicates that it was written-off and parted-out to plane number 53 (P-8170, hence the serial number confusion) in late February, 1942.

Prior to joining the AVG, James D. Cross had been a ferry pilot flying aircraft to Canada for delivery to the British. He was among the last to reach the AVG's training base at Toungoo, arriving on November 12, 1941 with 25 other pilots. He got off to an inauspicious start when on his check flight in plane #11 his engine blew a rod and caught fire, forcing him to belly-in from 1000 feet. He was in some of the AVG's earliest scrambles while on alert duty at Toungoo in early December, 1941, but did not encounter the enemy. Finally, on December 20, he was a wingman in the AVG's first combat mission, from Kunming, where apparent he was credited with .27 victories, his to for his AVG service. He later wrote about this experience in the December 12, 1942



issue of Mechanix Illustrated. But by mid-January, 1942 Charles Bond was describing him in his diary as a "red-ass," or chronic complainer, and on February 14 Cross told Bond he was going to resign. But the next day his attitude improved when he was promoted to flight leader.

On February 21, 1942 he was one of six Flying Tigers fighting 23 77th Sentai Nates and bombers near the Salween river gorge. Five days later, in a battle with Nates of the 50th and 77th Sentais, he was wounded in the face and arm by shrapnel and flying glass from several 7.7 mm rounds through the cockpit. He was

subsequently taken to India for medical treatment. In May, 1942 he participated in a poorly conducted operation ferrying some P-43 Lancers from India to China. Apparently he flew no more after that, and served out his AVG contract as a liaison officer with the Nationalist Chinese Air Force in Chongqing. After the disbandment of the AVG he became a pilot for Pan American Airways.

Figure 2: Hawk 81-A-2 number 33 (CAF serial P-8151), April, 1942: This plane was assigned to Robert Little, a flight leader in the first squadron. The fuselage band and all lettering and

numerals were in white, and the small nose number was painted over with green paint at the time the shark head was added. Note that the second "3" is slightly larger than the first. Pilot inscription in white in the usual location: "PILOT/R. LITTLE". Also note the crew chief's name below the fin serial (Curran). The "green apple" squadron insignia was outlined in white, with the usual white stick figures, with a black stem. The black snake was not outlined, and it wore a black top hat. There was no lettering, and note placement over the radio access door. Wheel

covers were Dark Earth. The shark mouth was painted in the typical black, white and red colors with camouflage showing inside, but there was also a thin brown or maroon edge on top of the tongue. Note also the three white "dimples" at the rear of the mouth. The pupil of the eye was tan or pink with a small brown or maroon dot in the center. There was also a thin tan or pink stripe on the upper forward edge of the eye.

Bob Little was a veteran of the 8th Pursuit Group, and one of only a few Flying Tigers who had actually flown P-40s prior to joining the AVG (having 375 hours in the type). He was a flight leader and, for a while, group engineering officer. He flew in the AVG's first interception mission over Kunming, China on December 20, 1941, and in many of the bomber interception and air superiority battles over Burma and southwestern China in early 1942. Despite many combat hours, his record of victories grew only one or two at a time. His final score was 10.55. He was killed on May 22, 1942 (by AAA or a premature bomb detonation) while flying a Kittyhawk on a ground attack mission against Japanese troops at the Salween River gorge.

# Manufacturer Review by Bill Osborn

Our beleaguered editor has complained that not too many people are writing kit reviews. So I thought I would take my stubby crayon in hand and make an attempt. Actually this is not a real kit review as much as a review of a kit maker.

I believe it was at the national convention in D.C. that I first came across a kit by this firm. There were a few releases before I found the kit I purchased. However, then it was a Breguet Atlantic in 1/72nd. The price was rather high, but what the heck that's what we go to the Conventions for isn't it? Since then I've picked up several of this company's products. Some times it takes me a long

time to learn. I know of only two other persons who have finished something from these people. You'll note that I said "finished." Not too many modelers want to spend the time and effort.

By now some of you have guessed that I'm talking about Mach II. This is a French company and is no competition for Heller. When you open the box and look at all the parts, you think you've hit the jackpot. Just look at the engraved panel lines, full interior and fairly good looking decals. Maybe some alternate parts for different versions.

I will say this, they do put out some great subjects. The Alezez, Votoura, AJ Savage, Leduc 001 & 002, Sea Dart, RB-57 big wing, a Do 23, Mysteir Falcon to name a few.

OK, you've paid out enough money for a family of four to have a big night out, but not as much as they would for a Hawks game at the Dome. You rush home and right into the hobby space. Grab the nippers and start dry fitting parts. Well things aren't too bad, panel lines only a little off, but they are not real crisp. (About this time you should reread my masochist article in the September issue)

The plans, you can't really call them instructions as there are very few words, mostly pictures which do help, but the parts are not numbered so its kind of hard to tell what and where they go. As you start assembly, more of the kits' shortcomings will become clear. Leading and trailing edges are thick and blunt. mating edges are not crisp and need to be dressed down. No locating pins. The parts look like the molds were made from some sort of soft material. Small parts, wheels, gear struts, props, interior and such are soft looking, as if the pattern was pressed into clay then wiggled a little to remove it. Canopies and windows are on the heavy side and need to be polished out. They also tend to be non symmetrical.

As assemblies start going together you may notice that wings and horizontals probably won't line up from side to side or top to bottom. There is an abundant amount of flash on small parts or in some cases misformed or mismatched parts. Some of the larger surfaces suffer from shrinkage. Sometimes this can be removed during the leading edge and trailing edge trimming.

After all the trouble with parts and misalignment have been fixed, the surfaces need to be smoothed up, panel lines rescribed and the glass worked so that it fits. The overall appearance is very good. Decals are good, but the film is thick and opaque. Also there is a chance that after a few weeks they may fall off.

No color schemes are given, there are no three views and no reference given. So, if you like to lay out \$40 to \$60 for a kit that really need a lot of work, but will be a topic of conversation at the next contest and most likely you won't see another model like it anywhere, then Mach II kits are for you. And you have my sympathy!

Bill

# An Afternoon In Modeler's Heaven by Ned Shaw

It was the sight of people carrying plastic bags with a large TAMIYA logo that assured me I was nearing the National Model and Hobby Show. They were coming from a huge building, Rosemont Convention Center, near Chicago's O'Hare Airport (about a five minute walk, south of the Rosemont Station of the Blue Line EL). The Show, for the Hobby trade, was held this year ('97) in the first week of Oct. with the general public admitted Sat & Sun, 4th & 5TH. This is where retailers from across the country meet suppliers and examine the current and upcoming product lines. Along with large and small booths of wholesalers (see example list below) 5 model associations and 15 local retailers. Over 375 booths in. all, were represented. With 22 aisles, demonstration areas for slot cars, Radio Control (R/C) cars dirt track, R/C boat

(Cont'd on page 16)

# Air Exhaust System Painting & Finishing Models- Part II

# by Ted Holowchuk

#### Introduction to Chapter 2

I Tell here we are again, This time we will talk about another "non-modeling" expense, an exhaust system. We will refer to it as a spray booth from here on. A spray booth is a good idea for all painting. Even water based paints have chemicals in them that are not too good for you. I use mostly solvent-based materials; lacquers and enamels and I think a spray booth is necessary./ Now that I've said that, I can't resist sharing a little story. I am amazed at the quality of work done without a spray booth. It sort of makes a mockery of my ideas. Did you know that one of our finest modelers who will go nameless, (lest he try to hurt me) paints by spraying with a one-lunger compressor into a waste basket? Oh my! So much for my brilliant ramblings. However, he is in the process of change. For a start I know that he got himself a carbon dioxide cylinder air supply system.

Anyway, some system to exhaust those smelly, harmful fumes from your spraying area is well worth your consideration. A number of commercial units are available. Finescale Modeler Magazine reviewed six commercial units in February 1992 (p34) and March 1992 (p68). The prices ranged from \$80 to \$395 in 1992. The most expensive and best unit, with an excellent review is priced today at \$475. The results of those reviews was interesting. As I stated, the most expensive unit was rated as excellent. The second most expensive unit was rated good. One was sort of OK and three were rated not adequate. The inexpensive units are not worth spending your money on - my opinion.

When you take a look at any spray booth you will see that they are nothing more than a box with an exhaust fan, filter and sometimes a light. Well heck I can build that without spending \$ 475. Help and information came about building a spray booth came from an excellent article in Model Railroader Magazine from Jan 1988. Finescale Modeler had a brief article in February 1993 (p38) that also gives some information. Upon request I can provide a copy of the 1988 Model Railroader article. Why not build a good safe, easy to use system that you can custom design to fit your needs?

#### How To

Begin by determining the location and size of your booth. Decide where the fan and exhaust vent will be located as well as the most direct "path" to your electric power supply. The Model Railroader article had you build the box out of sheet metal. Me not being a metal worker and not wanting to pay for one, I looked for alternatives. I found a good substitute by using a 5/8" particle board faced on both sides with melamine, a plastic laminate, that really helps with lighting and clean up. Remember always have a clean neat workshop, right? This product is a shelving item and is available at most large lumber supply stores. A list of items required, prices and sources is at the end of this article.

The recommended light is a GE
Britestick as used in the \$475 unit. The
exhaust fan, the heart of the system is a
Dayton unit, also the same one used in the
\$475 unit. It is a squirrel cage blower
with the motor outside of the airflow. It is
rated at 495 cfm (cubic feet per minute)
and will "pull the paint right off your

models". In addition you will need some scrap plywood pieces, foam carpet scraps, electrical cord, switches, boxes & outlets as well as a dryer ducting flapper vent and adapter. Believe me it is not as difficult as it sounds.

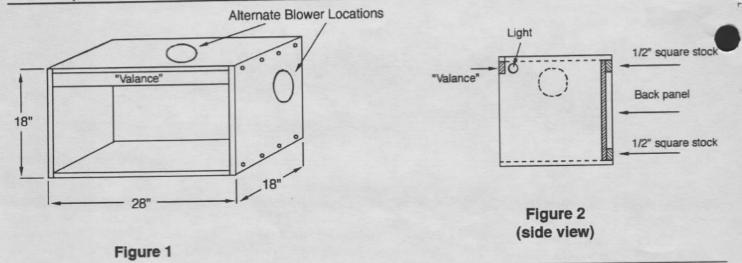
#### **Building The Box**

Here is how. To begin with you will have to cut the melamine board to sizes required. The dimensions in Figure 1 are only examples and can be changed to suit your needs. The use of a table saw is really helpful although a skil saw or saber saw can be used. Look at Figures 1& 2 To get an idea of the design and size. Adjust sizes to your needs.

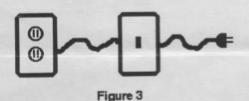
Cut the top, bottom and side panels. Pilot drill all holes and screw panels together using coarse thread sheet rock screws (best for particle board). Cut the 3/ 4" square stock (fir or pine) to fit all four panels, inside the box. Cut a back panel to a snug fit inside the box. After completing installation of the light and fan, screw the back panel to the 3/4" square stock strips from the inside. Incidentally, I have used some 1/4" masonite with a vinyl covering for a back panel instead of the 5/8" melamine. Feel free to scrounge and substitute. A valance about 2 1/2" wide should be cut and screwed to the inside, top edge of the box. This cuts down on the glare from the light.

### Mounting The Light

Using the GE Britestick instructions, mount the light inside, behind the valence. Check which side of the box you want to mount the electrical. On that end drill a 1" hole for the light cord and line up the hole



with the end of the light. While we are on the electrical, you may as well complete the wiring. Again, you can design whatever you want. I kept it simple, by making a "switched" 2 plug extension cord and just plugged the light and fan into the box.



You now have the spray booth built.

All that is left is mounting the fan and ductwork.

## Mounting The Fan And Ductwork

Locate the place for the fan, (top, side or back). Cut a 61/2" hole through the box panel for the "exhaust in". Instead of mounting the fan right to the box, cut a plywood panel slightly larger than the fan housing and cut a 61/2" hole for the "exhaust in". Using sheet metal screws mount this panel to the fan. Make sure the screws are not too long and jam the squirrel cage. Now, drill holes in the outer edge of this panel, cut a piece of foam carpet padding (for noise and vibration insulation) and screw this panel to the box, making sure you first line up the "exhaust in" holes. Also cut the hole in rubber carpet pad. Refer to Figure 4.

Now the other end or "exhaust out". This is a flanged rectangular opening. Cut a 4" hole in the center of this panel and fit

and fasten a metal dryer duct adapter into the hole. Now screw the panel to the "exhaust out" flange refer to Figure 5. You now should have the box, light electrical and fan installed. Now remember, that back panel, set it in place and fasten it in place.

#### The Filter

Lets make a filter holder and install it. See Figure 6. I use filter material that I buy in bulk, then cut to size as I need it. To make a filter holder you can use a heavy gage wire material called "Hardware cloth" or "utility fence material". You can buy a small piece at McClendon's Hardware or scrounge up some. Make the filter holder about 8" square. You will need a piece of screen 8" x 17". Bend it into a "u" shape with the long legs at 8" and about 3/4" in thickness. Cut filter material to fit and sandwich it between the top and bottom of the holder. Pretty clever eh? (A Canadian term). Now to hold this filter in place, cut 2 pieces of 3/4" stock and fasten them inside the box, parallel to each other on either side of the 61/2" hole for the "exhaust in". Make 3 or for metal tabs from plumbers tape (or buy those window screen holding doo-hickeys) about 2" long and screw them to the wood stock. Insert the filter, twist these "doohickeys" and you are done.

#### The Exhaust

Oh I forgot. Where does the "exhaust out" go to? Well, that is up to you. Back in the room? No. Decide where you want to run the duct work to the great outdoors. A hole through the wall, a window or whatever. Hopefully it will be a semi-permanent unit that you can take to your dream workshop someday.

If a window is available you can cut a panel from exterior 1/2" ply to fit the window opening. Install the plywood, close the window on the panel and seal caulk if you feel it is necessary. Now cut 4" hole in the panel and install a dryer vent with flapper from the outside. Hook up the outside vent with the "exhaust out" on the booth using vinyl or aluminum flex dryer hose. See Figure 5. Clamps or duct tape can be used on the connections.

Also, keep the dryer hose run as short as possible and as straight as possible. Now plug in the electrical, flip on the switch, grab your airbrush and paint up a storm.

OOPS! Also for your information, all spray booths need a source of fresh air. That means an open window, door or whatever in order for the system to work. You cannot work in an airtight room. You need some cross ventilation. I will also mention masks (for us ugly guys) or respirators. Some of you may still feel the need to wear a respirator even when using a spray booth. A dual cartridge respirator with replaceable filters is recommended One designed for use with paints and lacquers. Buy a good one.

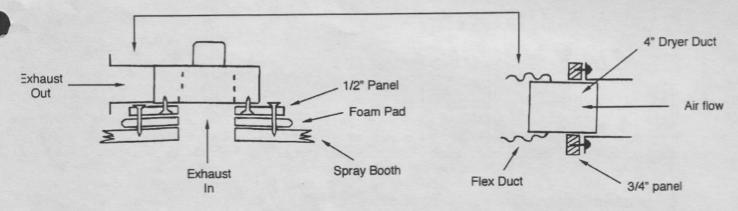


Figure 4

I think that about does it and again, if you have any questions or comments please just ask away.

Next time we will talk about airbrushes and maybe start on the "materials" (paint) used by us mad modelers. Gotta go get started on the next part of this....

#### Material List:

I have purchased or priced all these materials and equipment during the last few months. Most items are available at stores like McClendon's Hardware, Home Depot, Eagle, Sherwin Williams Paint, or Rudd Paint in Seattle.

Grainger Industrial and Commercial Company will usually only sell to businesses, however some hardware stores (McClendons) will order parts from the Grainger catalog for you. If you have any problems with this item contact me and I can help out.

The total cost for this project should be about \$165.

Editor's note: Once again, I would like to thank Ted for "churning-out" this article and its' resource list. And, as in the prior month's article, Brian Cahill is also congratulated for his contributions to this article. He typed, edited and submitted it to the Chapter Newsletter. Thanks to both you guys!

Item:	Source:	Price:	
Blower/Fan Dayton 4c445	Grainger	\$100.35	
GE Britestik	Home Depot	11.97	
Melamine Particle Board (23 3/4" x 96" x 5/8")	Home Depot	15.95	
4" Starter Collar	Home Depot	1.77	
4" Flex Duct (8')	Home Depot	8.00	
Filter Material	Home Depot	.54/ft	
Electrical Misc	McClen/Hm Dept	10.00	
Hardware cloth (1" squares or larger)	McClendons	?	
Respirator (Binks)	Sherwin Williams	39.00	

#### Sources

McClendon Hardware

TATE CICHOON TIGHT	46		
710 2nd		Renton	235-3555
10210 16th Ave		SW Seattle	762-4090
17705 130th Av	e NE	Woodinville	485-1363
111 Fryer Ave		Sumner	622-7121
Grainger			
Bothell	11805 N. Creek Parkways #104		486-4462
Fife	4606	922-2268	
Seattle 6725 Todd Blvd.			251-5030

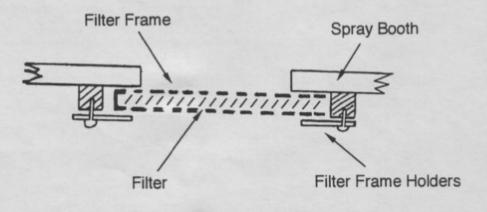


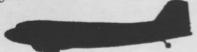
Figure 5

# DETAILS DAMNED DETAILS!

## by Jim Schubert

(Being a series of excursions into the depths of our collective obsession)

This is the first of what is intended to be a regular column feature of this newsletter. I have written this first column to get the ball rolling, but for the column to succeed as a medium for sharing ideas and information with the members it will be necessary for many members to contribute. Please see the last paragraph of this column for more in this regard.



Minicraft USA 1/144th Scale

Douglas DC-3: A really nice kit of a most significant airplane in history. It has, however, two detail problems. The first is noticeable from way across the room; the fin/rudder is too short and too rounded. So, you can't build a good looking model out-of-the-box (OOB). The second is less noticeable; the fuselage tail cone is too blunt. Both problems are easy to correct:

[please refer to figures 1 & 2 below]

Glue the new profile piece (Figure 1) in place. Let dry. Putty/sand/file to contour. Rescribe rudder line. Prime. Paint.

If You buy after-market decals for this little gem, be aware which engines

go with your decals. The kit provides engines/cowlings for the 14 cylinder Pratt & Whitney R-1830 Twin Wasp powered airplanes. If your markings require the nine cylinder Wright R-1820 Cyclone engines then you must change the engines/cowlings. See Figure 2 for the cowling changes. The easiest, most expensive, way to do this is to buy a Minicraft 1/144th B-17 and use two of the engines/cowlings, sanding off the cowl flaps, and making the changes noted above. Otherwise you could use the kit cowlings and set the engines a bit farther back in the cowlings to hide them and extend the noses of the crankcases and figure nobody will count the cylinders. I'd do the latter, being the cheapskate that I am. One other variable on DC-3s is that some operators ordered the main cabin entry door on the right rather than the, standard, left side. Always consult your references before you start work.



Revell Germany 1/144th Scale
Junkers G.38: This was a fantastic
passenger airplane with seats for two right
in the nose, in front of the pilots, behind
large wrap-around windows and seating
for six in the inboard leading edges of the

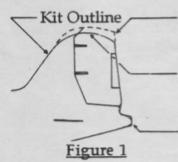
wings also behind large windows. The rest of the passengers (or "pax" as we call them in the trade") were conventionally seated in the fuselage. Revell's model is a well fitting example of what all kits should be. you can easily build it OOB into a good, accurate, miniature of its prototype. You must, however, make two changes, which are within the OOB rules. There were no windows atop the engine nacelles, so, glue the clear pieces provided in the kit in place and putty and file them to the contour of the nacelle tops and paint over them. You must also provide swastikas from your spares stock to complete the markings.

This is a very satisfying model to build quickly OOB as a break from AMS (Advanced Modellers' Syndrome) induced stress.



Tamiya 1/72nd and 1/48th Scale Aichi M6A1 Seiran/M6A1-K Nanzan: Shortly after the 1997 IPMS-USA National Convention in Columbus Tamiya released kits of the Aichi M6A1 Seiran, the submarine launched "Panama canal Bomber" two place, single engine, twinfloat, monoplane in both 1/48th and 1/ 72nd scales; the first time they have done this. Those who model in 72nd hope this portends that Tamiya will do the same with all of their future releases and perhaps even go back and do some of their recent 48ths in 72nd. Both of these new kits are typical of current Tamiya quality, which is to say they are great. The 48th version has much more cockpit detail than

(Cont'd on next page)



Trace addition onto .010" styrene.

File a slight flat atop fin/rudder to receive new profile piece.

-File to shape shown. Full Size for 1/144thScale

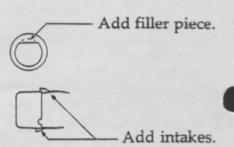


Figure 2

Delete oil cool

the 72nd but, like the 72nd, does not offer the option of open cockpit hoods to reveal that interior detail. Shame on you Tamiya! Refer to the recent releases of Accurate Miniatures, Revell/Monogram and to other recent Tamiya releases to see how this ought to be done. The 48th version also offers the complex flaps/dive brakes in several pieces for optional positionings. The kits in both scales are, in full scale dimensions, identical; obviously made from the same masters. The Tamiya representative at the National Convention said that the landplane trainer version of the Seiran, the Nanzan, would soon follow; I assume in both scales.

In-depth research by some Seattle members raised serious doubt about the dimensional accuracy of the models. The principal reference on this, somewhat obscure, airplane is the old (1975), but very good, monograph written by Bob Mikesh. The 72nd scale drawings therein show a fuselage about a scale 19" longer than Tamiya's.

When advised of this, I did some research of my own. A check of the dimensions given in the specifications of each available reference resulted in the following table:

38' 6"

Source	Span	Length
Tamiya Kit:	40'	35'
MPM Kit:	40' 6"	38'
Reference A:	40' 2 3/4'	38' 2 1/4"
Reference B:	40' 2 1/8"	34' 10 3/4"
Reference C:	40' 2 3/4"	38' 2 1/4"
Reference D:	40' 2 1/8"	38' 2 1/4"
Ref. E; Specifica	tion:	
	40' 2 3/4"	38' 2 1/4"

Ref. E; Drawing: 40'3"

The differences in the span are acceptable for modeling purposes; the differences in length are not, spanning a range of 3' 9" from the longest to the shortest.

That exercise was not conclusive of anything. The only thing I learned from it was that the MPM Seiran/Nanzan kits were clearly based on the drawings in the Mikesh monograph. I still did not know which of the several lengths was correct.

The solution to my problem was found on pages 7 and 9 of Mikesh's monograph, which provided eye-level, straight side-view photos of the two airplanes. I enlarged each photo so that the spinner back plate-to-rudder trailing edge distance was 5 9/32", which is the distance between these two points on the 72nd Tamiya fuselage. The Tamiya fuselage half superimposed perfectly, both proportionally and dimensionally, upon the enlarged photos. Conclusion: The Tamiya 48th and 72nd kits are correct; the drawings in the Monogram monograph show the fuselage longer than it should be. I have it as hearsay that Tamiya contributed to the cost of the restoration of the NASM's Seiran, which is currently in process at Silver Hill. This, one presumes, gave them access to thoroughly measure and photograph the sole survivor to ensure the accuracy of their new kits.

#### REFERENCES:

A. War Planes of the Second World War - Floatplanes - Vol. 6: William Green, Doubleday, New York, 1962.

B. Aireview's General View of Japanese Military Aircraft in the Pacific War: Kantosha, Tokyo, 1949.

C. Japanese Aircraft of the Pacific War: R. J. Francillon, Putnam, London, 1970. ISBN 370 00033-1.

D. Pictorial History - Japanese Navy Aircraft: Koku-Fan staff, Bunrin-Do. Tokyo, 1970.

E. Close-Up 13, Aichi M6A1 Seiran - Japan's Submarine Launched Panama Canal Bomber; R. C. Mikesh, Monogram Aviation Publications, Boyleston, Mass., 1975, ISBN 0-914144-13-8.



Fingers: Do your fingers dry and crack, especially in the winter interfering with your model making? Well, step right up folks, I've some snake oil just for you. This stuff really seems to work. I've used it for about a month now and the cracks in both my thumbs and index fingers have

closed up and the scaling and exfoliation of skin along the finger print whorls has stopped. This miraculous ointment goes by the generic names of - Brace Yourself -Udder Balm, Udder Cream and Bag Balm. It is intended for use, in vast quantities, on cows' udders to keep them soft and pliable to increase milk production. Years ago - probably in the middle ages - silk workers discovered it kept their fingers soft and smooth preventing snagging of the silk. My dear wife, Razon, who is a keen needle-crafter and fabric-artist bought a small jar of this stuff for me in a sewing shop; it's also available in most drugstores. It know it sounds crazy, but it appears to work. It's udderly wonderful.



Member Bill Johnson SHIPS: is in discussions with Loren Perry, owner of Gold Medal Models, to make a presentation at an IPMS-Seattle meeting early in 1998 on ship model building and (naturally) the use of photo-etched brass details. Some of Loren's outstanding ships were on display at the National convention this year and others are currently on display at Galaxy Hobbies at Aurora and 196th Street S.W. in Lynnwood. With luck Bill will be able to persuade Loren to display his models at our Spring Show March 14, 1998. Loren's ship model work is truly inspiring.

Write! This column is the kickoff for what it is hoped will become a mass participation exercise for IPMS-Seattle members. I've enough subjects to do another one, but to succeed this column must be participatory. So, if you will write a sentence, a paragraph or a page, on something you want to share - a technique, an idea, a discovery, a news item, something you've learned, an epiphany, a kit review, a philosophical point, a question, an offer, whatever; write it down quickly before the impulse to do a good deed vanishes in the haze of day-today life, and get it to me - it can be participatory. (Cont'd on next page)

I'll type your contribution, along with all the others from the membership, put it on a disk and give it to our Editor who can then use it like a string of sausages - cutting off each month what's needed to fill the Newsletter. If you're not confident about your writing, don't worry, I used to be an editor and technical illustrator in my early days. Speaking of illustration; if you have an idea for a heading graphic, such as those used above, give that to me too; even in rough form. Similarly if your writing needs illustrating, as in the DC-3 bit above, tell me/show me what you want and I'll take care of that too. We simply cannot continue to have a worthwhile Newsletter if Bob, Terry and Norm are the only members making it happen.

(Cont'd from page 10)

pool, R/C helicopter flight area. slot car track and model railroad layouts, it was large. The "make and take" areas were packed with uniformed Boy Scouts by the troop, happily putting together donated kits to take home. Those plastic bags from several booths were needed to haul home all the brochures available.

The following is just a sample of the booths manned by representatives, knowledgeable and quite willing to discuss and demonstrate their wares:

Verlinden, Tamiya, Accurate Miniatures, Squadron Products, Ambroid, Model Rectifier Corp., Bachmann, Grandt Line Products, Revell-Monogram, Kalmbach Publishing, Carl Goldberg Models, Aristocraft/Polk, Life-Like Products, Woodland Scenics, Air Age Publishing, Eduard Precision Parts. Ertl Co., Glenco Models, Marklin Inc., Model Craft Canada, OK Engines, Paasche Airbrush Co., Paper Models Int'l, Squadron/Signal Publications, and many others.

HobbyTown USA ran a modelers contest of 50 or so models, but, most of the built up models were at suppliers booths. The built ups ranged from tiny military miniatures to huge R/C flight craft.

It was all rather overwhelming. While comparable to the Model Engineers Show in London, but without all the class competitions, and it is so much closer.

Ned Shaw IPMS # 1798

# Kit Reviews:

# "The Brian Report:"

by Brian Mulron In response to your request for kit reviews; here is the Brian report:

Fujimi: 1/72 Seiran - Boring, however everything fits

MPM: 1/72 Bf109VI - Another Messerschmitt, yawn Replica: 1/72 Loire Nieuport 411 -

excellent

Revell: 1/72 FW190 - excellent, put the yellow spiral on the black spinner; (reference: Chausseurs DeNuit Allemands DeLa Derniere Guerre)

1/72 Fokker TV - not too shabby, Usk: however there are a few glitches:

- (1) When ordering one ask for sufficient decals to do both sides of each rudder if you are doing the orange markings.
- (2) Replace all the machine guns (one each for belly, tail, waist);
- (3) Replace nose glazing and cannon supports with Evergreen 25 thousands rod;
- (4) Obtain a copy of Air International Volume 31, No. 5 for reference as this will give you a clue as to where the 27 parts not mentioned or shown in the instructions go. Of course, a really keen modeler will be able to tell the wheels go on the bottom but he will still need the reference for the struts, shocks, etc.
- (5) Both props should be either right or left hand thread, not both as supplied in the kit. See ref. B (above) for whichever aircraft you are modelling and to ascertain if prop tip stripes are used.
- (6) I used Pactra French Dark Green IF29 (which is actually bright green), Pactra Flat Roof Brown and Floquil Italian Sand.

Reference: A. Fokker - Aircraft

Builders to the World, Postma; and B. Fokker T-Ven T-IX, DeTweemotorige Bommenwerpers van Fokker, Hoofman.

(7) Do not weather the aircraft as they had a rather truncated career.

End of the "Brian Report."

# Product Review: Pro Modeler Paint Flat Gull Gray, #88-0033

First of all, let me say that I don't normally use acrylic paints. I haven't been overly satisfied with any of the brands that I've tried. After trying this sample, I think I'll continue to use solvent-based paints.

I first tried the sample using my airbrush. I mixed the paint with water, alcohol, both of these mixed together, and several different brands of acrylic thinner, I tried several mix ratios and it seemed that a 50/50 mix was best for coverage and sprayability. A 60(paint)/40(thinner) mix had a tendency to accumulate at the tip of the brush, while a 40/60 was too thin and ran readily.

I wasn't pleased with the color which appeared as the paint dried. It took on a tint similar to heavy accumulations of cigarette smoke that's gotten wet (orangebrown). If the paint was applied in several very thin coats, this effect was minimized. If the coat was applied to give a one-coat coverage, the tint was very visible.

The paint took about a day and a half to dry where several light coats were applied and still seems tacky where the heavier coats were put down. This is altogether 'way too long for a flat color.

On the other hand, I also tried using the paint with a brush and had excellent results. I usually apply paint with a brush overlarge areas in several very thin coats It took three coats to get complete coverage. I mixed the final coat with about 10-20% water to help eliminate

brush marks. Each coat was dry to the touch and ready to re-coat within an hour.; this is normal for the methods I use. I also painted some spare landing gear and other small parts—the small parts I try to cover with one coat. The paint covered very well and was dry to the touch within two hours. The color also appeared to be dead-on.

I can readily recommend this paint for use with a brush, but would hesitate to recommend it for use in an airbrush. From what I've heard of earlier versions, I think Monogram is on the right track, but still needs to do a little work. Thanks for the opportunity to try the sample.

Jay Carlisle

[reprinted from the Lakes Region Scale Modelers Newsletter, October, 1997 issue]

## Modeler's Notes:

# DECAL SILVERING by Hank Borger

In last month's [column), I mentioned very briefly a new technique that I'm practicing on current models to combat decal "silvering". I use the term "practice" because that's how I regard the hobby of scale modeling. Like everything in life, you're constantly learning, and hopefully moving forward in your skills and knowledge. When you think you know everything you know nothing at all. That bit of wisdom was passed on to me by my first Journeyman in the painting/ decorating trade 28 years ago. He was 63 years old then, and said he learned something new every day.

What I have learned recently has

My personal aggravation is decal silvering under small and tiny decals, such as maintenance stencil decals on aircraft. I've modeled since 1948 as a hobbyist, as a professional, and as a competitor, but my Waterloo has always been these small decals. I've done the gloss bit, the set and sol routine, and the white glue trick. I've called the Exorcist, and talked to a tree. Nothing helped to my satisfaction. Everything silvered.

Just before I did a Dauntless and Hawker Hunter (both with a million stencils) I caught a blurb about Kleer. Kleer is the British equivalent to our Future Acrylic Floor Finish.

"My established current routine to model finishing is to airbrush an acrylic, airbrush the insignias and larger decorations in acrylic, pencil" in the panel lines, then gloss everything to death with 5 coats of Future. Then I start to shake, curse, and threaten those 6i @#\$%\* little decals into place, after which I let them dry, pray, and dull-coat spray everything back to scale flat. It may not happen right away, but I know something's going to silver eventually.

I haven't changed the routine much, but now I put a small dab of Future under each decal, pat it down a bit with a dampened cloth, which I'm finding may not be necessary, then put a dab on top with my small brush to equal surrounding texture, let dry, and overcoat with my dullcoat.

Guess what? It's workingggggggg!
I've since moved on to the larger
decals and am having good results so far.
On the big decals it helps to thin the
Future with a little water. You must move
fast, however, and gain experience with
this technique, as that dab of Future will
soften and dissolve the original Future
gloss coat. Then too, some decals may
react badly to this technique. I'm waiting
for the "other foot to come down", but as
yet everything is cool.

# Home Made Decals by Steven Brooks

Well, I finally got the decals made. I thought I'd let everyone in on my experiences.

I read about making decals with clear decal paper and copiers. So, I decided to try it with my laser printer. What really got me started is the release of a font for the Air Force in True Type format. This font is also available for you Mac users. While looking for all the stuff to make this project successful, I found that Walthers make a copier/laser safe decal paper, so I ordered some.

I had a weekend project in progress so this would become the test site for home made decals. This kit is the Star Wars AT-AT. I thought it would look better with some decals.

The first step is to decide on what you want to print. I us MS Publisher to print the decals. I set up one page with five guide lines from left to right and six from top to bottom. This allows me to make multiple passes on one sheet of decal paper by working in one grid at a time and not waste the decal paper. I work from the bottom grids to the top grids. This allows the paper to move through the printer without worrying about the set up. Next put your graphics in an unused grid and print on plain paper. Check for size and position on the decal paper. When it's right print onto the decal paper. If your printer has a flat path use that method, I do.

The second step is to apply the decals to the model. I cut the decals out as close to the graphic as possible, dipped in water and set on the bench to soak. The kit had been prepared with a gloss coat of gull gray but and clear coat should work. The area for the decal was wetted with

tried Micro set with good results and Solvoset with better results. There was no major wrinkles, the ink did not run, and dried smooth.

The final step is the clear overcoat. I used future for the first coat. The coverage was not even. It seems that the ink repelled the future and left a blotchy appearance. I next tried Testors Dulcoat. The results were better but still not perfect. I expect the second coat will take care of the problem.

Walthers decal paper comes in two

sizes, 8.5x11 (\$6.38) and 5x8 (\$3.18) each package has four sheets.

I used a LaserJet 4p to print my decals so test your own decals first.

(Cont'd from page 5)

Incendiary symbol -



Smoke symbol -



Gas bombs are GRAY overall with a RED nose band. It is supposed that the different color bands around the body indicate the type of gas filler.

Small hand thrown parachute flares are BLUE overall. These may be found in racks mounted inside the cockpits of various Japanese planes. Other parachute flares are either painted BLACK or DULL RED overall.

NOTE: The bands mentioned above are approximately 1" wide.



### Official Seattle Chapter Newsletter Notices and Notes:

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.

As you will also notice (below) it is also again dues renewal time. Along with your 1998 dues, it is important to both you and the entire chapter that you provide us with your contact information, including your home telephone area code. Now that we're all advanced to the point where it requires an area code to call across town, much less to an area across the county, these new area codes are vital to having one another's phone numbers. Please provide this information as well. We do not share our member roster with anyone outside our own group and do not sell or lease it to anyone for commercial use.

## 1998 Dues Renewal Reminder:

Our friendly Treasurer, Norm, is reminding us all that one of the few things we must do is pay our annual dues, a paltry \$12.00. You may do so by either sending a check and the following information to Norm (see his address on page 2) or bring this slip and you cash/check to our December 13th or January 17th meeting. The deadline for paying 1998's membership fees is at the February 14th meeting. After this date you will receive no meeting notification, very likely be publicly ridiculed or placed in the Chapter's dunking stool.....and you won't get your very own Seattle Chapter Newsletter!

#### 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

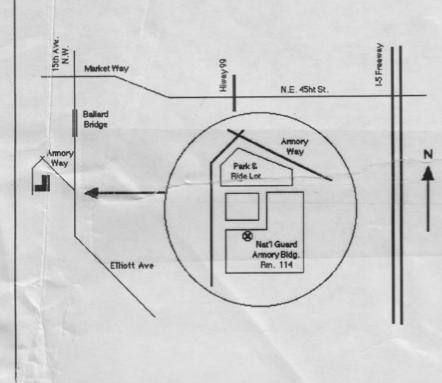
# Meeting Reminder:

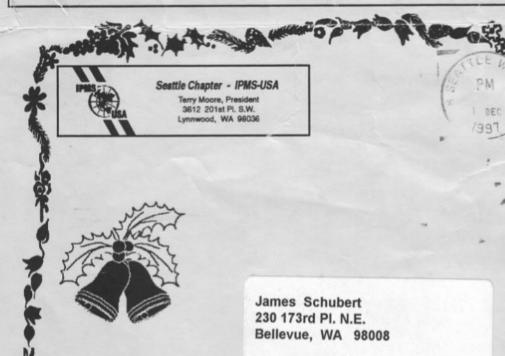
# Saturday, December 13, 1997 at 10:00am

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 Sheiter). 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.





Next Mtg: Dec. 13th