

# Seattle Chapter News



Seattle Chapter IPMS-USA  
July 1998

## PREZNOTES



YES!!! It worked! Have you ever had a project on your bench that required a different finishing technique that you have never done before? You think about it for ages (maybe starting something else in the meantime) before tackling the seemingly insurmountable problem. Then you just sit down and do it. It turns out just as your mind's eye pictured it would. And it worked the first time. "OH JOY! RAPTURE!"

You are so happy that you show it to your wife (which you have never done before). "Lookit what I just did!"

These moments certainly make this hobby more enjoyable, and it has happened to me a number of times recently. Maybe I'm getting more daring in my advancing age. Or luckier. My latest attempt at something different involves trying to obtain a natural wood finish on a boat model. The subject is the AMT reissue of their Runabout/Race Boat 3-in-1 kit. I am doing the Runabout version, and wanted to duplicate a rich mahogany finish on the deck and sides of the hull. What I did was to sand these surfaces smooth, then spray these areas with Floquil yellow. After the Floquil dried (at least 24 hours), I rubbed out the yellow to a nice gloss finish. Then I used a 1/2" soft bristle paint brush and Grumbacher Burnt Sienna [*Schumacher Burnt Senna? You mean the 1992 Belgian Grand Prix? - ED*] tube oil paint on the deck and sides. The finish should be somewhat streaky, with a hint of the yellow showing through. Don't build up too thick of a coat of oil paint. I applied the paint in the fore and aft direction, although you can go diagonally or in other directions. After the oil paint has dried, usually a day or two, apply a gloss overcoat. I use Duracryl automotive lacquer, available at most auto paint supply shops. Make sure you build up a clear coat very slowly - the first layers of gloss should be misted on, so the paint will not react with the lacquer. After a number of mist coats have been applied, then you can add heavier coats.

After about six or more coats of Duracryl I used the Detail Master polishing system consisting of various grades of sanding cloth from 3,200 to 12,000 grit, resulting in a very fine polished wood hull that replicates the finish of the classic runabout. Yay, it worked!

With a variation of the undercoat, say white as opposed to yellow, and a different oil color, Burnt Umber for example, you can vary the finish to approximate any kind of wood finish you want. Just think, wood propellers, or the natural wood finish on that World War One Albatros, or a "woody" finish on that car model you are working on. The possibilities are endless.

One thing this has certainly done is expand my horizons even farther than what I have mentioned in the past. Because of some of my recent models such as the *Miss Exide*, I no longer fear modeling water. The turbine Indy Car I did has opened up a new interest in building car models, and with the success I had on the boat model, I am not worried about taking on something a bit more ambitious; the big Lindberg Chris Craft cabin cruiser that's been in my collection for years. Now all I have to worry about on that model is how to install RC gear...

See you at the meeting,

*Terry*

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This is the official publication of the Seattle Chapter, IPMS-USA. As such, it serves as the voice for our Chapter, and depends largely upon the generous contributions of our members for articles, comments, club news, and anything else involving plastic scale modeling and associated subjects. Our meetings are generally held each month, (see below for actual meeting dates), at the Washington National Guard Armory, off 15th Ave. NW, just to the west side of Queen Anne Hill in Seattle. See the back page for a map. Our meetings begin at 10:00 AM, and usually last for two to three hours. Our meetings are very informal, and are open to any interested plastic modeler, regardless of interests. Modelers are encouraged to bring their models to the meetings. Subscriptions to the newsletter are included with the Chapter dues. Dues are \$12 a year, and may be paid to Norm Filer, our Treasurer. (See address above). We also highly recommend our members join and support IPMS-USA, the national organization. See the form below for further details. Any of the members listed above will gladly assist you with further information about the Chapter or Society.

The views and opinions expressed in this newsletter are those of the individual writers, and do not constitute the official position of the Chapter or IPMS-USA. You are encouraged to submit any material for this newsletter to the editor. He will gladly work with you and see that your material is put into print and included in the newsletter, no matter your level of writing experience or computer expertise. The newsletter is currently being edited using a PC, and PageMaker 6.5. Any Word or WordPerfect document for the PC would be suitable for publication. Articles can also be submitted via e-mail, to the editor's address above. Please call me at 425-823-4658 if you have any questions.

If you use or reprint the material contained in the newsletter, we would appreciate attribution both to the author and the source document. Our newsletter is prepared with one thing in mind; this is information for our members, and all fellow modelers, and is prepared and printed in the newsletter in order to expand the skills and knowledge of those fellow modelers.

**UPCOMING MEETING DATES**

The IPMS/Seattle 1998 meeting schedule is as follows. To avoid conflicts with previously scheduled IMPS events and National Guard activities at the Armory, please note that some of our meeting days fall on the third Saturday of the month, not the traditional second Saturday. We suggest that you keep this information in a readily accessible place. All meetings begin at 10:00 AM.

JULY 18, 1998 (3rd Saturday)

SEPTEMBER 19, 1998 (3rd Saturday)

AUGUST 15, 1998 (3rd Saturday)

**IPMS/USA NEW MEMBER APPLICATION**

IPMS No.: \_\_\_\_\_ Name: \_\_\_\_\_

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**IPMS/USA****P.O. Box: 6138****Warner Robins, GA 31095-6138**

## Building and Finishing the Accurate Miniatures 1/48th Il-2 Stormovik with Skis

By Ted Holowchuk

First, an apology for being so late with this article. Family and business responsibilities intervened.

### Now on to the Review:

At the November 1997 IPMS meeting, I purchased the brand new Accurate Miniatures Stormovik (kit #3409) on skis. I was impressed with the box art, a Stormovik in winter scheme taking off with snow being kicked up around the aircraft. I was looking forward to this kit after buying the Squadron Signal Book #155, *Il-2 Stormovik in Action*. The painting on the cover of this book (another winter camouflaged aircraft) also impressed me. I knew I would have to do this type of scheme when the time was right.

### The Time Was Right!

This kit has the distinction of being only the second kit I ever bought and started to build on the same day.

As I said, the box art was well done and attractive. Upon opening the box, I found all parts very well packaged with the clear parts protected. The decals look good and were in register. The six-page instruction booklet is well done, with logical assembly steps. Yes, I did read them, and followed them (mostly). Accurate Miniatures included a short history of the aircraft, a model paint reference chart (with FS numbers and paint manufacturer's number) and finishing ideas along with a camouflage scheme drawing.

There are 119 pieces of gray plastic and 7 clear parts. This kit includes wheels and skis. I opted for the skis, and the "wheel parts" ended up in the bulging spares box.

Looking over the parts I found them very well done. The cockpit is well detailed, but there is always room to add more if that is your desire. There will surely be after market detail sets. Panel lines and rivet detail are scribed very nicely and the elevator, flaps and rudder demarcation lines are well defined.

Reference material for this aircraft is kind of sparse, but I have listed the references that I consulted at the end of this article. If you have further information, please contact Robert Allen or myself and we can add to the reference list.

### Initial Sub-Assemblies:

Let's start to build this "beast". I decided to build the Stormovik "out of box" as an exercise in working with winter scheme techniques.

Following the instruction booklet I began with the cockpit. I prepared the parts for painting. I thinned out the sides of the seat back and seat pan to get a thinner, more delicate look. I cleaned up seam lines on the rest of the cockpit parts. I found it necessary to fill and then sand smooth a few ejection pin marks on the fuselage inner panels. I sanded the rear of the clear instrument panel until I had thinned it to about one half the original thickness and drilled out all the instrument faces. The bezels and switches are raised detail and also well done. I then painted the panel a dark gray (I never use black for these panels) and picked out the switches, lights, and dials with red, yellow, and white to add some color. At this point I lightly dry-brushed the instrument panel bezels and edges with silver. I followed this with a coat of clear gloss lacquer and when this was dry, a black oil wash was flowed around the face of the panel to accent the shadows around the instruments and pop out the switches and dials. When the wash was dry (overnight) I coated the instrument panel with a coat of Dullcote. When dry, I again, lightly dry-brushed the highlights with silver and again accentuated some of the switches and knobs with color (refer to color photos if you have any).

### Future as a Glue, Instrument Panel as Sandwich:

I tried a new trick I read about in a magazine. The instrument faces are decals, which I applied to a piece of unpainted white 10 thou plastic sheet.

When applying the decal onto the plastic, I brushed a light coat of future floor wax onto the plastic card and floated the decal onto the wet future. I absorbed the excess water and future around the edges of the decal with a paper towel set it aside to dry. It seemed to work well. When dry, I placed the plastic instrument panel over the decal to check the alignment. Perfect! I removed the panel, brushed Future floor wax over the plastic sheet and decal combination, placed the instrument panel back on top of the decal, checked for alignment of the dial faces, and let dry.

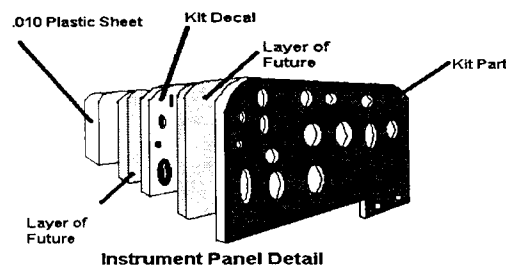


Figure 1

I sure spend a lot of time waiting for things to dry.

When Future was dry, I ran a little super glue around the outer edge of the panel, and when dry, cut the white backing plastic to conform to the shape of the instrument panel. I now applied some Micro Krystal Kleer to the dial faces to build up the "glass" over the dial faces. That took care of the instrument panel, which I put aside ready to install later.

### Cockpit:

Next, the rest of the cockpit tub parts (floor, seat, stick, etc.) and the fuselage sides (rather sparse, but OK) were painted Floquil RLM 02. The switches, boxes and lines were picked out in appropriate colors, then all parts were sprayed with a coat of clear gloss lacquer. An oil wash of burnt umber, black, and white was flowed around all detail parts and allowed to dry for a half hour or so. I then used my thumb or a clean cloth to rub across the detail and wipe off any excess wash. This

helps to add depth and dimension to these parts. When dry, I sprayed a coat of Dullcote overall. I then dry-brushed the parts with light gray and silver for highlights and chipping. After another light coat of Dullcote, I re-emphasized some of the switches and dials with the same highlight colors as before. I set these parts aside until later.

Oh yeah, the seatbelts, I did use the decal seatbelts from the kit. I applied the decal to a piece of lead foil and when dry, I cut out the belts and applied them to the seat. I helped out these belts with a little brush painting to highlight, shadow and accentuate them. At this point the seat joined the finished parts awaiting installation.

Let me add a little twist to the proceedings. I do not like to get down the construction road and have to start cleaning, painting and finishing other detail parts such as landing gear (skis in this case) weapons, bombs, pylons, etc. So in the beginning, while I am prepping and finishing the cockpit parts I am also doing the same for all those other detail parts. I painted and finished them in their appropriate colors and stored them ready to be installed during final assembly. This way the tough, time consuming detail stuff is done when the finish line is in sight. Also, I usually do not prime interior parts; wheel wells, landing gear, etc. I find most of these small detail parts do not require the prime and sand routine and all works out fine by painting the "raw" plastic.

#### Minor Glitches:

Onward, I proceeded to build per the instructions. My first minor glitch occurred at the step when fitting the air ramps (which were finished before installation) and gluing the cowl halves together. I needed three hands to hold things together. These parts needed trimming, fitting and a few choice words of encouragement. The fuselage halves were glued together and the instrument panel installed. I left the stabilizers off till the final assembly.

The lower wing/center section and cockpit parts were fitted and glued, and with a little tweaking seemed to work out OK. Fitting this assembly into the fuselage

required some pushing, shoving and cussing until it popped into place.

The nose assembly glue-up needed three hands again and a few more words of encouragement. With perseverance everything finally lined up and was glued in stages.

#### The Wings:

Now for the wings. The interior wheel wells were previously finished and so the wing halves were glued together. I had to use super glue and filler to eliminate gaps on the port upper wing root, the lower wing joint and where the rear wing and fuselage come together.

I then glued the ski fairings (with pre-finished interiors) together, then fitted and glued them to the lower wing. I used some filler and I sanded the joint between these fairings and the wing.

The air filter on the starboard leading edge is split in half down the middle. It is a bear to work around and to clean up the seam down the middle of this prominent feature. A separate add-on filter would be a much better design.

All in all the fitting of all these parts seemed a little more tedious and trying than I thought it should be. I started thinking about taking up knitting or something. However, after reading a couple of reviews and talking to a few other builders I found that I wasn't the only klutz having problems. Go slow, use care when fitting parts, do some filling and sanding and all will work out. In spite of the problems I liked the way things looked when assembled. I drilled out and finished the exhausts. The prop and spinner were also ready for installation. These parts were set aside for final assembly.

I masked the cockpit (without canopy) and gear wells using tissue paper and tape. The model was then given a couple of light coats of primer. I checked the model over, added a little filler, sanded, checked, replaced a few filled panel lines, and "chased" the panel lines over most of the model. I then re-primed the model and checked it again for filled areas and panel

lines. Now the whole aircraft was sanded with 320 and 400 grit sandpaper.

The cockpit masking was pulled off and the windscreen and rear canopy section were attached with white glue. The windscreen fit great and needed no filler. The rear of the aft canopy needed a little filler, sanding and re-scribing. The glazed areas of all three canopy sections were masked off with bare metal foil. I re-masked the cockpit opening and the canopy and I sprayed with the interior color, RLM 02. I used the painting guide instructions and painted the underside of the aircraft with Floquil "Underside Blue" (FS 35414). Using solvent based silver paint, I picked out chipped areas around panels and joints. When dry, I masked off the underside and painted the top side in the summer scheme of brown (FS 30219) and dark green (FS 34102). I used Floquil and Model Master for all painting. I added about 15% white to all colors for scale effect. I did not remove the masking from the bottom at this time.

#### That Inspirational Winter Scheme:

Now the winter scheme/weathering procedure began. Using silver paint I picked out areas around panel lines, leading edges of wings, stabilizers, etc., any place where paint would be chipped or worn off. Use care, too much is worse than not enough. We can always add more later. Next I used some Rub-N-Buff on the leading edges and wing walkways to show areas of worn paint. When done, the whole aircraft (the underside still masked) was sprayed with 2 moderate coats of clear gloss lacquer. This clear coat will act as a barrier for later weathering techniques. Now look the model over and "chase" those panel lines where needed.

Now the fun began. In order to create the paint scheme, I masked off the nose, wing roots, canopy area, and a rough oval on the tail (for the number 6) using parafilm and masking tape cut to an irregular camouflage pattern. I lifted the edges of the tape slightly to create a soft edge when sprayed the paint.

I mixed Floquil white with a few drops of grimy black to get a dirty gray white. Using this mixture I lightly sprayed uneven,

blotchy patches on all the upper surfaces. I also sprayed the flying surface actuators with a light coat of white. I had already painted these green/brown. No, they were not glued on yet, I really like subassemblies, remember? The ailerons, rudder and elevators were masked off with parafilm and the top surfaces were given another uneven, splotchy light coat of white. You should see some of the original paint scheme in places. I allowed everything dry for about 30 minutes. I then used 320 sandpaper, Scotchbrite and foam abrasive pads to lightly sand, scuff and buff away patches of white paint, revealing areas of the chipped and worn summer scheme paint below. Go slow and use good judgment in taking off the "white" paint to create your masterpiece.

Remember those gloss coats before the white paint? This gives you "OOPS" room, a cushion to remove the white and leave the green/brown. If you take off too much, you can re-spray with white and sand away again. However, as grungy as these things were, you can do just about anything and get a good effect. When the scheme met my satisfaction, I stripped away all the masking from the top and bottom surfaces, leaving the canopy, wheel wells, and cockpit opening masking in place.

#### Silver Paint and Rub-N-Buff:

I used silver paint and Rub-N-Buff to accentuate the chipped and worn areas. Take your time. Look the model over and add this effect in logical areas where chipping and wear would occur. A little "art class" advice - "If you think it needs something, but you don't know what, Do Nothing". Proceeding without a plan and reason can lead to a major mess. It must look real, like it's "been there".

The whole model was now give a couple of coats of clear gloss lacquer, to prepare it for decals. At this point I usually mask the canopy area with parafilm to prevent an excess of gloss lacquer on the canopy. I place the parafilm over the bare metal foil masking I applied earlier. This material is flexible, allowing you to mask close to the whole canopy edge, and it easy to remove. When dry, decals were applied and when these dried I covered the model with

another coat of clear gloss.

#### Wash:

When this coat was dry I applied a wash, of black, raw umber and white artist oils thinned with mineral spirits to all panel lines. After a 20 minute wait, I cleaned up the excess and slop-over using my thumb and/or a clean cloth. The excess should wipe right off the gloss lacquer. The remaining wash was allowed to dry overnight.

At this point I sprayed a few coats of gloss over the decal areas. When dry I sanded the area with 320-400 sandpaper and re-sprayed clear gloss and re-sanded again until the decals were buried in the finish with no edges showing. I sprayed a nice coat of dull coat to bring down the shine, re-scribed any panel lines needing attention and accented any lines needing color.

I try to step back and examine the model with a critical eye to determine where else I might need more worn or chipped paint. I look at areas like panels that would be removed, areas walked on (wing root and cockpit access), maintenance areas, leading edges, etc. I use the silver paint and Rub-N-Buff to accent these areas. I dry-brushed any heavy wear areas such as the underside of skis and wing root walk areas with silver. I know I already did this before. You cannot create the effect by doing these procedures just once. Returning to the model and adding and redoing a little at a time is what adds up to a good final effect.

#### Mud:

I decided to apply "mud" to the underside of the fuselage and wing. To get this effect I mixed some Polly-S brown, black, white color to a wash and, using a stiff brush "spattered" it on. I tried to avoid over doing this effect. I then loaded my airbrush with a dirty gray Floquil paint, turned down the pressure until the paint "spattered" when sprayed. This was not as effective as the brush method so I stopped. I then added more water to the Polly-S dirty wash mix and dabbed away at the bottom to try to get a dirty, muddy, spattered look. I used a soft brush and piece of sponge. It ended up not looking

too bad, but I think I will work with the idea again. When satisfied, with my mud effect, I removed the parafilm over the canopy, then sprayed another coat of Dullcote.

#### Pastels:

I started by scraping little piles of black, raw umber, and tan pastels onto a card. Using a stiff brush and a stump I started to rub the powdered colors into areas where dirt and grime would accumulate. I also used pastels to add gun blast and exhaust stains. Be sure to go over those shiny worn and chipped areas, the pastels reduce the shiny look and leave a dirty metal look. Any excess pastel can be brushed or blown off the model. If you apply too much pastel, you can remove it with an eraser. This is another technique to work with. I followed the pastels with another light coat of Dullcote.

#### A Note About the Process:

At this point I want to explain that despite the description above, my process is not a Step "A", Step "B", Step "C" by-the-numbers approach. This process is very flexible and leaves you in charge to create whatever you like. The technique involves moving back and forth, a sort of rambling approach (not unlike my writing style). Just keep the basics in mind and move around the model doing a little dry brush, Dullcote spray, pastel, Rub-N-Buff, more pastel, another Dullcote and on and on until you achieve your desired results. It is creative. It allows you to be in charge of your "object d'art". Different and unusual, and you did it. Try it for a fun experience. Boy I do get on that soapbox!

I gave everything a last check and removed the bare metal mask from the canopy and landing light. I removed all masking from the cockpit and wheel well areas. I examined these areas <sup>and</sup> did a little paint touchup. The aiming lines on the windscreen are thin decal strip and some touchup paint.

Now I got out all those parts and pieces and started the final assembly. I attached the elevators, landing gear and skis with 5-minute epoxy glue. The tail ski, exhausts,

## First Look: Italeri 1/72nd P-51 Mustang I

by Robert Allen

The lack of a decent 1/72nd scale Allison-powered Mustang has been almost as puzzling as the longtime lack of a good Spitfire Mk.IX. Both were important versions of one of the two finest fighter designs of World War Two, and both were represented in mainstream injected kit form by crude and/or inaccurate kits, the Frog/Novo example for the former, and the Airfix, Matchbox, and Frog/Novo mediocrities for the latter. There was also a Mustang Mk.I from Model News a short time back. This was a typical limited-run injection molded kit. Hasegawa came to the rescue a year-and-a-half ago with a fine Spitfire Mk.IX. Now Italeri has provided us with the first good 1/72nd Allison-Mustang, kit number 090, (and is reportedly doing its own Spitfire Mk.IX).

The early Mustangs were rarely used in the straight fighter role, the Allison engine suffering a large drop-off in performance at altitude. They were among the fastest Allied planes down low, though, and made excellent tactical reconnaissance aircraft. They were also used by the USAAF, as the A-36, as a dive-bomber and close-support aircraft. Though supplemented by Merlin-powered Mustangs, they were never entirely replaced by them, at least in the RAF. Sixty Allison-Mustangs were still in first-line RAF service when the European War ended.

Italeri covers as many bases as possible, from calling the kit a P-51 Mustang I (a combination of the American and British names), to providing both USAAF and RAF decals, and including several optional parts. These enable the modeler to make virtually any P-51 or P-51A, or Mustang I, IA, or II. These options include two sets of wheels with different hubs, and alternate cannon or machine gun armament for the wings. Two bombs are provided, as are two drop-tanks. There are also a few parts not for use that point to a P-51B coming down Italeri's pipeline; two different seats and instrument panels are provided, as is a radiator intake that looks suspiciously like

one for a P-51B. As the wing of the P-51B was much the same as a P-51A, and not like Italeri's previously-released F-51D, this seems a likely bet. Unfortunately, there is no provision for dive brakes on the wings, so the release of an A-36 seems unlikely.

Cockpit detail is not up to the standards of Academy kits, or even recent Hasegawa ones. There is no detail on the cockpit sidewalls, and the radio behind the pilot seems an indistinct blob. Panel lines are recessed, and seem fine with the possible exception of the fuselage radiator bath, which looks a mite heavily scored. The wheel wells have some ribbing; superdetailers have a starting point, and the rest of us will be satisfied by what's there.

In comparisons with drawings I have, the outline looks reasonably accurate, though the wingtips may be a bit too squared-off. I'm reluctant to make any sort of definitive comment without making the kit, as the "feel" of a model often doesn't become apparent until it's assembled. I'm also aware of the pitfalls of comparing a part's profile to drawings that may or may not be accurate. One thing's for certain: It's better than the Frog kit!

A major omission is the lack of a camera for the rear of the cockpit. Allison-Mustangs were primarily used as recon aircraft, and both decal options included had cameras fitted. The camera is clearly visible on the box art, making its omission even more inexplicable. You could pinch a camera from a Fujimi Spitfire, but that would be an expensive fix.

One decal option is for a cannon-armed USAAF P-51 named "MAH SWEET Eva Lee" from the 134th Observation Squadron, based in Tunisia, 1943. It has six yellow-surround US stars (probably inaccurately) and a US flag on the tail. It sports an Olive Drab and Neutral Gray color scheme. Italeri gives only Testors' paint colors, which often have scant connection with reality. The lower surface color is given as Light Ghost Gray; that's unlikely. An excellent three-quarter front port-side photo of this aircraft appears on page 52 of Jerry Scutts' *Mustang Aces of the Ninth & Fifteenth Air Forces & the*

RAF. Looking closely at this photo points out an error on the decal sheet; the pilot's name, painted under the cockpit, is given as K. F. Bush; it was actually N. F. Bush.

A good three-quarter rear port-side photo of the same aircraft appears in Roger Freeman's *Camouflage and Markings No. 16: North American P-51 & F-6 Mustang, USAAF, ETO & MTO, 1942-1945*. This photo clearly shows that the upper wing star did not have the yellow surround; both wings are not visible, but the P-51 probably didn't carry stars on both wings.

The other decal option is for a Royal Air Force Mustang I from 26 Squadron. Mustangs of this Squadron had the rear part of the canopy painted over to reduce glare, but not completely, as is incorrectly shown on the instruction sheet. The port was more bell-shaped, as shown on the rear cover of the box. A good reference is Robert Jones' monograph on RAF Mustangs in the *Ducimus Camouflage and Markings* series, from which the Freeman monograph is also taken. Colors for this Mustang were Dark Green and Ocean Grey (or possibly Mixed Grey) on the upper surfaces, with Medium Sea Grey lower surfaces.

One minor pitfall must be mentioned when modeling Mustang Is. They were originally supplied with six machine guns in the wings, four .30 and two .50 guns. In service, many were modified to carry just four British .303 guns. This is the configuration included in the kit, but care must be made when modeling any individual aircraft.

Aftermarket decals for the Allison-Mustang are not exactly numerous. Most seem to be of Canadian subjects. IPMS Canada produced an excellent D-Day decal sheet in 1995 that included an RCAF Mustang I with invasion stripes, in addition to three Spitfires. This sheet is currently out of print. IPMS Canada also produced a very nice decal sheet for 400 Squadron RCAF, which included two Mustangs, one in squadron service, and one in operational training guise with yellow codes. This sheet is still available

*continued on page 14*



## The Republic P-47D in Ecuadorian Service

by Alfredo J. Jurado, IPMS Ecuador

Ecuador was the third Latin American nation to receive the Republic P-47 Thunderbolt, after Brazil and Mexico. Ecuador received twelve P-47Ds, one C-47A and an AT-7, after being accepted as participant in the American Republic Project (ARP), mainly for Ecuador's help in leasing the air bases of Baltra in the Galapagos Islands and Salinas, for the defense of the Panama Canal during World War Two.

Despite being paid for in November 1946 (before Colombia, Chile, and Peru) at a price of US \$6,500 each, political factors dictated that the four countries were to receive their aircraft at the same time. FAE Thunderbolts didn't arrive in Quito until April-June 1947, following an urgent message from the Chief of the U.S. Mission to the State Department, reporting that FAE officials were threatening to resign if the State Department didn't hurry the delivery of the already paid-for aircraft.

The aircraft were flown to Ecuador on June 16, 1947 from Kelly Field AFB in San Antonio, Texas, under ARP 73001 Project. They were flown by Ecuadorian pilots, with Lt.Col. Edmundo Carvajal as Chief Commander, and provided with 150 gallon external fuel tanks. They made a stop at Veracruz, Mexico where the plane of Cap. Jorge Muller made an emergency landing. They continued to Guatemala, Managua, San Jose and Panama, arriving at Guayaquil on the 24th, where they had to wait for better weather conditions in Quito, their final destination.

The formation stayed in Guayaquil until June 27, No. 400 of Lt. Col. Carvajal being grounded due to right magnet problems. He, as Commander of the mission, had to continue with Maj. Victor Suarez's aircraft. The grounded aircraft continued the flight on July 1. Spare parts and maintenance personnel were flown into Quito in a USAF C-47, whose pilots were Maj. Moses G. Gatewood Jr. and Cap. Robert Bieck from the US Air Mission. By the time the Thunderbolts were received, they were

one-third of the FAE's inventory and without any doubt the most powerful weapon.

In the beginning, all twelve aircraft were stationed at Mariscal Sucre's AB in Quito and flown with severe weight restrictions due to airport altitude and the length of the runway, not to mention the risky approaches when flying between nearby mountains. For political reasons, one aircraft was detached in Guayaquil and another in Salinas. By May 1948, the FAE had lost one aircraft due to a crash. Another fatality occurred in January 1949.

In that year, there was an attempt to establish an incipient bomber squadron that could match those of Peru and Colombia, and the FAE was granted approval to purchase three North American B-25 Mitchells from the US Foreign Liquidation Commission (FLC). Nevertheless, before the contract was signed, and following a report from the US Mission, stating that the B-25 would have demanded more maintenance costs and personnel for the operation, the FAE requested three or four P-47s instead, to replace those lost due to attrition.

Four aircraft were approved as one of the last ARP cases, with number 9SF-116 and a "where is as is" status. On May 2, 1949, Capt. G. Fernandez chose aircraft 44-32897, 44-32797, 44-32873 and 44-32912. With this aircraft, the FAE created a group of professional pilots and technicians that would become the start of the modern Ecuadorian air force. Helped by a small but enthusiastic USAF Mission, the FAE got the most out of their Thunderbolts and at the same time created a "spirit d'corps" that prevails to the present time.

This extensive use of the aircraft took its toll. By January 1953 the condition of the ten remaining ARP aircraft was very poor and the USAF Mission warned that the FAE workshops were going to be completely full to keep the P-47s in flyable condition. The Mission's warning took

hold, and the Fighter-Bomber Squadron soon received ten T-6s of different subtypes.

With the birth of MDAP, the U.S. State Department soon realized that it was necessary to reinforce the now diminished FAE, and included six F-47D-40 aircraft for Ecuador in the MDAP program. These aircraft were delivered under the IV Plan of the MDA Program for 1952 fiscal year. Aircraft were received in 1953.

Nevertheless, the modernization program of the Brazilian air force was going to give a boost to the number of aircraft received by Ecuador. Brazil, with the arrival of their new Gloster Meteors, put out of active duty 40 F-47s, which were re-delivered to the MDAP Program and given to other Latin American countries. The FAE received eleven F-47D-40s instead of the six originally requested.

These planes were flown into Quito by USAF Ferrying Squadron pilots, accompanied by a single B-26 Invader, arriving in June 1953 in a precise timing. In April that year, the FAE could fly one single Thunderbolt for 5 hours and 20 minutes only.

Soon after the arrival of the aircraft, 22 junior Lieutenants were checked out by members of the Mission. The Fighter-Bomber Squadron now had 20 aircraft and 25 pilots, but not all of them were highly qualified. By June 1953, eight new F-47s passed the 100 flight hours inspection and were assigned temporarily to Salinas Air Base, being extensively used by US Mission members to check out FAE combat pilots. In the program was included the repair of the nine ARP delivered aircraft and by the end of the same month, 17 new pilots and 7 experienced ones were qualified in the type.

As the month of August 1953 passed by, FAE Thunderbolts had flown more hours since the arrival of the F-47D-40's than in the previous 18 months, and the USAF

Mission reported good progress with the training. By September, the arrival of the new machines caused some side effects, like the need to name the FAE units and squadrons. The F-47-equipped unit was named as the 10th Squadron of the 100th Fighter-Bomber Wing.

MDAP strategists had designed a hemispheric defense plan, which comprised pact forces that every country had to set up. By the end of 1953, Ecuadorian forces included a fighter-bomber squadron well equipped with 25 F-47s, from which only 16 were available since nine of them needed some repair.

Repairs and tune-up of the 9 survivors of the ARP Project was the main objective of the US Mission from November 1954 until January 1957, being assigned as Project 54-7. By January 1956 only 30% of the job was accomplished, mainly due to lack of space in the hangars, which enabled the repair of only one aircraft at a time.

Project 54-8, linked to the before mentioned project, enabled in July 1954 the training of two FAE pilots as test pilots. They were possibly the first Latin American pilots to receive such training. The pilots achieved their goals rapidly, flying more than 40 hours at sea level out of Salinas Air Base, with the job of identifying and isolating a chronic problem with turbochargers that was burning the exhaust pipes in mid-air when flying over 8,000 feet.

These catastrophic turbo problems led to a suggestion from the US Mission, recommending sea-level flights only, out of Salinas AB and flying below 10,000 feet, since the aircraft were successfully operating on these parameters without the turbocharger. As a result of this report, all turbochargers were removed from the aircraft and they were assigned as fighter-bombers for low-level interdiction missions for the rest of their days. Later on, the US Mission helped the FAE in locating the firm TEMCO, a commercial turbocharger supplier, who replaced the systems in 12 aircraft, enabling operations to be made over the mountains. Despite all efforts, the repair of turbocharger systems, the maintenance and pilot training projects,

financed until January 1958, FAE interest in this aircraft was steadily diminishing because they had their eyes in the jet age to match their Brazilian colleagues.

In June 1955, Maj. Daniel Pinoargote, Squadron Commander, traveled to England to be trained and bring home the new Gloster Meteor FR.9 fighters. Replacing him was Capt. Hugo Idrovo, who was commissioned to transfer the unit to Salinas Ulpiano Paez AB, giving space in Quito for the just arrived Meteors and some T-33As and F-80Cs that were programmed as replacements for the F-47s, under a MDAP Project. Shooting Star deliveries started in November 1956.

Based in Salinas, the F-47s restarted their combat training, shooting and bombing the Pacoa Range, near Ballenita in the Santa Elena peninsula. Maintenance and training operations continued until 1954, two more units being re-established into service in March of that year. During the first quarter of 1954, F-47D-40s flew 120 hours in air combat, bombing, and flight formation missions.

The US Mission's tactical training project (No.54-1) began in April 1954, ending in June 1956 when No.10 Squadron was considered "combat ready" according to USAF standards. This was a remarkable event and rarely seen in the experience of MDAP's IV Hemispheric Defense Plan.

Problems started again in April 1954, probably due to extensive use of the aircraft. By then, they had flown 214 hours from the beginning of the year, and the whole fleet was grounded as a consequence of a fatal crash in the last week of April, reported as an engine failure, being this the sixth failure from TEMCO's repaired engines.

By June same year, eleven overhauled engines were given to FAE, as a special supplement of the MDAP Project, with the purpose of refurbishing the Squadron and re-establishing FAE confidence in the type. Nine R-2800-59 engines were also delivered, with a special team from AMC to supervise the installations and check FAE maintenance procedures. At the end of the month, the FAE had eight operational

aircraft, nine not in service and 25 trained pilots. Despite all circumstances, FAE Thunderbolts continued operating without major events until 1956, still counting 17 aircraft, when they were grounded again. This time the reason was explosions in the exhaust pipes located in the rear of the aircraft.

In 1954, the FAE was planning to transfer the F-47 unit to the new Taura Air Base near Guayaquil, keeping the transition and tactical training in Salinas. Arrival of the first jets stopped this plan. Following the grounding and lack of spare parts, apparently 12 aircraft were sent to Quito in 1958 and put back into service as No.108 Fighter Squadron, joining five T-6Ds. Surprisingly, all twelve F-47s were considered "combat ready".

By the end of 1957, during a routine flight, Lt. Abad reported an emergency when he was not able to lower his landing gear, being forced to make a belly landing. After incident investigations, a loose bolt that was crushed in the landing gear mechanism, maybe hidden in the grease, was reported as the cause. Lt.Crnl. Jáuregui, ordered then the complete and final suspension of all operations of the F-47D Thunderbolt. Thunderbolts lost their status of "combat ready" in December 1957, mainly because of difficulties in the maintenance of the aircraft and flight security. Despite this, 15 new pilots were graduated and joined this Squadron in a 45 hours rotation for missions of flight formation, air combat and dive-bombing. While the F-47s were grounded, some pylons and cannons were installed in T-6Ds to help the pilots stay active. Many experienced F-47 pilots were transferred to T-33As and Meteors. One of the last functions of the F-47, and certainly not fair for this memorable aircraft, was target towing for F-80C gunnery practice, with the 2110th Squadron in Quito.

As a not well-documented condition for the delivery of the Shooting Stars, the FAE was forced to destroy the last examples of their F-47s. This happened between December 1958 and June 1959. All that was left was a .50 caliber machine gun rescued by a FAE General and donated to the Air Museum in Quito.



Some aircraft received a TF-47D designation. This did not mean two-seater conversions, but was assigned for being used by USAAF/USAF as trainers (Trainer/Fighter).

One of the twelve aircraft delivered by the MDA must have been diverted for delivery to Peru or Chile, as nine were confirmed delivered in Quito in June 12-13, 1953. The "missing" plane must be FAE-417 that force landed in Jamaica during its delivery flight. Other two are D-40 versions s/n 44-90287 and 44-90359 that despite being included in ARP 73001, apparently never reached their destination.

FAE-401, ex Strother AFB, La Junta AFB, Independence AFB, Tinker AFB and Kelly AFB, while in service with the USAAF. Converted to D-40 standards before delivery to Ecuador.

FAE-402, ex Strother AFB, Ft. Sumner AFB, La Junta AFB, Independence AFB, Tinker AFB and Kelly AFB, while in service with the USAAF. Converted to D-40 standards before delivery to Ecuador.

FAE-403, ex-Abilene, Love Field,

Independence, Tinker and Kelly.

Converted to D-40.

FAE-404, not known if converted to D-40 standards.

FAE-405, well worn aircraft. Last assignment was Kelly AFB. Not known if converted to D-40 standards.

FAE-406 to FAE-409, ex Kelly AFB. Not known if converted to D-40 standards.

FAE-414 to FAE-421, ex Tinker, Hensley. Converted to D-40 by TEMCO.

FAE-417, sustained landing gear damage during a stop in Kingston, Jamaica. Was repaired and delivered to Ecuador.

FAE-420, originally should have been delivered to Brazil.

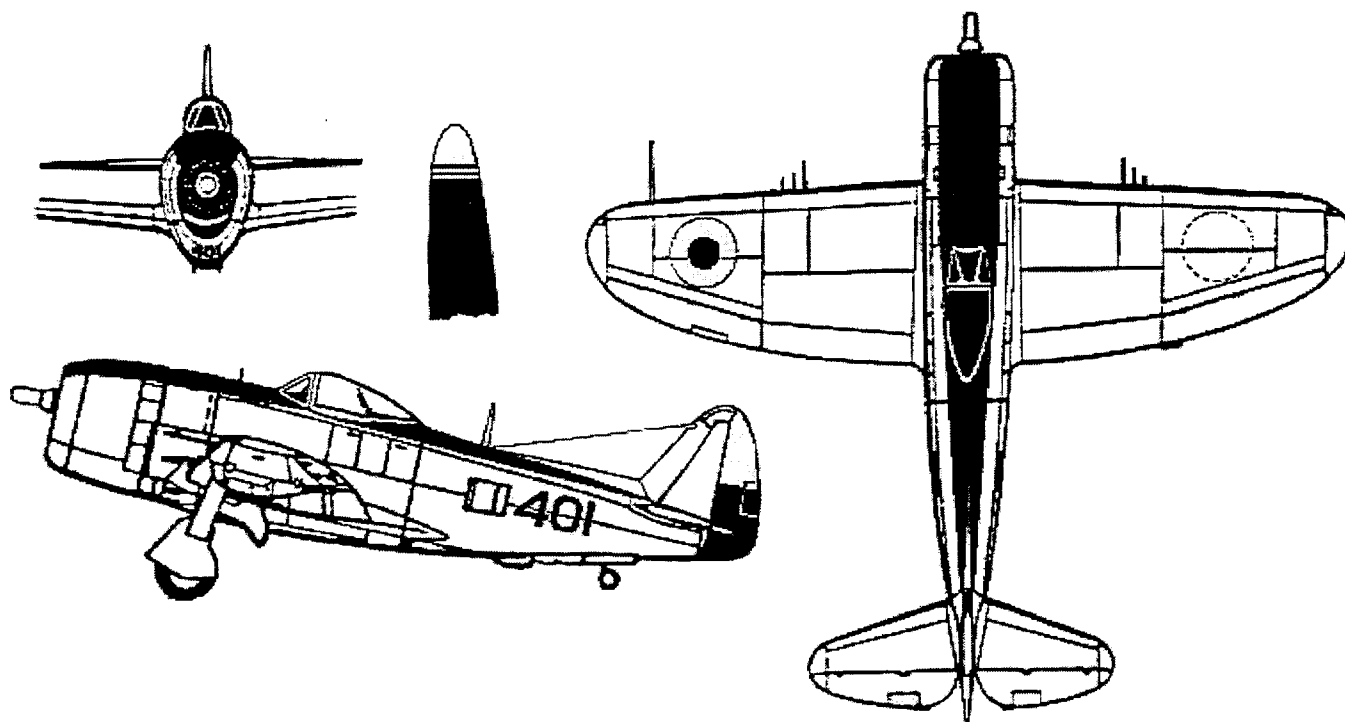
On their delivery flight, aircraft were natural metal and lacked any color or insignia that could identify the nationality. They only had the name and rank of the pilot on the left side of the cockpit in bold letters of approximately one inch. They also had maintenance instructions and data related to serials and manufacturing codes. Anti-glare panels in these early models were Olive Drab and covered the

upper fuselage from the top of the cowling to the fin root.

After their arrival, the rudder was painted with the national colors (from top to bottom: yellow, blue and red), the yellow color being of the same size as the blue and red together. Roundels were applied on top of the left wing and under the right wing. Serial numbers were in black, approx 50cm high and were painted on each side of the rear fuselage, and in much smaller numbers under the cowling chin. Only FAE-411 had the cowling painted entirely in red.

The second batch of aircraft had anti-glare panels in flat black, extended only to the windshield. The serial number under the chin was eliminated, and relocated at each side of the cowling. A red step area was painted on each internal side of the flaps. The propeller was a 12' diameter Curtiss and the blades were semi-gloss black with tips and two stripes in yellow.

FAE P-47 serials were 401 to 421 inclusive.



*FAE-401 in the initial operational scheme*

## Two Kit Reviews: 1/72nd DAKO Yakovlev Yak-9 & 1/72nd ICM/ Encore Yak-9

by John Allen, IPMS Tidewater

### *DAKO Yakovlev Yak-9*

DAKO is among the promising new Russian injection-molding companies. Their recent releases are two quite good but different LaGG-3 variants, and a very nice kit of a mid- to late-production Yakovlev Yak-9. The Yak-9 kit provides a fuselage with the original (unmodified) cockpit location and a late-style wing with squared-off tips and slightly shorter span. As a bonus, the nose oil cooler scoop is a separate piece and has the correct contours. This scoop could be vacuformed and used to replace the incorrectly molded ICM/Encore kit item. The only drawback to the kit arrangement is a hole in the fuselage that needs filling inside the scoop rear (sheet styrene to the rescue!).

The kit allows you to model one of the following three versions: Yak-9, Yak-9B, and Yak-9R. You get decal markings for four different aircraft, 2 of the first variant plus 1 each of the other two.

The moldings are fairly crisp and most parts have just a minimal amount of flash on them. Most detail parts are well molded, and the exhausts are well-represented and just thick enough to drill out. The dual exhaust tubes will benefit from rescribing their separations, however.

Panel lines are recessed and delicate, and match up well. Some very fine recessed riveting is also present (more on this later) under the wing and on the main landing gear doors. And speaking of gear doors, all main gear doors are well done with internal panel detailing but no ejector pin marks. Hasegawa please take note and follow DAKO's lead!

The kit scales out well and the outline appears absolutely accurate. However,

there is very minimal detail in the wheel well area on the lower side of the upper wing, and no wheel well walls are provided. These areas are correct in outline, unlike the ICM/Encore kits. Both fuselage halves have internal detail cast onto the cockpit instrument panel and sidewalls, though this is rather softly molded on my examples and will benefit from sharpening up or replacing. Air-waves and Eduard have nice Yak-3 brass sets that should suffice. As far as I can tell, the rear cockpit decking is OK for the Yak-9 and Yak-9R variants.

However, the kit-provided Yak-9B (bomber) cockpit rear area is most unconvincing and really needs addition of the four internal vertical bomb cells, racks, and bombs. The longer canopy rear fairing for this variant is included and the instructions show where to cut away some of the fuselage plastic to install it.

For the Yak-9R (recon), the sprues contain the camera and camera port window glass, with instructions on its installation. The instructions contain clear elevation cutaway views of both bomb and camera installations. While bomb attachment remains unclear from my available references, I assume that it utilized shackles on a near-vertical rack similar to the under wing arrangement on many aircraft. Overall fit is excellent, wing-to-fuselage fit being particularly good and far better than with the ICM/Encore kit.

The clear parts are correctly shaped and are of Hasegawa quality on my example. The canopy is molded in separate sections to facilitate leaving it open.

The only real drawbacks I've noticed so far are that the undercarriage main legs seem to be too thick and the fine rivet patterns seem too profuse in this scale. Both these problems are minor in nature and can be easily fixed, the former by scraping/sanding and the latter by filling and sanding.

This kit lends itself to other conversion possibilities by using the Mikro/ZTS Yak-1M wing (or just its wingtips) for the original long span with the more pointed

tips of the earlier Yak-9 versions. These early Yaks also used a straight-tapered spinner, though photos of refitted aircraft show the later more bulged version provided in the DAKO kit. As with the ICM/Encore kits, it provides a good starting point for a Yak-1M and can be combined with wings from the Mikro kit, but the separate under nose oil cooler should make it easier to convert than the ICM/Encore kit.

I highly recommend this kit and have purchased several to make some more Yak-9 variants.

### *ICM/ Encore Yak-9*

ICM is another of the promising new Russian [*Ukrainian, actually -ED*] injection-molding companies. Among their flock of recent releases is a decent, much-needed kit of a WWII-era Yakovlev Yak-9. This product has also been packaged by Encore as two separate Yak-9 kits, but each contains identical sprues (just different decals and instructions). Based on my research, the kit will produce one of the following versions: Yak-9, Yak-9B, Yak-9D, Yak-9DD, Yak-9K, Yak-9M, Yak-9R, and Yak-9T (and I've probably left a few others out).

In the ICM boxing, you get decal markings for ten different aircraft. Each of the two Encore boxings has decals for 3 different aircraft (but no instrument panel decal), and the boxing for the Yak-DD,K,T has markings for the "T" variant (45mm cannon), for which ICM has none. The Encore decals are of better quality than my first ICM kit's, but not as good as those in my second. Also, the ICM decals are more accurate in minor details and have instrument panel decals and markings for variants that the Encore kits don't, so the purchase of both offerings is a good idea if you want the markings. The Encore kits retail for much less than the ICM boxing, but you'd only need the one ICM for its decals.

The moldings are crisp and the parts have little or no flash in most areas. Most detail parts are very delicate and well molded, with the exhausts being particularly well

done. Panel lines match up well and are primarily recessed with a few as fine raised lines. Some may consider a few of the engraved panel lines a shade too wide, but they didn't bother me enough to rescribe them.

The kit scales out acceptably and the outline is correct save for three areas, which are easily fixed (more on these later). There is structural detail on the lower side of the upper wing, but no wheel well walls. Both fuselage halves have nice internal detail crisply molded onto the cockpit sidewalls. But best of all, this thing really looks like the Yak-9, and is several million light years ahead of what came before.

For a better Yak-9B (bomber), the cockpit rear area needs addition of the four internal vertical bomb cells, racks, and bombs. For the Yak-9R (recon), a round window glass for the camera port in the wing/fuselage bottom below the rear cockpit area is required, but this can be cut and fashioned from the extra clear armor glass in the kit. Unfortunately, no vertical camera is provided by the kit but is easy enough to make. Unless you are doing a Yak-9B, the cockpit rear shelf needs a radio and rear bulkhead added.

Fuselage fit is excellent, but fitting the upper wing halves to their fuselage mating areas will provide several hours of "fun" (for which read "extensive filling and sanding"). The "Brickhouse" method of upper wing attachment won't work here due to insufficient height of the fuselage's wing fillets. Additional (but less) "fun" is required at the horizontal tail mating areas.

The following three areas are noticeably wrong and need correction:

#### *THE UPPER FUSELAGE NOSE CONTOURS*

Build up with putty so that the upper fuselage line from the canopy is horizontal to the thrust line and is straight out to a point approximately 1/2" from the blunt end of the nose (aft of the spinner). From there it should curve down to the existing spinner location. If you have a Hasegawa

Yak-3, follow those upper nose contours as a guide. File in a new 12.7mm MG blast trough where the old one was and add the MG from stretched sprue.

#### *THE WHEEL WELL OPENINGS IN THE LOWER WING*

In plan view, the front of the wheel area is angular instead of rounded like the rear. Normally, this wouldn't be very noticeable except that the doors have the correct rounded outline. Even so, this defect could probably be ignored unless you choose to add wheel well walls. I decided to add the well walls, and fixed the outline problem by slightly rounding the forward wheel area. I then lined the opening with 0.005" thin styrene sheet to the correct outline. I had to do this twice, using superglue the second time so the thin plastic wouldn't melt. Beware, or you will an hour or so of extra "modeling pleasure"! Fill the angular gaps left in front with superglue, again so the 0.005" thin plastic won't melt. Line the remainder of the wells and add superglue reinforcement all around. Using a sanding stick, reshape the tops of your new wall contours to match those of the inside of the upper wing halves, checking their fit often. The reason for using such thin sheet is that it conforms easily to the desired outline (like paper) and does not appreciably reduce the wheel well opening in size.

#### *THE CANOPIES*

Both versions are much too flat and don't fit well. Raise it by adding 0.020" or 0.025" styrene shims at the bottom all around. File/sand off the frames and repolish the canopy. The styrene strip added at the bottom now becomes the lower frame and has raised it up enough to look OK. If you were careful, it can now be used as is or it can be vacuformed over. An alternative is to vacuform the DAKO kit canopy, if you have one. Regardless of what canopy is used, the fit to the fuselage has to be made using putty. I recommend Miliput (a thick clay-like epoxy) for this as it doesn't attack or discolor the clear parts, has minimal shrinkage, and can be final-shaped with a moist finger or dowel and then cleaned up with water. Its working time in small amounts is about 10

minutes. Simply roll out and lay a thick enough bead around the canopy's periphery, then wet the canopy and push it down into the Miliput. Shape using a moist dowel or finger to match the fuselage and canopy contours. Wipe, scrape and peel away any excess on the outside of the canopy and fuselage. Carefully lift off the canopy and trim and scrape or peel away any excess Miliput on the interior. Let it dry for about one hour, paint the interior color, then attach the canopy. An additional Miliput application may be used on the outside if needed, and can be used as glue.

While the shape of the propeller is OK, its molding is less than perfect. I covered the entire front of each blade with Tamiya putty, sanded it to an airfoil shape while retaining the existing blade outline, and ever so slightly rounded the tips.

Things I would recommend doing for a more accurate model, if you're into that sort of thing:

A. Box-in the wheel wells and fix the associated outline problem at the same time. See subparagraph 2 above to avoid melted 0.005" styrene and hindsight therefrom. You will have to trim away part of the landing gear leg sockets, but there will be enough left for leg attachment later.

B. Drill-out the exhausts BEFORE you clean them up, otherwise they will be too small in diameter to do so. I didn't, and had considerable trouble drilling them out afterwards, using a #77 drill (of only about 0.016" diameter!!!). This has to be done prior to assembling the fuselage halves, as they are inserted through an open slot from the inside. The finished effect is quite nice.

C. Fix both canopies and vacuform them if you're going to do several of these kits. Alternatively, you can vacuform the DAKO kit's canopies.

D. Round the rectangular cross-section of the nose scoop, and add its cooling air exit door using 0.010" sheet styrene and

*continued on page 14*

## Kit Review: 1/35<sup>th</sup> Scale Accurate Armour Faun Elefant Panzertransporter

By Peter Evans, Birmingham  
Branch IPMS/UK

Before commencing this review it is necessary to put this kit into some sort of perspective. It is probably Accurate Armour's most ambitious armor release to date, and costs in excess of £200 [About \$340 - ED]. For that kind of money an exceptional product is required, and willingness on the part of the modeler to both part with the money, and tackle the subject matter. But then, what are credit cards for?

Once the dilemma of justifying the outlay has been resolved, - and I know many of you will find difficulty over a lump of resin -, then the job of making the kit can begin.

The Elefant comes packed in a large box measuring 38.5 cm X 29cm X 8.5 cm, the top adorned with a front three-quarter view of a completed model in color. The well-protected bubble wrapped interior contains, (in my sample)

6 polythene bags, 4 with green resin and 2 with grey resin parts.

2 small boxes containing white metal parts

1 plastic bag containing the chassis bases for tractor & trailer

1 plastic bag containing decals, clear plastic sheet,

Cable / wire / tubing / thread plus 2 brass fret sheets.

A 14-page instruction booklet.

There are approximately 360 parts to the kit (not including the frets).

### Tractor

Construction begins by attaching the white metal front axles to the tractor chassis.

This is molded in green resin and is 24cm long. Minimal flash and no bubbles were evident. To overcome warping with a ladder chassis. A.A. has molded the cab floor integrally, allowing much greater strength. They also suggest fixing the springs to the axles with epoxy glue for greater rigidity, and I followed their advice. As is usual with A.A., they use photographs instead of exploded diagrams for construction, and this initially causes some confusion as to the fit of the parts. As a photo hides underlying detail it is easy to miss the layout during assembly. I am not the first modeler to criticize A.A. over this, although recent releases have shown a marked improvement in photograph quality and detail. With few other references available the modeler is totally reliant on the kit instructions for accuracy. Superglue allows few errors!

At the commencement of assembly the problem of part identification rears its ugly head, trying to find specific part numbers out of hundreds of possibilities wastes much time. Good pre-production part ID on my part would have been an excellent idea at this point!

The Faun tractor is an 8x6 design, meaning six driven wheels out of a possible eight, (on four axles). From the front the 1st, 3rd and 4th axles are driven with differentials / driveshafts, the 1st and 2nd axles being the steered ones. The eight wheel/tires (plus one spare) are 34mm in diameter, and 14mm wide. They are molded on center, with a superb non directional deep tread pattern, and have minimal flash. The mould plug, when sawn off, leaves behind a flat for the tire base, depicting a realistic looking sit. If tracks maketh tank, then wheels most definitely maketh truck!

Many of you will have bought early resin truck kits, only to find the tires molded off center, with a deep ridge separating the misaligned halves. This means recourse to sanding the tire flat around its diameter, then re-scribing the tread detail. Very, very tedious. Experienced truck modelers will find the suspension follows the normal practice of hanging the axles off transverse pivot leaf springs on all four axles, drive shafts connecting to the

gearbox via a transfer box. The suspension mounts are resin, with axles/springs in white metal. A.A. recommend not gluing the leaf springs onto their trunnions, allowing them to pivot, thus when the wheels are in place on each paired axle set the movement should allow better wheel alignment with the ground, there being nothing worse on a truck kit than a "rocking chassis!" Guess who failed to follow this advice?

As with every other multi wheeled resin kit I have completed, wheel / suspension alignment is tricky, and nigh on impossible to achieve perfectly. With all the differing tolerances between resin and white metal parts, it seems similar to straightening out the arms of a live octopus, once one section is correct, the others are thrown out. A totally flat surface is essential, this part of the assembly taking the most time. The method I ended up doing was to complete the basic suspension on its mounts, then blue tack all eight wheels to the brake hubs. The shock absorbers, steering arms etc. can then be superglued in place. With constant reference to your flat surface the suspension can be built progressively, not allowing alignment error to creep into the construction. The result was very nearly perfect, with all eight set up correctly in azimuth, with just 0.25mm or so error on two of the wheels on the flat. Following suspension completion, the cab and rear body can be completed, but this also is a major job requiring many hours. The winch mechanism behind the mid mounted engine is a work of art in its own right, and the hydraulic cables and air lines for this area require major concentration. The instructions state that this area is simplified!

A sheet of clear acetate provides cab glazing.

The completed Tractor is 25cm long and 9cm wide.

### 56 Tonne Trailer

This is of a totally flatbed design, with two integral ramps, connected to the tractor using a fifth wheel coupling, via a

*continued on page 14*

## Danger! Danger! - Accurizing Polar Lights' *Lost In Space* Robot

By Richard Wright, IPMS Atlanta

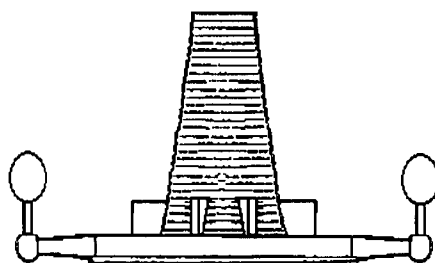
Polar Lights has won the hearts of many modelers by reissuing a steady stream of old Aurora kits that have previously been nearly impossible to find or afford. Probably the most popular reissue has been the Robot from the 1960's TV show, *Lost In Space*. This kit has been on my personal wish list since I returned to modeling nearly ten years ago. With one minor omission, it is a faithful reproduction of the old Aurora kit, right down to the instructions. However the old Aurora kit wasn't perfect and those original inaccuracies have been carried through this current incarnation. Contrary to what some 'old guard' modelers may think, accuracy is just as important to science fiction modelers as it is to military modelers. Careful study of studio diagrams, still photos and videos of the show give us excellent resources to correct most of this kit's problems.

Starting from the top of our plastic pal, the first problem encountered is unfortunately also the hardest to correct. The clear 'head' dome is molded in two parts with the seam roughly at the equator. The original Robot also had a two-part bubble, but the seam was at the bottom. The problem with locating the seam there is that the mold for the upper 'half' would have an undercut, which is not easily accomplished. It may be possible to vacuum-form a bubble dome with that undercut, but removal of the male mold would be difficult, if not impossible. Too bad, since a vacuum-formed bubble would have a more accurate thickness. If anyone can think of a solution to this problem, I would love to hear it. I suspect we will just have to live with this one... Oh, and just in case you were curious, the original bubble was blown.

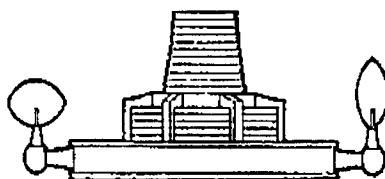
The clear 'triangle sensor' should not be clear. Ideally it should be an etched brass part (hint to aftermarket folks out there)

which would do justice to the intricate pattern of holes in the sides. It should also have a slight concave curvature to the sides of the triangle. All of the corners should also be rounded, with only the two square flat areas on the 'front' of the triangle, but not on the ones on the 'sides'. The hole should also be located a little bit closer to the curved 'rear' corner.

Next is the 'star sensor' (part #30). The arms should be thinner and all the same length. They should also be tilted at different angles relative to the horizontal. This one is easily fixed with some styrene rod or stretched sprue.



Kit Parts



Corrected

The bad news is that the 'sensor cone' (part #28) is just plain wrong. The good news is that the kit part can be used as the basis for a correct version. First, there is a rim at the bottom of the part, but there should also be one above the base and the 'arms', creating a more pronounced band at the base. Adding a round disk of sheet styrene should fix this. There should be a collar of stacked disks at the bottom of the 'cone', with radial spokes similar to the spokes on the part but taller. You can add the stacked disks and the taller spokes with sheet plastic. The arms that hold the 'plate sensors' are also too long. Stretched

sprue or styrene rod would make nice replacements, and if thinner rod is used, the effect will be better. However, you could probably get away with just cutting off the arms, shortening them and then gluing them back on. The final problem with the head area is the 'plate sensors' themselves (part #29). The parts are molded as round disks, but should be more oval, with the right one being horizontal and the left vertical. Again, brass would be the best material to use here since these parts were thin. They also had a slight curvature that would be easier to replicate with sheet metal or lead foil than with styrene.

The body doesn't suffer from nearly as many inaccuracies as the head, but there are still a couple of problems. The first one we encounter in our top-to-bottom trip is the array of square buttons on the Robot's front control panel. There are too many of them. There should be two rows of five buttons, not two rows of seven. I recommend sanding the whole array flat and either etching a new array with a scribing tool, or replicating the array with colored decal film. There was writing on the buttons, but it is impossible to reproduce in this scale. For those that are interested, the proper sequence of colors for the buttons is red, green, red, green, red. The top and bottom rows are the same. The smaller round lights below the buttons are correct and their color sequence is: (top row) blue, amber, red, amber, amber, blue, (bottom row) amber, red, blue, blue, amber, red.

The arms are accurate, even if it is almost impossible to hide the seams. The 'hooks' actually have the correct angle, which surprised me. However, the wrist plate at the end of the arm bellows should be recessed slightly. Simply grind out most of the plate (leaving a rim) and then back the rim with sheet styrene. I will be cutting down the arm bellows on my model to show the arms in the retracted position, but that is just personal choice. I do not want to even discuss the 'electronic ray' (part #2).

*continued on page 15*

**ICM/Encore Yak-9***from page 7*

reference photos/drawings. Substituting a vacuform copy of the DAKO kit scoop would be an easy fix here.

E. Widen the side console panel shelves and detail or swap out the instrument panel to avoid using the kit's dreaded "instrument decal". The Airwaves or Eduard brass sets can help in both instances, though I successfully widened the console panels with 0.060" by 0.010" strip styrene instead of using the brass. And, unless you are doing a Yak-9B, add a radio and rear bulkhead to the cockpit rear shelf.

This kit lends itself to other conversion possibilities by using the Mikro/ZTS Yak-1M wing (or just its wingtips) for the original long span and more pointed tips of the earlier Yak-9 versions. These earlier Yaks also used a straight-tapered spinner, though photos of refitted aircraft show the later more bulged version provided in the ICM/Encore kit. Also, this kit would make a good starting point for a better Yak-1M, allowing use of the Mikro kit's wing and canopy.

**Faun Elephant Panzertransporter***from page 12*

cantilever shaped section. It uses the ultra modern design - for tank transporting - by using six independently sprung axles, each carrying four wheels. The 3rd, 4th, 5th & 6th axles are steered, the 1st and 2nd being fixed. A total of 24 commercial sized HGV tires therefore spread the weight of the load, following current European abnormal load movement practices. This reduces the wear and tear to road surfaces, for Heavy Goods Vehicle weights far in excess of that allowed by EEC legislation (38 tonnes in the UK, 44 tonnes on the Continent). With all up weights in excess of 100 tonnes when carrying an MBT, modern tank transports require (in the UK) escort by the police (military or Civil) on many roads, by law. They are restricted to a 40mph / 62kph speed limit, as depicted on the kits decal sheet. A similar type of design is currently under

test in the UK to pull Challenger 2 MBT's, to replace the Scammell Crusader transporter. The kit trailer is packed with superb detail; all the pulleys and control parts for winching vehicles are depicted. A.A. state that the wheels can be made to steer, with a little extra work, but with no easy provision for that option on the Tractor I fixed them in the straight-ahead position. I particularly liked the detail of the tire tread pattern...but I am not looking forward to painting and dry brushing all 24! The real nutters have the provision of completing the airlines for all the brakes on the complete model, as the airlines on the tractor airbrake tanks are provided. This will be a matter of choice, as with the possible scratch building of the dozens of air brake valves under both halves of the kit. I for one gave that part a miss. The complete trailer is 40.5cm. long, the completed model (ramps up) approx. 64 cm....or just over two feet long. A rough calculation approximates the real vehicle scaling out at about 75 feet in length. Where would you park it?

**Conclusion**

This is one major project, painting aside upwards of 100 hours were used in construction. Provided the modeler is conversant with multi-media construction techniques, and uses the correct tools, then there should be few problems. I could find none of the usual problems associated with resin in respect of air bubbles, and only slight warping was evident on some of the fragile thin parts. The quality control essential for such a high priced kit seems to be fully evident, although for that kind of money, it is essential!

The complete model when painted will be a stunning centerpiece to any military modeler's collection.

Decal options include: White painted & 3 tone camouflage scheme IFOR \ SFOR vehicles, and up to six different Bundeswehr tank transporter companies, complete with warning signs, weight stencils and also a neat "Elefant" company insignia for the front & rear. This is a complete decal sheet and no further markings should be needed.

With so many kits of modern German armor available, dozens of load options are available. They include the Tamiya Leopard 1A4, Gepard, Marder APC, Italeri Leopard 2 & 2A5, M110, Revell M109G (no, not the plane), M88A1, Leopard 1A1A, & A2 plus updated Marder. Dragon's M270 MLRS is another possibility. I chose the Italeri Leopard 2A5 Kws kit, but that is inaccurate in several areas, including the driver's hatch...but that is another story!

**Italeri P-51 Mustang***from page 6*

for \$5.00 from the IPMS Canada web site at [www.ipmscanada.com/order.html](http://www.ipmscanada.com/order.html).

Arrow Graphics sheet B-87-72 contains an RCAF Mustang I, the same 400 Squadron machine with yellow codes mentioned above. Hopefully more aftermarket decal sheets should be coming out soon, especially ones with additional USAAF options.

This P-51 kit fills a gap in important WW2 fighters that has been around for far too long. I look forward to building it!

**Yokosuka E14Y "Glen" Information Wanted**

Two issues ago, I asked for classifieds from members, and offered to help out with information. Unfortunately, the only appeal for help I've received is something I can't yet answer, despite consulting several reference books. It concerns the Yokosuka E14Y, (Allied code name "Glen"), the Japanese float plane designed to be launched from submarines; the E14Y was the only enemy aircraft to directly attack the Continental USA during the Second World War.

The question involves the cross section of the rear fuselage. Two recent 1/72 kits, by MPM and Fujimi, have appeared. One has a flat bottom to the rear fuselage; the other is more rounded. Does anyone have photos or drawings which could confirm which kit is correct? If so, please call or e-mail the editor. Thanks!



**IL-2 Stormovik**

from page 5

bombs and rails, and finally the prop and spinner were epoxied in place. I added the antenna line using .002 monofilament and white glue for insulators. The flying surface actuators and the sliding canopy were white glued in place. I took a last look over, made some final touchups and then the model was set down onto its finished base. We did build one - didn't we?

This is a good kit with a few problems (probably of my doing) that are solvable by most all builders. I am very pleased with the kit and with the results of this winter scheme experiment.

Special thanks to Brian Cahill for his assistance in the preparation of this article.

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**Polar Lights Robot**

from page 13

The power pack is a minor nit. It is too thick and the details molded onto it are wrong. Scratchbuild a better one.

The only other problem with the upper body is the set of four clear 'body grille' panels. For starters, the side and rear grilles are too narrow. The kit has them the same as the front. The front is almost correct (it should be the same width as the control panel), but the side and rear openings need to be about 1/4" wider. The clear parts also sit too far back in recesses of part #23, leaving a noticeable gap on either side. Widen the openings and scratch build replacements for the too-narrow clear grilles from clear resin, using the original for a mold pattern.

The horizontal plates at the Robot's 'knees' and 'ankles' should have scribed center lines hinting that they do separate. Also there should be a small door scribed in the front of the right 'foot' which was seen in the early shows as covering some sort of soil sampler. The curious part about this error is that it was on the original Aurora model and is even shown in the instruction diagram and photo. It is easy enough to fix, but a little puzzling. The final inaccuracy is the treads. The raised ribbing is very poorly molded and doesn't meet in the middle. The good news is that those

raised ribs aren't even supposed to be there. They should be engraved. Start sanding and scribing.

Well, there you have it. The ultimate word in accuracy for the old 'bubble-headed booby'.

## In-Box Review: Zvezda 1/72 Sukhoi Su-25

By Guy Holroyd, RMS

I just received a shipment of these beauties from my Russian pals. This kit will eventually appear in the Italeri range later in the year. Molded in dark grey plastic. The kit features beautifully engraved panel lines (much more delicate than the Ka-29), a clear two-piece canopy, optional position wing-tip airbrakes and access ladder, the extra scabbed-on Chaff/flare dispensers (introduced by the VVS after some unfortunate encounters with Stingers in Afghanistan) and a full weapons load. The kit matches the dimensional plans of both the Czech 4+ Su-25 book and Mir Aviatsiyii and, according to the 4+ plans, corresponds to a fifth series production aircraft. The decal sheet is not produced by Travers (as is usual with Zvezda kits), rather it appears to have been produced in Ukraine by either Kanga or Fresco. It features a VVS Afghan War vet, a shark-mouthed machine based in the GDR in the early 90's and the notorious pin-up adorned sharkmouth 'Anca' of the old Czechoslovak AF. More decal sheets are on the way from Russia for this kit.

Overall the impression is of a very high standard kit. The detail Zvezda has achieved surpasses Italeri's old Czech cohorts Bilek, and is the best yet from Zvezda. It knocks spots off the old KP offering in virtually every respect. The only criticism I would level is that the 'Odd Rods' antennae are way too thick. Obviously this can be easily rectified (The East German-based machine would be a late model with blade antenna instead of 'Odd Rods' anyway). Let's just hope it goes together as easily as it promises.

## Web Sites of the Month

Aircraft and armor modelers often forget that there are other types of models being made by modelers just as devoted to their passions as they are. One group of modelers who has been especially active lately is those devoted to making race cars. The turn-out at the IPMS Seattle Spring Meet in the Competition Automobile categories was excellent; the Closed Circuit Racer category had to be split three ways to accomodate all the entries. Many racing organizations and car manufacturers have their own web sites. Here are a few that feature helpful info for modelers.

Before I get accused of being a Eurosnob, I want to make it clear that although Formula One is my personal passion, I've watched every lap of every CART race and NASCAR Winston Cup race this decade. In fact with the exception of the pathetic Indy Racing League, a bunch of third-rate drivers in second-rate cars that has devalued the hallowed name of the Indy 500, every major racing series has something to recommend it.

### NASCAR Online

[www.nascar.com](http://www.nascar.com)

NASCAR's official web site is very much like NASCAR itself, de-emphasizing the cars while concentrating on the drivers. Most of the info available pertains to the drivers; you can find out what airplanes Rusty

Wallace owns or what Dale Earnhardt's favorite rock group is (Van Halen; sorta figures), but good shots of the cars that would help model builders are few and far between. There is a section with galleries from each of this season's races, but they are neither indexed or thumbnailed, making the galleries' usefulness very much a hit or miss affair. There are links to each team's web sites, when they have them. Good for general info, and well laid out, but not of much help to modelers.

### CART Online

[www.cart.com](http://www.cart.com)

The CART FedEx Champ Car series (which used to be IndyCar before the split with the IRL) has very nice web site that includes color photos of each car in the series, in addition to links for most of the teams and drivers. The PacWest and Target Chip Ganassi sites, for example, contain many high resolution shots of the cars. Now can anyone tell me if someone makes kits of current CART cars...

### F1PictureNet

[www.f1picturenet.com/](http://www.f1picturenet.com/)

F1Picturenet has some spectacular pictures of Formula One cars, both at speed and sitting in the paddock. Of course F1 cars look like they're at speed

while sitting in the paddock...

F1PictureNet is trying to sell you pictures, but their free library is of high quality, and contains shots of almost every current team's cars. Well worth checking out.

### Highway Formula 1

[transcentral.student.utwente.nl/formula1/](http://transcentral.student.utwente.nl/formula1/)

The ultimate F1 links page; almost 300 links about the sport. The place to start.

**F1 Teams' Official Pages** - (most are self-explanatory)

[www.arrows.com](http://www.arrows.com)

[www.mclaren.co.uk](http://www.mclaren.co.uk)

[www.jtnet.ad.jp](http://www.jtnet.ad.jp) (Benetton)

[www.minardi.it](http://www.minardi.it)

[www.ferrari.it](http://www.ferrari.it)

[www.shell-ferrari.com](http://www.shell-ferrari.com) (Ferrari, again)

[www.jordangp.com](http://www.jordangp.com)

[www.sauber.ch](http://www.sauber.ch)

[www.tyrrellf1.com](http://www.tyrrellf1.com)

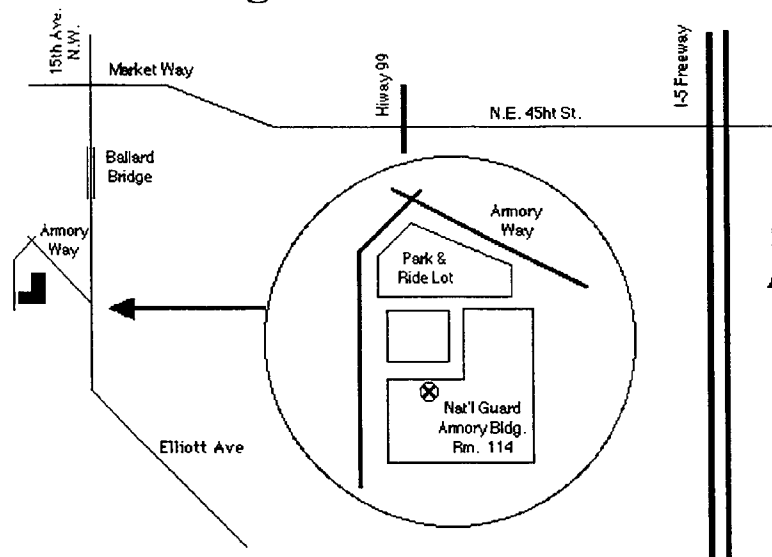
[www.prost-peugeot.com](http://www.prost-peugeot.com)

[www.gauloises.com](http://www.gauloises.com) (Prost, again)

[www.mciracing.com/stewart/index.html](http://www.mciracing.com/stewart/index.html) (Stewart)

F1 teams love to show off their cars; most of these have great photo galleries, especially the Jordan, Tyrrell, Benetton, and both Prost sites. Arrows' is a bit dull, apt for a team that's never won a race in 20 years. But where's Williams?

## Meeting Reminder:



## Saturday, July 18, 1998

**10:00 am**

National Guard Armory, Room 114  
1601 West Armory Way, Seattle

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

If coming from the South, take Highway 99 onto the Alaskan Way viaduct to Western Avenue. Follow Western Ave. north to Elliot Ave. until it turns into 15th Ave N.W., then to Armory Way itself.