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Newsletter of the Austin Scale Modelers Society

March 2008

SPRUUE EXAMINER



White Lightnin' Building the 1/32nd Special Hobby X-15A-2

by
Phil "Bondo" Brandt
IPMS #14091

Background

The X-15 is unarguably the most successful high speed aircraft research program ever conducted in the U.S. These rocket-powered designs by North American Aircraft Corporation flew an aggregate 199 sorties between 1959 and 1968.

Of the three X-15s built, the definitive X-15A-2 version (tail number 66671) in 1967 set an unofficial world speed record of Mach 6.70, a record that still stands today. Piloted by Pete Knight, the white ablative-coated airframe sustained burn-through heat damage to the ventral fin and dummy scramjet. 66671 never flew again. It is currently on display in its original black Inconel finish at the USAF Museum in Dayton, Ohio.

Bondo Industries always favors the definitive version of any airplane and has already completed both black and white schemes on resin 1/48 Collect-Aire X-15A-2 kits. Special Hobby's release of a big X-15 offered the opportunity to do even more detailing.

The Kit

At the Anaheim Nationals this past summer, the Acquisitions Department of Bondo Industries was most fortunate to score the first two 1/32 Special Hobby X-15 kits sold in the U.S.A. That said, this curmudgeon was more than a little disappointed to discover that the kit, although meant to represent the elongated X-15A-2, didn't include the distinctive external tanks used only on this version, or the dummy scramjet mounted on the ventral fin. Further, no decals for the white ablative-coated airframe were included (although said extra decals were in the 1/48th release).

When I queried George, the genial Czech MPM honcho, as to whether a follow-on version was in the works, he just smiled enigmatically.

(continued on page 4)

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These are some of the organizations and individuals which help make Austin Scale Modelers Society possible:

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2008 Show Schedule

| | |
|---|------------------------|
| IPMS/Flying Tigers (New Orleans), 15 th Annual Contest, Kenner, LA | March 15 th |
| IPMS/MCMA, Showdown 2008, Irving, TX | March 22 nd |
| IPMS/Tulsa, 21 st Annual Open Contest, Tulsa, OK | March 29 th |
| IPMS/Houston, Modelmania 2008, Stafford, TX | April 5 th |
| IPMS/Baton Rouge, Cajun Modelfest XXIII, Baton Rouge, LA | April 12 th |
| IPMS/NCT, ScaleFest 2008, Grapevine, TX | May 31 st |

Editor's Notes...

Like groundhogs on ESW (Early Spring Warning) recce missions, we modelers all came out of hibernation last month to attend Alamo Squadron's Modelfiesta in San Antonio. It was a good show, and there were many excellent works (see pictures on page 8) by some of the best modelers in our region and Mexico. The judging of the contest took longer than usual; awards ceremony did not finish till almost 7pm! After a bit of shopping and sniffing of trophy air, we definitely saw the presence of the glue shadow. So we all went back to our benches for another six more weeks of modeling...

Congratulation is in order for our new veep **Tim Robb**. Tim will finish off the term left by **David Edgerly** who resigned due to his work schedule conflict.

It looks like **Phil "Bondo" Brandt** is venturing into Ion's big scale domain lately. He's back this month with his impressive 1/32nd X-15 on the cover. I also have the privilege to present **Mike Starmer** and **Mike Cooper's** definitive work on WWII British vehicle camouflage. Armor fans will rejoice for this latest edition and the updates on the color mixes. We have our annual double feature in the KTFM column early this year: ASMS party central host **Mike Kachoris** and his son **Jeffrey**, who has an unusual recommendation for dog owners who like to build models.

This month we meet on **March 11th** at the **Austin History Center** (810 Guadalupe) for the last time, and in April we'll be back at the Yarborough Branch Library again. The meeting starts at 7:00pm, and the program is our first **Quarterly Contest**.

Eric

ASMS Officers for 2008

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Austin Scale Modelers Society (ASMS) is affiliated with the International Plastic Modeler's Society (IPMS) as the Republic of Texas Chapter. ASMS meets the second Tuesday of each month except December. Dues for full membership are \$20 yearly. Subscription to the newsletter *Sprue Examiner* is \$15 yearly. The views expressed in this newsletter are those of the authors. ASMS does not endorse the contents of any article.

Kenny's Korner

(until I can think of something better)

Whooweeee, what a month! For those who have not heard we got a few things settled last month. Tim Robb is once again our Vice-President/Program Coordinator. My condolences, congratulations (yeah, that's the ticket) to Tim! We also decided that the VP would be responsible for the program and not a random drawing of names from a hat. This does not mean that Tim won't ask you for help, so volunteer and he won't have to come hunt you down.

And finally, we will be meeting at the Yarborough library in April. March will be our last meeting at the History Center downtown. March will also be 2008's first quarterly contest, so bring your work.

In Kathy's and my personal life, we had a frightening medical emergency on the morning of San Antonio's Modelfiesta. Kathy had a seizure and ended up in the intensive care unit in Cedar Park. She is fine now, but really had my heart racing. This has put me behind in my writing, emailing and phone calling duties, but I'm slowly catching up.

Recently I received an email from our Japanese correspondent. He informed me of his new part-time job and that he had completed 54 models last year (for those who need a calculator like me, that's over one per week!), and the pictures he sent were of quality work. I'm still hanging my head in shame. However, the world is a small place when you are staring at your belly button in self pity. I choose to try and improve my record (really easy to do if I would just finish one!) Will you do the same?

In any case, bring what you've got. Show us what you are working on. Let us encourage and spur you on toward great model building. You encourage and spur us on toward great model building. Let us inspire one another. Now get out there and build something! 

Kenny



Dogfight anyone? (Photo sent to us by Tim Robb)

Promoting Our Hobby

by

Tim Robb, IPMS #34705

Hi everybody. Did you ever think about your being an ambassador for our hobby? Well you are. All of us who love this hobby are!

What made me start thinking about this are the discussions we have at almost every club meeting about our annual show/contest. And while we are a not-for-profit group without any goal of making money on the show, we also cannot continue having the show every year if we lose big money on it. So our show related discussions usually center on expense control. All that is good, and sound business practice dictates we do that.

But there is also the other side of the equation — the growth of the participation level side. That is where all of us are ambassadors for the hobby, both individually and collectively (yes Bondo, you are part of the collective).

So I started thinking about things we have done in the past and what we can do now. Here are what I came up with:

1. Give model kits for birthday presents — especially to non-modelers. Remember when you were a kid and a model was always a great gift? It still is.
2. Then invite the poor unsuspecting devils you gave the model kits to over to your house for a group build night. Viola, instant scale modeling 101 right at your house with you as the leader. This is fun and that is what modeling should be!
3. Scale Modeling 101 Class. Speaking of, let's advertise this regularly through King's Hobby and hold class there too.
4. Public Displays. Let's put displays in public wherever and whenever we can and leave our phone number. This is trolling for new members.
5. Live Builds. Let's set up live builds in shopping malls or at air shows whenever we can. This puts the hobby right in front of folks, and lets us talk about it with whoever wanders by. This is a fun way to troll for modelers.
6. Sponsor model contests at local hobby shops, like Hobby Lobby. We can promote them, judge them, and be ambassadors for IPMS/USA and ASMS in the process.

Please give this some thought and bring your ideas to our meetings. Let's grow the hobby by sharing the fun of modeling. Go build a model, and drag somebody with you. 

Tim

(White Lightning' continued)

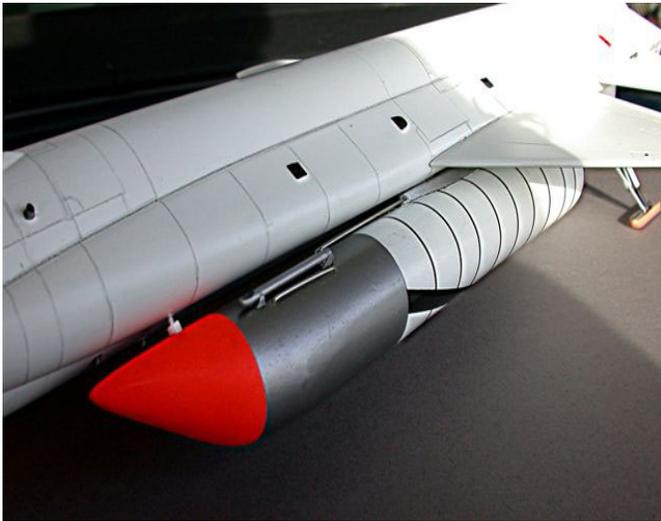
I'm guessing that Special Hobby will do a 1/32nd follow-on with added detail, just as they did with the 1/48th kit. Not wanting to wait that long, I took the bus to Scratchbuild City, determined to do an accurate portrayal of the white record setter.

The Build

Because I'm sure a "tanked" version will be released after the first run is sold out, and assuming most of our ASMS brethren would prefer to skip the practice-bleeding scratchbuild drill and wait for said follow-on kit, I'm going to skip construction pix.

Tanks

The big externals are the most distinctive feature of the longer fuselage bird, the lengthening of which coincided with a factory rebuild following serious structural failure — the spine broke during a heavyweight emergency landing by famed test pilot Scott Crossfield in 1959.



The basis for the scratchbuilt tanks was 3/4" I.D. PVC pipe from Home Depot. The outside diameter fell somewhat short of what was deemed accurate, so multiple layers of plastic sheet were laminated around the pipe. While this procedure worked, it required many iterations of Blue Acryl, wet sanding and lacquer priming.

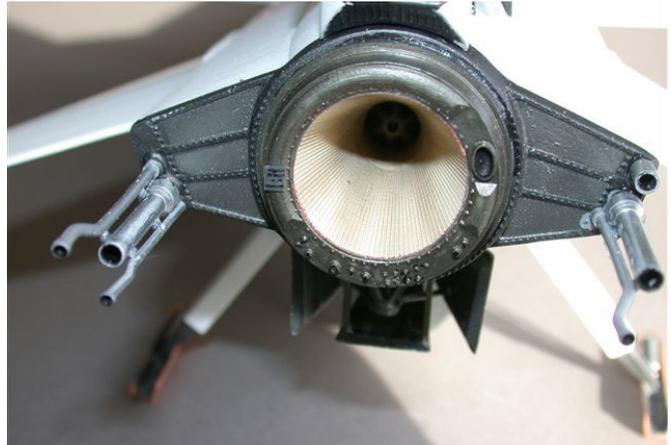
The hemispherical aft end caps were fashioned from PVC pipe caps. Asymmetrical tank front sections (they contain recovery parachutes in the real deal) were cast in resin from a carved basswood master. I have taken many close-up pictures of the restored-to-black X-15A-2 at Dayton, and they've been invaluable for detailing the tanks, especially the lengthwise tubing and other plumbing apparatus.



Very thin stainless tubing (from Kalmbach, the model railroad folks) was bent and CA'ed to the tanks after painting.

Scramjet

The last flights of the A-2 bird carried dummy scramjet shapes, mounted to a modified ventral fin, to investigate airflow and heating characteristics that would be encountered if and when envisioned scramjet-powered X-15s became a reality. Various components from the Bondo Industries Reclamation Archives were kitbashed to achieve the requisite shapes. The Special Hobby ventral fin was shortened in length and multiple sensor tubes added per picture.



Cockpit

Although Special Hobby provides nice instrument panel representation through PE and film backing, the rest of the cockpit is too plain if the canopy is displayed in open configuration. Two types of canopy are included, one of clear cast resin and a vacuformed one. An apologetic note accompanied the kit, saying that in the future an injected clear canopy would be furnished. Even though the windows of the resin version are cloudy, I chose it because it's more substantial (read thicker) and therefore could better withstand the many modifications that would soon occur.



Pictures of the 1:1 bird's opened canopy reveal that it's a fairly thick assembly, so I laminated an extra layer of plastic sheet to the inside. This inside layer also provides a proper base to which I added scratchbuilt details and piping. Because of the cloudy

resin windows, I kept the "eyelids" on the left side window closed, as provided in the kit's resin components; that cut the cloudy problem by 50%!

The seat is also somewhat plain, and the provided PE belts and harnesses are much too narrow, IMO more like "spaghetti straps." I substituted the wider color-etch belts and leg restraints (in the RF-4C, we called 'em "garters") from the Eduard 1/32nd F-105 set. Seat stencils were done on a computer and laser-printed on decal paper.

Side-wall detailing, T-handles added to the main instrument panel and a scratchbuilt equipment container between the seat back and bulkhead completed this portion of the project.

Skid Struts / Nose Gear

The X-15A-2 was never fitted with the dummy scramjet while the airframe was on its yellow transport dolly; ground clearance was simply too insufficient. Although the scramjet was mounted after the airframe had been hung on the B-52 launch pylon, I really didn't feel like building a 1/32nd B-52 wing section-cum-launch-pylon, so artistic liberty was taken to pose the X-15 airframe and attached scramjet in a landing configuration, that is, with deployed skids/struts. The struts had to be lengthened 1/2" to achieve the proper ground clearance. The extra skids furnished for the in-flight configuration provided the additional lengths of strut.



The Special Hobby mounting scheme of the struts to the fuselage is seriously inadequate (a tiny plastic pit inserted into a tiny depression in the fuselage), especially with the added weight of the external tanks, so brass wire was routed through the fuselage and into predrilled 1/4"-deep holes in the strut mounts. After gluing with 5-minute epoxy, the whole assembly became much stronger. Retraction and shock absorbing cylinders in the struts/skids were made from brass tubing because the resin items in the kit were too delicate IMO.



The kit's nose gear strut has essentially no detailing; not even the oleo scissors are included, which is hard to believe. I scratchbuilt the scissors assembly and lengthened the strut 1/4" to partially alleviate the severe nosedown fuselage attitude.

Per in-flight pictures of the bird under the launch pylon just prior to the release for the record attempt, the model's skids were finished in the pink ablative color sans the white outer layer.

Miscellaneous Details

For the record flight some types of equipment /sensors were mounted on the corrugated aft face of the vertical fin. I was unable to find head-on, close-up pictures of the equipment, so I simulated them with a general outline of the ones pictured in side-views. Per previous OOB kit reviews, the stabilator tips were lengthened. A small pressure measurement "rake" was fashioned and added to the top front of the vertical fin.



Painting

A considerable advantage in doing the ablative-coated record holder is that only one main color is involved. And, wonder of wonders, Tamiya makes its outstanding spraycan lacquer primer in white. This stuff is so fine-grained that it dries not flat, but semi-gloss. Perfect for appearance and decaling! Plus, it's completely compatible with later detail additions of Alclad and Testors Metallizer.

After appropriate applications of Blue Acryl gray primer and wet sanding, the airframe received three white coats overall. The black Inconel airframe areas that are not coated with ablative because they're out of the punishing airflow and heat received airbrushed Testors Gunmetal. Testors Metallizers are fine if not masked over and if used as the topcoat.

The external tanks were done in Tamiya black and white lacquer primer and overlaid with Alclad as necessary. Fluorescent red is also from ze ol' Tamiya spraycan.



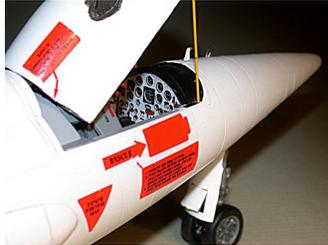
Panel Emphasis

At a distance, the blinding white ablative coating appears pristine, but close-up pictures reveal that it's covered all over

with dark panel lines, many of which are not sharply executed. In the real thing this is because many black Inconel panel seams were masked prior to application of the pink underlayer of ablative. When the seams were unmasked and a thinner white overcoat applied to the pink, the black panel lines showed through distinctly, but not necessarily sharply. After the record-setting flight, the panel lines became fairly "messy." The model's panel seams were drawn in with light gray colored pencil.

Decals

Practical considerations of the heat and vaporization of the ablative that would be generated at Mach 6+ dictated minimal stencils as opposed to the Inconel black versions. Only rescue stencils, ejection symbols and safety markings on the aft jettison/vent plumbing were used. I scratchbuilt the stencil backgrounds by spraying fluorescent red on white decal paper. Stenciling was done by reading the fine print on the kit decals (through a magnifying glass) and retyping them on the computer in very small font. Clear decal paper through a B&W laser printer, and *voila!*



Conclusion



The X-15 is one of this senior modeler's favorite aircraft, made more so on that Fall day in 1969 when it was loaded into our great silver C-133A at Edwards and carried by us to Dayton. ✈️

"Bondo" Phil



Upcoming In-Store Clinics

- March 8 Sat 2:00pm** Diorama/Figure Bases w/ **Bob Bethea**
- March 15 Sat 2:00pm** Friulmodel Armor Track Assembly and Painting with **Jorge Aduna**
- March 22 Sat 11:00am** Alcad Natural Metal Finishes and Effects with **Bob King**
- March 29 Sat 11:00am** Weathering w/ Paint Filters & Oil Dots w/ **Russ Holm**

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1960 Pontiac Bonneville Coupe

Part II

(Continued from February)

by

Peter Colburn

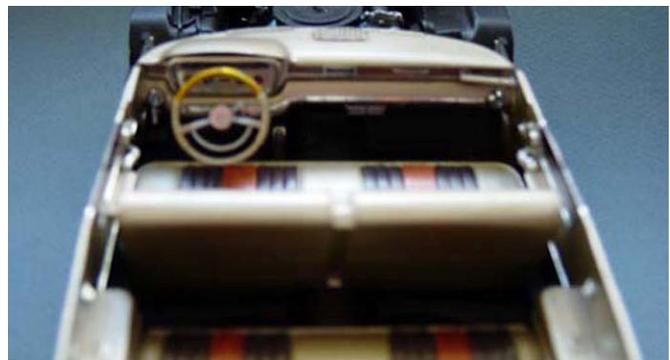
The kit's little passenger grab handle can't be installed onto the dash and right door panel without carving away a bit of the panel and redrilling the dash. Not hard to fix, but another example of the uneven quality of engineering that pervades this model. More than once I wondered if anyone at Trumpeter actually built this kit!

Although the dash top has a recess for the radio speaker, no grill detail is provided by either Trumpeter or Motor Car Garage (MCG). I fixed this odd and rather visible double omission by carving and slightly reshaping a thinned Monogram '65 Impala speaker grille from the spare parts box. I also fixed a large stepped mold seam on the lower surface of the dash that required careful removal and rescribing of the cast-in pad seams and glove box door.

The under dash AC outlet panel has a large section that hangs down in the footwell, and it hides the beautiful little fresh air duct on the right kick panel. I decided to cut this extension off rather than leave it hanging out in space, even though doing so exacerbated the poor fit of the duct itself.

At first, I thought that the shifter had broken off the steering wheel in my kit. But when I prepped the wheel for paint, I realized that it was simply another odd part. The shifter on the 1960 Pontiac is a large chromed piece that reaches fairly far down the column and "spears" out toward the rim of the steering wheel. Trumpeter got the bit on the column pretty well, but the freestanding bit is way too short and poorly shaped.

The wheel itself is good, with a very thin horn ring. I added the MCG horn button after painting and polishing it. The fit to the kit column is very loose, and the column itself is too long. I cut the column down, and I used a square file to restore the notch and improve the fit a bit. Since I removed the corresponding pegs on the tie rod earlier, I also cut the lower end off the column.



Although the interior goes together pretty well, it was pretty disappointing because of the problems described above. This is an area of building I really enjoy detailing and getting it as right as possible. Trumpeter did not make it easy for me, and I never did figure out how to fix the clear amber roof-mounted courtesy lights!



Body

This is probably the best (and most visible) part of the kit. Although a little tall and hard, there were no sink marks in my example. Mold seams were easy to deal with. The only difficulty I experienced was around the various chrome roof/glass moldings and the unique taillight "jet tubes." But to be fair, similar trickiness occurs on most car bodies in this scale. No detail is molded in for some of the greenhouse chrome moldings, so they were scribed during the prep process. Using Tamiya's surfacer/primers and a bit of sanding, I was able to achieve a smooth surface.



Before I removed the molded-in scripts and emblems with my Micromark chisel, I drilled very small holes in the body to provide a key for location of the photoetch replacements. After a couple of coats of primer, I applied the Testors lacquer color and Testors Clear. This is a great paint system; the colors I've used lay down very smoothly and cure very quickly. The one piece glass is remarkable. It's thin and incredibly free of distortion, and it almost just snaps in place.

All the body side trims are finely chromed. The sprue connections are on the back side as lugs, so no damage occurs to the plated visible surfaces. I believe Tamiya or Gunze developed this technique, although I'm not sure about that. Whoever came up with it deserves many thanks from the car building community! Again, other companies please copy. But again, why aren't the fine exterior door handles, antenna, wipers and their little mounts chromed? These parts are very difficult to foil well, and painting them just doesn't look right.

Regarding the side trim, I explored using the MCG PE parts, but the kit grooves are too deep for those to look good without filling the mounting areas with styrene stock.

The body pretty much just snaps into place on the platform. With the exception of the front wheels, everything lines up well. The greenhouse appears to be a bit short, and the tulip panel at the base of the rear window is a bit long. But mostly it looks right. The upper curve of the large windshield looks spot on to me. I mounted the hood on the cast open hinges; I couldn't make the "working" kit PE hinges to work. The bumpers do have a bit of a seam on the outer corners, but I decided to leave them alone. Again, the great "rear sprue attachments" leave no visible damages to the chromed surfaces.

The excellent MCG scripts and emblems were polished and mounted with Tamiya Clear Gloss. I like using this acrylic paint as an adhesive for PE parts. It is almost as strong as Testors Lacquer, and it doesn't damage the existing paint underneath.

Conclusion

I'm really glad I finally built this kit, which I have had since it was released several years ago. I believe my skills (and patience) have improved while building it.

Many '60s American automotive subjects cry out for new tools, and Trumpeter filled the void with the releases of the Novas and the Bonneville. But as I mentioned earlier, these kits are not for the beginner. I can only recommend it to experienced car builders.

It is unfortunate that the sales of the three car kits Trumpeter made did not do well, and apparently Trumpeter will not be doing any more new subjects. If only the engineering were more consistent, this would be a spectacular series. I think Trumpeter could enjoy success with further releases if they move down-market with more competitive pricing and simplified construction.

As always, the MCG PE fret is of very high quality, and it provides a number of pieces to improve the appearance of the kit. Both Bonneville kit and the MCG fret were purchased from Skyway Model in Seattle. 

Peter



ModelFiesta 27 Highlights



Bob Bethea's latest: Dracula bust.



This "Crow Scout" by Randy Pavatte took 3rd in 54mm and smaller Historical Figure category.



Scratchbuilt Danny Phantom figure by Mike Brock.



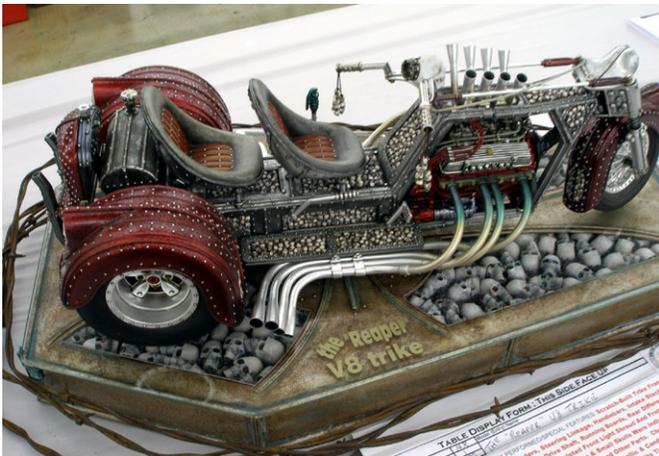
Young Kachoris' "Hell Kitchen" diorama. I think I'll call it "pizza with extra pepperoni." Job well done, Jeffrey!



Lunchtime at Live Oak: Milton, Eric, Wayne (Tim's friend from San Antonio), Tim, Bill, and Ion.



A peek into Raul Guzman, Jr.'s 1/35th shadow box "Decision of the Admiralty Board."



Jack Lira took 1st in Motorcycle category with his "trike."



Tom Moon and his enormous 1/35th railgun "Dora." It won 3rd in the Artillery category and the Best Axis Armor award.



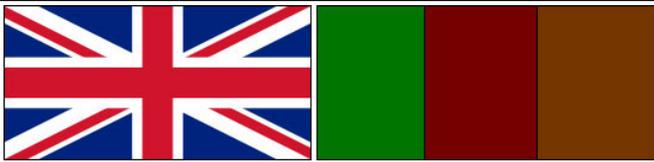
Excellent 1/72nd Westland Wyvern S.4 by Ernesto Vidal.



Best Armor award went to this T-34/85 by Dave Darren.



"USS Constellation wreck" by James Van Cleave



British Vehicle Camouflage 1939-45

Part I: Europe and Far East

by

Mike Starmer and Mike Cooper

(Ed Notes: This is the latest edition (version 6, January 2008) of Starmer and Cooper's definitive work on WWII British vehicle camouflage. To make reading a bit easier, I boldfaced all color codes, underlined scheme/pattern, and italicized general orders/instructions. I also divided the original article into two parts due to its length. The second part on Middle East camouflage will appear in next month's newsletter.)

During the Second World War British AFV and vehicle camouflage was determined by a number of Army Council Instructions (A.C.I.s) and Military Training Pamphlets (M.T.P.s), with General Orders (G.O.s) used in the Middle East. Colours used were supplied pre-mixed, matching two British Standards: BS.381C of 1930 and BS.987C of 1942, together with some non-standard paints for specific purposes.

EUROPE

Up till 1939 an overall gloss colour of Deep Bronze Green No.24 (**DBG24**) was the usual finish for all vehicles. In photographs, this colour often appears as almost black.

1939-41

Bold horizontal/diagonal patterns of two greens following M.T.P.20 of June 1939. The usual colours were a basic of Khaki Green No.3 (**G3**) and Dark Green No.4 (**G4**). Plain **G3** was an occasional alternative. Infantry tanks Matilda I and II appeared quite dark in tone, possibly **G3** and **DBG24** in some cases.

January 1941

A variation of colour took place with *A.C.I.1559*. Wood and metal bodywork was to be painted **G3** and Nobel's Dark Tarmac Green No.4 (**NDTG4**) with canvas hoods and tilts in Warm Green (**SCC7**) and Very Dark Brown (**SCC1A**) to the same pattern as M.T.P.20 thus resulting in a Green/ Black-Grey and Green/Brown scheme.

1941-42

Standard Camouflage Colour Shades (S.C.C.s) from BS.987C came into use alongside and then supplanting, the greens, but in the same M.T.P. patterns. The basic shade was **G3** or Brown (**SCC2**) with **SCC1A** over it. These browns were introduced as a result of a severe shortage of a vital chemical agent used to produce strong greens.

1942-44

M.T.P.46/4A introduced new toned schemes aimed primarily against aerial observation, usually using the BS.987C browns as laid down in *A.C.I.1160* of May 1942. The most common versions were variants of the "Foliage" pattern and the "Mickey Mouse" variant of the "Dapple" pattern. Vehicles continued to be delivered and used in plain **SCC2** following *A.C.I.1160* which gave **SCC2** as "Basic Paint." In October 1943, *A.C.I.1496* authorised Black (**SCC14**) as the main shade over **SCC2**. For illustrations of this and M.T.P.20 schemes, see <http://milfax2003.tripod.com>.

1944-45

The final change in colouring came in April 1944 when *A.C.I.533* authorised Oliver Drab (**SCC15**) for use as the new basic colour, partially to remove the need to repaint US supplied vehicles. **SCC15** was used to cover the obsolete **SCC2** in M.T.P.46/4A patterns or on its own, particularly after the abandonment of disruptive painting with *A.C.I.1100* of August 1944 except on vehicles still in **SCC2**.

In Italy, vehicles used Home Forces schemes as outlined above, but others showed the remnants of their final North African schemes or the new scheme introduced by General Order of April 1943 which used bold standard patterns of Blue-Black or Dark Olive Green over a basic colour of "Light Mud" (**LM**).

Although some were repainted, many Lend-Lease vehicles retained their base coat of US No.9 Olive Drab (**US9**).

Interiors of tanks were Silver from 1930s until about mid-war when Gloss White came into use. US supplied tanks used Gloss White. Softskin vehicles were the basic colour inside.

Softskins As details above except;

Pre-war-1941

Tilts were a light canvas colour, in 1940-41 painted over with M.T.P.20 bands in the darker colour used — usually **G3**. Tilts could also be dyed **G3** over which **G4** might be painted.

August 1941

A.C.I.1559 authorised the use of **G3** and **NDTG4** on bodywork with bituminous emulsion **SCC7** and **SCC1A** on canvas surfaces. The evidence available at present suggests that **NDTG4** is a very dark Blue-Grey.

November 1941

A.C.I.1559 was cancelled by *A.C.I.2202*. With M.T.P.20 still specified all top horizontal surfaces are to be **SCC1A** or if unavailable **SCC14**. **SCC2** to be used to restore faded tilts. Period photographs and film show this in use with M.T.P.20 bands. They also show M.T.P.46/4A pattern overlaying a sharp straight line between a dark top and medium sides.

New tilts and hoods were now manufactured from canvas dyed to a near match for **SCC2**.

August 1944

A.C.I.1100 — Tilts to be dyed **SCC15** rather than **SCC2**. Bituminous Emulsion **SCC7** may be used on tents, penthouses and hoods where **SCC15** was not available.

FAR EAST

Until 1943 vehicles appeared to conform to ME or UK standards. Late 1942 or early in 1943, Jungle Green (**SCC13**) was introduced for use in India and Burma as basic colour. There was a D.S.W. & V liaison letter of June or July 1944 in Italy, section III camouflage, regarding the discontinuation of disruptive painting. In this the subject of India and Australia using Scamic Camouflage Colour No.207 arises as used overall without disruptive paint. Due to coincidence of nomenclature, this is evidence suggesting the use of Very Dark Drab (**SCC16**) from the middle of 1944. It goes on to say that this colour is too dark for clothing and personal equipment for the war against Japan. This conclusion probably led to the introduction of **SCC19** for these purposes.

COLOUR MIXES

The mixes here are the best at the time of writing. They represent matches for the standards rather than necessarily model colours. Colours not seen/referred to are omitted. These are all based on primary research by Mike Starmer. Unless otherwise stated all paints are Humbrol.

BS.381C 1930**Deep Bronze Green No. 24 (DBG24)**

Mix: Humbrol 2 + 33 + Revell 84 in ratio 6:1:4 or Revell 65 + black in ration 10:1approx. Do not exceed this amount of black.

In use: 1934-40. The basic pre-war colour on its own has a gloss finish. Very occasionally in 1939-40 with **G3**.

Description: Very dark yellow-green, almost black green.

R.A.F. Blue-Grey No. 33

Mix: Humbrol 77 + 67 in ratio 4:1 or 112 only but satin overall.

In use: R.A.F. ground vehicle only, from 1935 till 1941 as semi-gloss finish, then Post-war.

Description: A dark blue-grey, NOT Humbrol 96 which is uniform colour!

Pale Cream No. 52

Mix: Humbrol 74 + 34 + 103 in ratio 4:3:2.

In use: Interior of office bodied vehicles like ACVs and caravans.

Description: Pale Cream describes this nicely - a light rich cream colour.

Non-BS Colours 1940-42**Khaki Green No.3/"Service Colour" (G3)**

Mix: Revell 361+360+84 in ratio 12:5:7. Not easy but the only way yet. This is matched to two 1939 original equipment samples and a replicated 1941 sample.

In use: 1938-42. New basic colour until replaced in 1942 by **SCC2**.

Used with **G4** and less often with **G5** or occasionally on its own.

Description: This is a dark rich brown yellow-green. Higher contrast with **G5** and much less so with **G4**. For dyed canvas tilts, use Revell 360+361+84 in ratio 1:1:1 or just slightly less brown.

Dark Green (G4)

Mix: Provisionally Revell 361 + black in ratio 8:1. This provides a suitable tonal appearance and hue sympathy.

In use: 1939-41. Usually as the darker shade in M.T.P.20 with **G3**.

Description: A dark yellow-green. Actual sample has yet to be examined.

Light Green (G5)

Mix: Provisionally Revell 361 is the nearest.

In use: 1939-41. Usually as the light shade in M.T.P.20 with **G3**.

Description: A light-medium grass green. A 1939 vintage vehicle has been examined which is probably in this colour. An actual undamaged sample has yet to be examined.

Nobel's Dark Tarmac Green No. 4 (NDTG4)

Mix: Provisional match Revell 78 only.

In use: *A.C.I.1559* August 1941 authorises this use as disruptive over **G3** on wood and metal bodywork only in M.T.P.20 scheme. **SCC7** and **SCC1A** to be used on canvas areas. A short term scheme.

Description: A very dark blue-grey.

Undyed canvas UK vehicles

Mix: Humbrol 84 + 90 in ration 4:1 gives a good basis.

In use: UK and with BEF France 1937-41.

Interiors, AFVs

Aluminium (silver) till mid-1940. Humbrol 11 or Revell 90, each with a touch of light grey to kill the brightness a little. From mid-1940 there was a gradual replacement with gloss white. Humbrol 130 or Revell 301 with a touch of light grey or use Humbrol 195 or Revell 371.

Interiors, Other Vehicles

Generally all other vehicles had components, cab and body interiors in the external basic colour. This also included the interior surfaces of AFV hatches and engine flaps that would be exposed when opened. The exception is when certain components were required to be in a specific other colour. The interiors of closed office body vehicles were usually, wholly or in part, gloss Pale Cream. Ambulance body interiors were gloss white but often the interior of the rear door surfaces were in the basic camouflage colour.

Gas Detector Paint

This paint was to be applied to an area on the front of the vehicle and AFVs so the driver/crew might see it immediately detect a gas attack occurred. It changed colour in the presence of Mustard Gas. This should be an area of approximately 18x18 inches not regular in shape so as to blend in with any camouflage pattern applied. This was usually applied ahead of the driver on the bonnet top or on a tray specially fitted to forward control cabs. Against regulations, some senior staff cars sometimes had this in the form of a neat circle or square. Specified on motorcycles to be as a patch on top of the headlamp. On AFVs applied to the glacis plate or the rear surface of headlamps on the cruiser tanks.

Humbrol 81 will do on model, although the sample I examined was slightly brighter.

BS.987C Camouflage Colours 1942 (amended 1944 & 1945)

Coloured paints produced in enamel for wood and metal and bituminous emulsion for canvas. Only **SCC15 Olive Drab** and **SCC16 Very Dark Drab** of this set were named, all others are colloquial terms from contemporary sources.

SCC1A (Very Dark Brown)

Mix: Revell 84 + Humbrol 33 + 113 in ratio 8:2:1. A reasonable match can be made with 170 + 33 in ratio 6:1. White Ensign Model ARB015 is a very good match.

In use: 1941-45 as disruptive in M.T.P.20 and M.T.P.46/4A schemes.

Description: The colour of plain chocolate - a warm black or deep rich brown. Medium contrast with **SCC 2**. An alternative colour was **SCC14** black.

SCC2 (Brown/Khaki Brown/Service Drab)

Mix: Revell 84 + Revell 86 in ratio 16:5. Acceptable results can be had with Humbrol 98 + 29 in ratio 5:4. White Ensign Model ARB05 is slightly light but can be used on a model as is. Dyed tilts in **SCC2** can be represented by Humbrol 29 mixed with slight touches of white, black or grey to detail variations in dye.

In use: 1941-1945 as basic colour with **SCC1A** or **SCC14**.

Description: Rich dark brown with a hint of 'khaki'.

SCC4 (Cup of Tea)

Mix: Humbrol 29 + 74 in ratio 16:1. Straight 29 may be a fair match.

In use: Possibly and only occasionally 1942 - 44 as basic shade with **SCC2** disruptive in unofficial M.T.P.46 scheme.

Description: Dull medium earth or what we would call "dark earth" but NOT the RAF colour which is lighter and more yellow.

SCC7 (Warm Green and Dark Green in Australian orders)

Mix: Humbrol 195 + 154 + 174 in ratio 7:2:1. A reasonable match is equal parts of 150 and 116.

In use: 1941-45 on canvas tilts, tents and penthouses in European schemes.

SCC13 ('Jungle Green')

Mix: Humbrol 159 + 155 + 33 in ratio 4:3:1.

In use: A basic colour only. Replaced Middle East and UK colours in India, Burma and Far East 1943-45.

Description: Very drab/muddy dark green. Darker than US Olive Drab.

SCC14 (Blue-Black or Charcoal)

Mix: Humbrol 33+67 in ratio 4:1 or straight Revell 9 Grey. White Ensign Model ARB16 a very close match.

In use: 1941-45 in M.T.P.46 and with **SCC15** in N.W. Europe.

Description: A very noticeably blue-black.

SCC15 (Olive Drab)

Mix: Humbrol 150 + 159 + 33 in ratio 5:5:2. A reasonable match is 159 + 33 in ratio 8:1. Dyed tilts can be represented by 150.

In use: Introduced April 1944 in A.C.I.533 as new basic colour with or without **SCC1A** or **SCC14** disruptive paintwork as M.T.P.46 for operations in N.W. Europe and Italy.

Description: Fresh Olive Drab, a very dark drab inclined towards Green. Unlike the US colour which it resembles when new, this

fades green. Noticeable contrast with black and less so with **SCC1A**. Definitely NOT blue-green or like any Humbrol colours.

SCC16 (Very Dark Drab)

Mix: Humbrol 155 + 66 + 33 in ratio 10:2:1. A slight lighter colour than the standard but okay on a model.

In use: Possibly introduced as early as mid-1944 for use in India-Burma, colour **SCC207** of same name mentioned in Far East documents.

Description: A dull dirty brown green, darker than **SCC13**.

US Colours

No.319 / No.9 Olive Drab

Mix: Humbrol 159 + 33 in ration 11:2 or Humbrol 155 + Revell 42 in 1 : 1 for true colour, adding more Humbrol 155 gives a good faded average. When fresh it is close to British **SCC15** olive drab.

In use: 1860-1970. But 1941-45 on Lend lease equipment on its own or in Italy with Light Mud and rarely black.

Description: Varies with manufacturer and fading. FS595A **34087** in some version is too brown and light, despite being widely cited as a match. Nearest is FS595B **33070**, a dark drab with a green hint when new, fading brown or grey in use.

Non-BS Theatre Colours

Light Mud

Mix: Humbrol 187 + 31 +34 in ratio 6:1:1. A provisional colour according to colour photographs and verbal descriptions. White Ensign Model ARB17 is very close, use as is on a model.

In use: Tunisia, Sicily and Italy 1943-45 as basic colour in disruptive patterns. Seldom if ever on its own. Sometimes used as disruptive over **G3** or **SCC 2** when units moved to Sicily from Tunisia and over US Olive Drab on some Lend Lease vehicles.

Description: Dirty sandy grey. Described by veterans as "light grey" and "dirty grey-beige."

To be continued next month. 

Mike Starmar
Mike Cooper

*(EdNotes: If you prefer working with paints other than Humbrol and Revell, there are conversion tools available on the web (e.g. www.ipmsstockholm.org/colorcharts/colorcharts.asp). These tools, however, **do not and cannot** guarantee exact matches. The margin of error will grossly increase if other colors are involved in the mixing process. IMO, they serve as a good place to start but not the one-stop solution to your quest for the perfect color. So use them with care!)*



Know Thy Fellow Members

Name

Jeffrey Kachoris.

Day job

Full time 7th grade student.

I've been building models...

For four years.

Primary modeling interest

Sci-fi and fantasy subjects.



Main reason why I build models

It's fun, and it kills time.

Other than building models, I enjoy...

Drawing and video games.

I was influenced/inspired to build models by...

My dad.

I consider myself...

A model builder.

Best excuses I told for buying yet another model kit

I haven't had the need to use one, yet. Usually my dad's my supplier when it comes to model kits. Sometimes I'll just pick one from his collection.

First model I completed

A snap-type B-25 Mitchell my dad and I put together.

Longest time I took to finish a model

I'm still working on it.

Best model I built so far

My Warhammer diorama "Monster Cave" and the King Ghildorah figure.

Worst model I ever encountered

The first one that I built.

Dumb things I have done when building a model

None. I'm perfect, so far.

Modeling experience I like to share with my peers

Don't leave your unfinished kit out on the table if you have a pet. I learned that when I found out my dog likes to munch on my models!



Name

Mike Kachoris.

Day job

Maintenance and AC mechanic.

I've been building models...

On and off since 1990.

Primary modeling interest

Sci-fi, WWII armor, 1/72nd aircraft.

Main reason why I build models

I like to see the finished product. It just brings back memories of my youth.

Other than building models, I enjoy...

Collecting stuff and staying fit.

I was influenced/inspired to build models by...

My dad. He built a lot of 1/48th scale aircraft.

My favorite "master" modeler is

Anyone who builds. e.g. Tim Vogt, Milton Bell, Bob Bethea, and Bill Johnson.

I consider myself...

A model collector.

The size of my unbuilt collection

Between 251 and 500. I stopped counting long time ago.

Best excuses I told my wife for buying yet another model kit

"It's to raise money for the club."

"It's for dad."

"Because it was on sale!"

Plan for my unbuilt collection before I die/give up this hobby

If my son Jeff doesn't want them, I guess I'll sell them.

First model I completed

Either Aurora Spiderman or the 1930s model cars I built in the early '70s.

Longest time I took to finish a model

I'm still working on it.

Best model I built so far

1/72nd DML Mi-28 Havoc and the T-6 Texan I built with Tim Robb.

Worst model I ever encountered

Too many to list.

Modeling project(s) I'm working on

ToyBiz figures, Reaper figures, and assorted aircraft that have collected an inch of dust in my collection.

Dumb things I have done when building a model

1. Glue prints on the canopy.
2. Use too much glue to attach the landing gear and watch it bend under the weight of the model.

Modeling experience I like to share with my peers

Build the model you like and enjoy building it for your pleasure. You learn from your mistakes, so don't get discouraged along the way.



ASMS Members Who Won at ModelFiesta 27

Bill Johnson won big this year with seven trophies. Among all ASMS members attended, Milton entered the most models with 12 entries. Unfortunately, he only captured three by sweeping the "Aircraft, Military - Smaller than 1/72" category.

| Name | Place [Category] | Subject |
|--|---|-----------------|
| Milton Bell | 1 st [Aircraft < 1/72] | Fw.190D |
| | 2 nd [Aircraft < 1/72] | E-2C |
| | 3 rd [Aircraft < 1/72] | P-51B |
| Bob Bethea | 1 st [Busts] | SS Officer |
| | 2 nd [Busts] | Dracula |
| | 3 rd [Fantasy Figures ≤ 54mm] | Girl on Bear |
| Phil Brandt | 3 rd [1/48 Single Eng Prop] | AJ-2P Savage |
| Eric Choy | 1 st [Aircraft Diorama] | F4F-4 diorama |
| | 2 nd [Ship ≥ 1/400] | CSS Atlanta |
| Rick Herington | 2 nd [Ship < 1/400] | Graf Spee |
| Russ Holm | 1 st [> 1/48 APC/AC/HT] | Panzerspawagen |
| | 2 nd [> 1/48 Allied to '45] | M5A1 |
| | 3 rd [> 1/48 Axis to '45] | German KV-1 |
| Bill Johnson | 1 st [> 1/48 SPG/Util Veh] | M40 |
| | 1 st [≤ 1/48 Armor Modern] | Stryker |
| | 2 nd [> 1/48 APC/AC/HT] | M2 Halftrack |
| | 2 nd [> 1/48 Softskin] | GAZ66 |
| | 2 nd [≤ 1/48 Armor Modern] | AAV7 |
| | 3 rd [≤ 1/48 Armor Modern] | M4A3E8 |
| 3 rd [> 1/48 Allied to '45] | M18 Hellcat | |
| Jack Johnston | 1 st [1/48 Single Eng Jet] | F-86L Sabredog |
| Jeffrey Kachoris | 1 st [Junior Miscellaneous] | Hell's Kitchen |
| Bob King | 2 nd [1/48 Aircraft Box Stock] | P-51 Starduster |
| Kathy Kupka | 1 st [Junior Aircraft] | Hawker Typhoon |
| | 2 nd [Junior Miscellaneous] | Dilophasaurus |
| | 3 rd [Junior Miscellaneous] | Stegosaurus |
| Sarah Kupta | 2 nd [Young Miscellaneous] | Triceratops |
| | 3 rd [Young Miscellaneous] | Velociraptor |
| Shawn Merrell | 1 st [≤ 1/48 Armor to '45] | M10 |
| | 3 rd [Armor Box Stock] | Pzkpfw I |
| Tim Robb | 1 st [Civil Aircraft] | Republic Seabee |
| | 3 rd [Design Aircraft] | Pink P-40 |



New event this year at MODELMANIA 2008 !!!



Kitbash two entirely different kits to make one bizarre model. Winner is determined by the public — the favorite model wins! Kits to be used:

Revell MIG-29 and Testors Roswell UFO.

Rules:

- Up to 10 teams/individuals can participate.
- Participant under 18 must be accompanied by a legal guardian.
- We supply the kits. Nothing else can be added except what comes with the kit, including the plastic bag or sprue.
- At least 1/3 of the other kit must be used.
- You supply the cutting, grinding, filing type hardware.
- You supply the adhesives.
- No corded power tools are allowed.
- No painting is allowed.

Kitbashing starts at 1:00 pm and ends promptly at 3:00 pm. To register, contact Show Director **Pete Fantasia (281) 992-2328**.

Note: IPMS-Houston is not responsible for any injuries incurred during this event. Please be careful with the sharp objects and adhesives you bring around yourself as well as others.



**Don't let that happen to you.
Pay your dues NOW!**

March is the deadline for your 2008 ASMS dues. To enjoy your membership rights and avoid missing out on any newsletter, bring your money to the next meeting or send a check to: **Ion Tesu, 7908 Flintstone Cove, Austin, TX 78736**.

ASMS membership dues are \$20 for individual, \$25 for your entire family, and FREE for your well-behaved pet(s)!

Old Rumors & New Kits

The biggest and hottest new kit certainly has to be the Eduard F6F Hellcat. This kit sells in the mid to upper \$30s and contains PE details and markings for several aircraft. As far as I can see, it's about the best OOB kit of the Hellcat ever produced. As usual there are some critics—"the cowling is not quite right (to their liking) and the wheels aren't right." But if you build it, not one modeler in a hundred will be able to see anything wrong. Hey, that's the nature of the hobby.

Just out is the Special Hobby Ch-37B Mojave in 1/72. This is just right for you rotor-heads out there. It's a big helo with twin turbines turning one big rotor. Special Hobby also has released a kit of the Fokker D.21/3 in Finnish markings. I understand the kit comes with skis as well as wheels. Other versions are almost a certainty. Spitfire fans will be happy to know that Academy has reissued their Mk. 14e.

Hasegawa stays in the news with more new kits. First up is a fine looking P-40E in 1/32 scale. This is surely based on their 1/48 scale kit and we can only hope that more variants will follow. This first offering comes with markings for Ed Rector's AVG aircraft and John Landers' "Texas Longhorn." This kit is expected in the second quarter of 2008.

Another unexpected kit from Hasegawa is the 1/48 J35F/J Draken, that rather unusual delta planform fighter from Sweden and made by Saab, was kitted by Lindberg back in the 70s. This is a totally new tool, of course, and is due out just any day now. It was slated for the first quarter of 2008 so be ready!

Other kits announced by Hasegawa at the Nuremberg Show include a 1/48 F-16D (block 52) in Greek Air Force markings. This is the latest configuration of the aging F-16 design and features slipper tanks and a two place cockpit as well as the fat spine full of electronics. No release date was given. Look for a re-release of the Bf-109F in an Africa scheme that may show up anytime.

Then there are a slew of 1/72 kits which include an Su-27 Flanker in "New Russian Knights" livery, an SH-60B Seahawk, an A-10A, and a combo kit containing a MiG 21F and a MiG 17PF. Again, no dates or price information available at this time.

Hasegawa isn't leaving out ship-builders. They have announced a 1/350 model of the IJN carrier Akagi ca. 1941. This is a good scale for this very interesting and historical ship. I can just see a handful of 1/350 scale Zeros, Vals, and Kates. If you don't have room, there's a 1/700 "three flight deck" version as well. Both kits are set for release in the second half of the year.

Trumpeter has released a 1/144 Tu-160 Blackjack bomber, certainly the right scale for this subject unless you have lots of room. And I don't!

Trumpeter's P-51B in the Braille scale (1/32) is still new and looks really good in the box. I hear a couple of builders have theirs ready for paint and maybe even decals!

Trumpeter does a lot of armor too and they have a set of 1/16 Soviet Tank Crew members as well as another monster model; the 1/35 Maz F37 Soviet Tank Transporter. They also have a model of Germany's E-100S heavy tank—a paper panzer that never got into production.

From Mini-Art, a Ukraine company, comes two versions of the Su76M Self Propelled Gun. It's available in either Soviet or German use and comes with crew. I've heard good things about this company's work, especially their figures.

Speaking of figures, our own Bob Bethea and former member Chris Mrosko have formed a new company to produce top grade resin pieces in 1/35, 1/16, and 1/9 scales. Their subjects so far are limited to German and American WWII figures and one recent US Army figure. Bob and Chris have hired some of the top figure sculptors to do the masters. The name of the company is New World Miniatures. You can find more information on their website at newworldminiatures.com. Look for more information in next month's newsletter.

Revell has a nice 1/144 Boeing 737 Air Berlin and, to be sure the Sci Fi fans don't get left out, they have released a Star Wars Millennium Falcon Snap-Fit kit and a Star Wars Droid Fighter Snap-Fit.

There are a number of new books on the shelves as well as kits. If you look at the price tags you may be shocked though. Just like kits, accessories, paints, etc., book prices reflect the fact that the dollar is declining in value. However there are still some good books out there and where would a scale modeler be without good reference materials?

Kagero puts out some very good books and even includes decals or masks to make the price more palatable. One of their best is *Fighters Over Japan Part I*, a smallish soft cover that contains some well done profiles of various US and Japanese single-engine fighters. Included are decals for several aircraft in 1/72, 1/48, and 1/32 scale plus three sheets of masks for Japanese markings and a P-47D canopy and a Ki-61 canopy. As I said, the extras really sweeten the pot.

A second book, *Messerschmitt Bf109G Over Germany*, is done in much the same way but the markings are limited to the Gustav. Not to leave out armor builders, they have done a similar book on the Pz. Kpfw. V Panther. Schiffer has a new publication on the 14th Fighter Group in WWII, and Mushroom has a very complete look at the Ju 87 Stuka. Mushroom books are good buys. Check 'em out.

That's all for March. Now go build a model!

Milton

Next Meeting:
March 11, 2008
at
Austin History Center
(810 Guadalupe Street)

*Austin Scale Modelers Society
Eric Choy
13213 Marro Drive
Austin, TX 78729*

