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2009 Sampler

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By For Modellers

The quarterly journal of the
International Plastic Modellers Society of Canada

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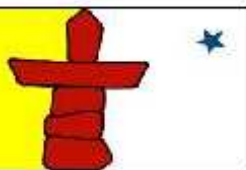
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Notice to Readers

If you are interested, the articles seen here may still be available in their original format as a back issue of **RT**. However, please note that very few extra issues are ordered just to become 'stock on the shelf', waiting for someone to order them someday. (We're trying not to be in the back issue business)

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IPMS Canada members are advised to ensure that their membership is renewed as early as possible in the production and renewal cycle, in order to maintain their 'active member' status, and not miss out on a single issue of **RT**!

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Editorial

Welcome! You're looking a special 'Sampler' edition of **RT** – Random Thoughts, the official journal of IPMS Canada. The idea for this came about as a way of introducing, or re-introducing modellers to IPMS Canada, while members of the IPMS Canada National Executive attended the IPMS/USA 2009 National Convention in Columbus, Ohio.

This is a screen-resolution PDF file, which means it should look very nice on your computer monitor, but the imagery will look degraded if printed out on paper. Rest assured that **RT** is printed on high-quality stock, with imagery and graphics rendered at 300 DPI.

This sampler contains a selection of articles that have appeared in **RT** in 2009. We've tried to show you what you can expect to see in **RT** with an IPMS Canada membership. Fortunately, with many good articles to choose from, it was very tough for me to decide which articles to include here and which ones would not be showcased in this special **RT**. A normal issue of **RT** consists of 36 pages, containing 10 to 12 articles. Most of these articles are written by IPMS Canada members, and the contents of **RT** reflects the interests of the membership.

We hope you enjoy the following selection of **RT** articles and consider joining IPMS Canada!

Cheers,


Steve Sauvé
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IPMS Canada

Building the Czech Czech Model 1/48 Messerschmitt Me 309

By Randy Lutz
IPMS Canada C#4650
Ottawa, Ontario

-  Czech Model
- Injection Molded
- Limited Run
- Vacu-formed Canopy
- Decals For 2 Versions
- Resin Parts By True Details
 - Detailed Cockpit
 - Wheels
 - Wheel Wells



GE+CU, the later Me 309 V1 variant, flown by Test Pilot Karl Baur, at Lechfeld, Germany, in August of 1942.

Background

Messerschmitt began work on an advanced single-seat Me 309 fighter for the Luftwaffe in late 1940. Combat experience with Messerschmitt's earlier Bf 109 fighter - which called for higher speeds, greater range, and heavier armament - was incorporated into this new design. This design also incorporated several advanced features, including a tricycle landing gear, a retractable radiator, a pressurized cabin, and ejection seat. Ten prototype aircraft were ordered from Messerschmitt in 1941.

Construction of the Me 309V1 (WNR (Factory Number) 001, fuselage code GE+CU) began in late 1941 and was completed in June of 1942. The aircraft was powered by a 1750 horsepower (HP) Daimler-Benz DB 603A-1 12-cylinder,

liquid-cooled, inline engine turning a three-bladed, variable pitch metal propeller. Taxi trials conducted in June and July of 1942 revealed a tendency for the Me 309's nose wheel to shimmy (move side-to-side). After modifications to the nose wheel, Messerschmitt test pilot Karl Baur made the Me 309V1's maiden flight from Augsburg, Germany on 18 July 1942.

High-speed level fights demonstrated the Me 309V1's directional instability, which resulted in enlarged vertical tail surfaces being fitted to the aircraft. Four different vertical tails were installed on Me 309s, yet handling problems persisted throughout its career. The fighter was also retrofitted with the 1475 HP DB 605 inline engine, which was installed on the subsequent Me 309 prototypes. An RLM pilot flew the Me 309V1 in a mock dogfight against a Bf 109G on 22 November 1942. This exercise showed that the Bf 109G could outmanoeuvre the Me 309, which had only a 30 MPH (48.3 KMH) faster speed than the older

Messerschmitt fighter. The Me 309's maximum speed of 360 MPH (579.3 KMH) was also 66 MPH (106.2 KMH) slower than the Focke-Wulf Fw 190D, which was under development in late 1942.

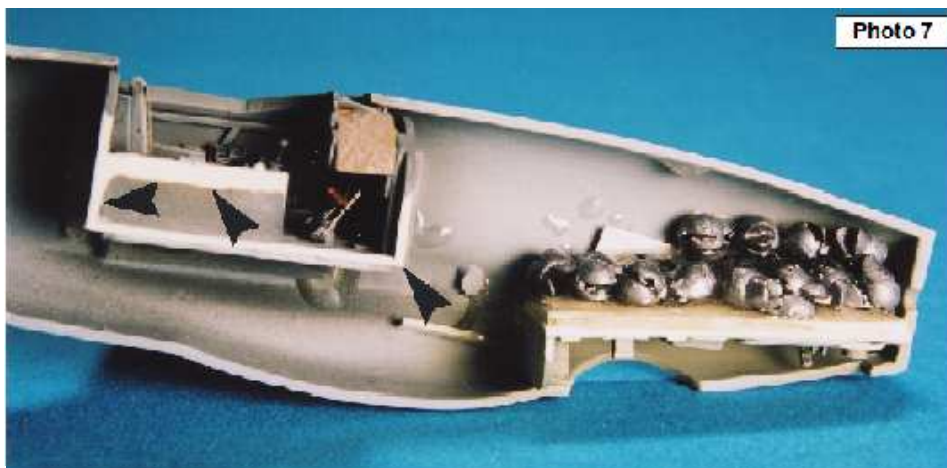
Four Me 309 prototype were built by Messerschmitt; the RLM cancelled the six other examples on order. The RLM cancelled the Me 309 project in 1943, due to the fighter's lacklustre performance and technical difficulties.

The Kit

I think it is beneficial as a modeller to stretch one's self occasionally and try building something other than the oft-quoted Tamiya or Hasegawa 'shake and bake' kits. Truth be told, I find the term 'shake and bake' to be insulting of a modeller's abilities, as it implies that no skill is required to build the model. Well, I can tell you that I have seen many of these supposed 'shake and bake' kits that looked like crap once finished. But, we will save this discussion for another day.

This model was my first foray into the Czech Model line of kits and I must say that I was pleasantly surprised with the overall quality and detail of the kit. It has a few little areas that require special attention and a few areas that I feel are incorrect, but none of these issues should deter you from tackling this kit.

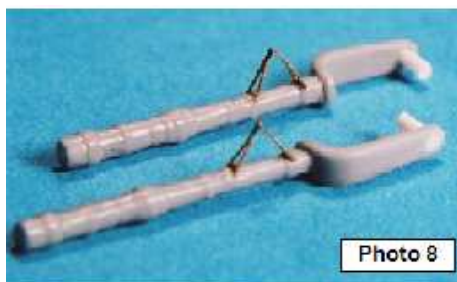
Call me crazy, but the packaging of the simple black and white artwork with red accents as seen in the header of this article really appeals to me. Inside this subdued box are 34 injection moulded parts on two sprues (**Photo 1**), a small



was fastened in place after first sanding down the edges slightly to allow the fuselage halves to meet. In **Photo 7**, arrows point to the areas where I needed to sand the edges of the tub. In **Photo 7**, you will also notice that the nose gear well is installed as per the scribed line on the inside of the fuselage and lead fishing sinkers have been epoxied in place to keep the nose gear on the ground. I had a real strong bond, but unfortunately, the wheel well was in the wrong place. If installed where Czech Model suggests, the propeller will hit the nose gear on the completed model. I had to break the epoxy bond and shift the resin wheel well back about 3/16". The only good thing about this is that I discovered it before the fuselage halves were glued together.

✚ Landing Gear & Wheel Wells

I was now at what proved to be the worst part of the kit, which were the main landing gear legs. I found the mouldings to be somewhat undefined, which made

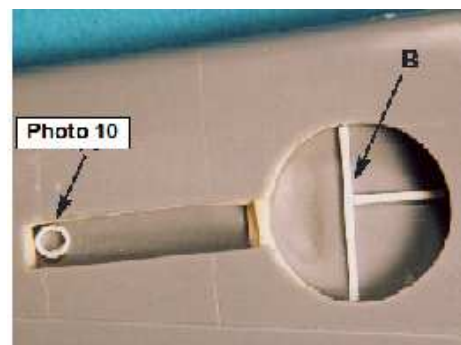
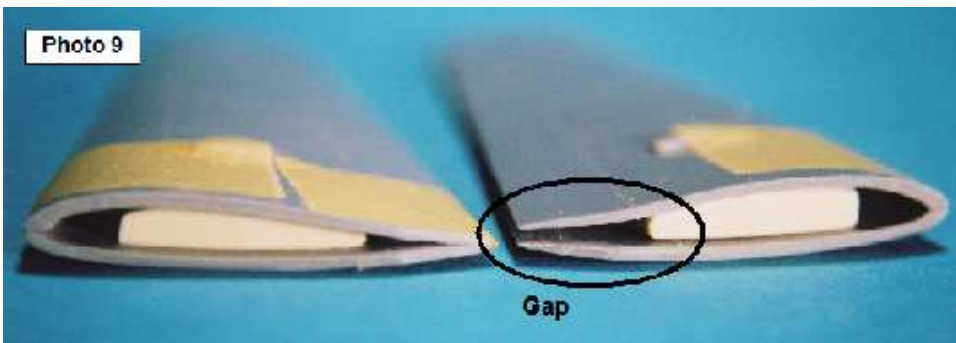


clean up a chore. Also, both of my resin oleo torque links were broken beyond recognition. I replaced the links with some spare photo-etched parts and I fabricated the axles for mounting the wheels from some Evergreen rod. The main gear legs are shown in **Photo 8**. The gear retraction arms were detailed with some bolt heads made using my Waldron Punch and Die and glued to the

main gear legs. I airbrushed Tamiya TS-14 Gloss Black on the oleo strut section of all the gear legs and once dry this was followed by a few light coats of Alclad II Chrome. I then masked off the oleos and proceeded to airbrush the gear legs with RLM 02, followed by a dark wash and then lightened RLM 02 dry brushing.

When I attempted to install the resin wheel wells in the wings, it became quite obvious that they would not fit without considerable sanding to reduce their thickness. In **Photo 9**, you can clearly see how much resin needs to be removed to allow the upper and lower halves of the wings to meet. With wings assembled,

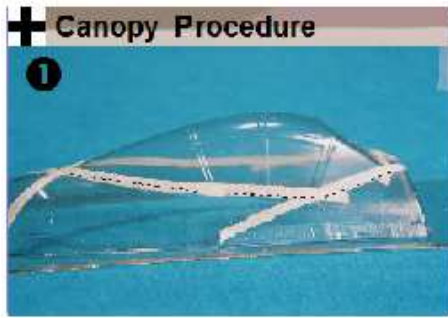
I had two more steps to complete, one of which was optional and one mandatory. The mandatory step was to glue in place a short section of plastic tube that was of the same inside diameter as the attachment points on the landing gear legs. I found this necessary, as there is no positive method of fastening the gear legs otherwise. This tubing mount is identified as arrow 'A' in **Photo 10**. The optional step is to install some styrene strip to represent the wing structural



detail that would be visible in the wheel well as seen at arrow 'B' in **Photo 10**. And finally, there is a panel line missing from the bottom of the port wing.

Once these details are taken care of the airframe can be assembled and as can be seen in **Photo 11**, virtually no putty is required, if you pay attention to the treatment of the mating surfaces and alignment of the sub-assemblies. There are small mounting stubs for the tail planes and the fact that the main wings are merely a butt joint did not present any problems. The only problem I encountered with the assembly of the airframe was the fact that some of the panel lines did not match from one fuselage half to the next. This necessitated filling in some panel lines and rescribing new ones, but again it was not a big deal.





but in this case, I had no alternative. However, I am pleased to report that this was a canopy that actually fit the model. I think the biggest hurdle when working with a vac canopy is cutting them out properly. I know we all have our own techniques, or preferred method for removing them, but I will tell you how I do it. (see the photo sequence at the top of this page. Ed.) First, I outline, or define the outer edge of the canopy frame with thin strips of masking tape as can be seen in ①. It is far easier to cut along a line if you can clearly distinguish between the canopy and the excess plastic. The black dotted line illustrates where I make my cuts using a small pair of scissors. Once cut out, I will sand the edges to shape the canopy so that it matches the contours of the fuselage. It is then glued in place with small drops of superglue. Next, I apply pieces of photographic splicing, or leader tape to cover the clear areas of the canopy. This is then followed by an application of Tamiya putty to blend in the canopy. I can then start to sand the seam as seen in ②. The green splicing tape is waterproof and thick enough that it protects the clear areas while I do all the bodywork. Once I am happy with the canopy, it along with the cockpit opening is masked off with Tamiya tape in preparation for the painting. (The final result can be seen in ③. Ed.)

+ Painting

Painting was next and for this I airbrushed Xtracolor RLM 74 Graugrun and RLM 75 Grauviolett over RLM 76 Lichtblau, followed by a very soft and diffused mottle of RLM 02, 70 and 74. If I may stand on my soapbox for a moment, almost all models I have seen finished in the mid-war grey splinter scheme are incorrectly painted, in as much as the modeller has taken to heart the term 'splinter' and applied the RLM 74/75 with a hard edge. In reality, the demarcation between the colours should be soft edged. On pre-war aircraft, a true hard edge splinter pattern was in use, with straight hard-edged demarcations. This was in effect until 1939 when the



camouflage started to change. From 1939 onwards, fighters employed soft-edged camouflage patterns, even if they



fuselage crosses and are therefore incorrect, as they should have the reduced white areas. I base this on the



were still called splinter. For the most part, bombers finished in RLM 70/71/65, and marine aircraft using RLM 72/73/65, were finished using the hard edge camouflage to the end of the war, with a few exceptions appearing on some late war bomber and maritime schemes.

good quality photo of the Me 309, which is taken from the right rear where you can see the upper surface of the wing. While I cannot state with 100% certainty, I feel the fuselage crosses are a little oversize,

+ Decals and Weathering

The decals were next to go on and while they were well printed and in perfect register, there were some errors. The upper wing crosses as supplied for the V1 aircraft are identical to the



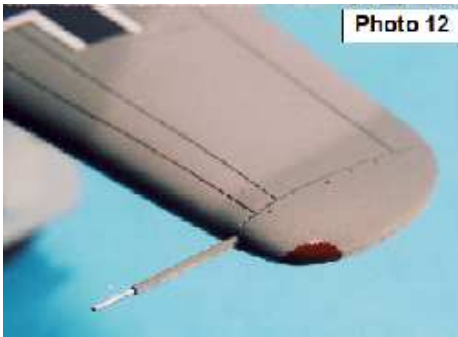


Photo 12

but usable as they are. Once the decals set up, a medium grey wash was applied to the panel lines and then I applied trace amounts of silver paint to represent small chips, respecting the fact that this was a prototype aircraft and would not have been subject to the same wear and abuse as a front line fighter. This was all



Photo 13

followed by a few applications of Testors Dullcote to achieve the desired sheen.

Czech Model does not indicate where the wingtip navigation lights should be situated, so I surmised that they would be similar to those found on a late model Bf 109 and masked off the areas where they would be. Then they were airbrushed with Humbrol Crimson and Xtracolor X320 Air Canada Teal (Photo 12). Also shown in this photo is the pitot tube made from two pieces of hypodermic needles. You will notice in some references that drawings show the pitot tube mounted further inboard, but this is incorrect. The Me 309, like the 109, 110 and 262 had deployable leading edge slats that made it necessary to mount the pitot outboard of the slats. Landing gear position indicators were fashioned from piano wire, painted red and glued to the wings (Photo 13), the exhausts were airbrushed with Metalizer Burnt Iron and Burnt Metal and then



slipped into position from the outside while the hinged portion of the canopy was tacked in place with a few drops of super glue. All that remained was to apply some chalk pastel weathering and the model was finished. The remaining photos provide an overview of the completed model.

historical narrative from the kit's instruction sheet.

+ References

Not much, aside from a few photos on the Internet and a photo in the Monogram Official Monogram Painting Guide to German Aircraft 1935-1945.



+ Conclusion

This proved to be one of the most enjoyable kits I have built. There were a few minor nit-picks, but in the grand scheme of things, none of them was serious. Depending on the angle viewed, it either looks like an elegant racer, or it looks rather ungainly. But, no matter how you look at it, it is a good model of an interesting subject. Is it 100% dimensionally correct? I don't know and I don't care. I do not have plans to compare it to and if I did, I would be foolish to blindly assume the plans would be correct. All I know is it looks very much like the photos of the real thing.

+ Acknowledgement

I would like to thank Squadron/MMD for allowing me to draw on the Me 309



About the author:

Randy Lutz was born in Kingston and raised in the Ottawa area. He has been employed for 32 years by the Federal Government. Modelling since childhood, with a few breaks along the way, his main area of interest is 1/48 WWII aircraft, with strong emphasis on small air force and foreign markings. Randy has been a member of IPMS Canada since the early 1990's and a member of the National Executive since 1996.



**By Gary Barling, C #0014
IPMS Ottawa**

INTRODUCTION

When most people visualize a Civil War cannon, they usually think of the 'Napoleon'. Little wonder that they do, as it was the most well known field artillery piece of the War Between the States. Named in honour of Emperor Napoleon III by its designers, who created it in the 1850's in France, the Napoleon cannon was a bronze, smoothbore weapon. Emperor Napoleon III ordered its design and construction so that the ordnance of the French army might be standardized to simplify the production, supply, and distribution of cannons, carriages, implements, and ammunition.

Often referred to as the workhorse of Civil War artillery, the Napoleon was manufactured and used extensively by both sides. By July 1863, in the Virginia Theatre of Operations, the Napoleon comprised about 39% of all artillery armament for both the Union Army of the Potomac and the Confederate Army of Northern Virginia.

The Napoleon had the best features of the extant smoothbores of the day. It was a reasonably manoeuvrable piece, sturdy and durable. The Napoleon light 12-pounder had a relatively high degree of effectiveness at ranges up to 1700 yards, which made it a great overall artillery weapon. The Napoleon so impressed a three-man American military commission that toured Europe in 1855 and 1856 that they recommended it for American use. Within a year, it was made an official part of American ordnance (Photo 1).

Napoleons were produced by both Confederate and Federal arsenals. Federal arsenals produced almost 1200 Napoleon light 12-pounders during the War, while Confederate arsenals were able only to produce between 500 and 600 Napoleons of slightly different appearance.

THE KIT

The Verlinden 120 mm resin kit (#1234) is currently listed as available through the Verlinden website for about USD \$60.00. The barrel, gun carriage, ammunition types and some parts of the accoutrements are separate

pieces, while the remaining parts are offered in a resin sheet, from which they are to be cut and/or sanded. Wire and cording are provided, from which metal gun fittings and rope 'prolonges' are fashioned by the modeller. Additional parts, such as the implement rods, are to be provided by the builder. My kit did not have the instruction sheet. A call to the merchant resulted in a faxed version that was not the best, but which provided enough guidance to proceed. The overall quality of the kit is very good, with problem areas discussed in the pertinent sections below. I'll deal with the barrel, gun carriage, implements and painting separately.

THE BARREL

The barrel provided is the Union standard barrel with the characteristic 'swell', or bulge, at the muzzle. The overall shape and dimensions are very good, but my barrel suffered from some miscasting: there were several significantly pitted areas that required filling and sanding. Photo 2 shows a completed model without the required barrel repairs, and I thank the modeller who built it for permission to use this image in my article.

'Napoleon' 12-Pounder Specifications	
Bore Diameter	4.62"
Material	Bronze
Length of Tube	66"
Weight of Tube	1227 lbs
Powder Charge	2.5 lbs
Ammunition	Solid Shot, Shell, Spherical Case, Canister
Rate of Fire	2 rounds/minute (4 RPM for Canister in emergency)
Range at 5° Elevation	1619 yards



Photo 1



Photo 2

40 per cent lacquer thinner, followed by a polishing with MicroMesh 4000 and 8000 grit prepared the barrel for its painting and weathering (**Photo 3**). A touchhole, representing the point where the friction primer was fitted for firing, was drilled into top-dead-center at the rear of the tube.

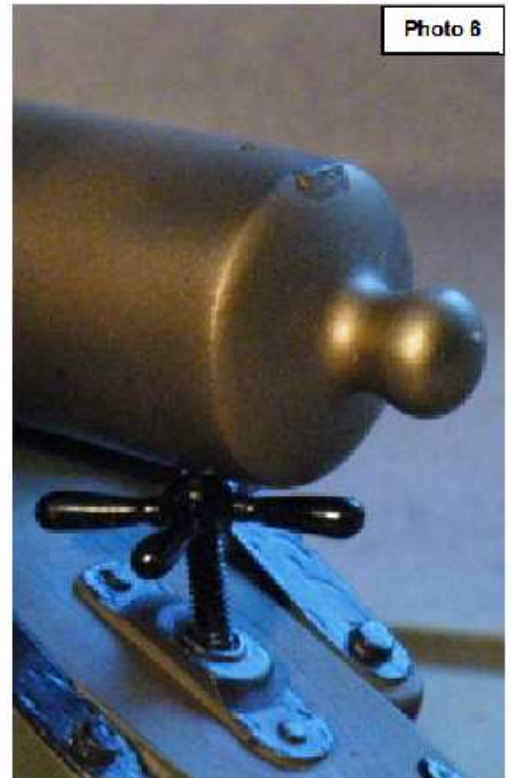


Photo 6



Photo 3

Another galling feature of the barrel is that it does not provide any idea of how the gun was aimed. In fact, two additions have to be made. The first, easily done, is to add a foresight. This is simply a pointed rod fitted to the barrel just above the muzzle. I drilled a hole, snipped off the end of a pin, and glued it in place with a touch of



Photo 7

Accordingly, be prepared for some barrel repairs: the barrel of the original gun was cast in bronze, and so displayed a very smooth surface. Hence, particular care should be given to the finishing of the barrel, as any fault will detract from the overall look of the model. I used Mr. Surfacer 500 and 1000 to fill and finish the barrel. In retrospect I might have had an easier time of it had I used Milliput for the filling portion of the repairs. A final application of Mr. Surfacer 1200 thinned with

CA glue (**Photo 4**). The second is a bit more labour-intensive. Napoleons from four of the five foundries producing them had small flattened 'pads' moulded in to the upper and lower end of the tube (**Photo 5**). The top pad is termed a "hausse seat," for the attachment of a pendulum hausse bracket. This is

essentially a removable gunsight: you placed the bracket on the upper pad, sighted the gun using both bracket and foresight, and then removed the bracket before you fired the gun. The bottom pad was a type of 'base plate' on which the elevating screw rested. Napoleons from the Henry N. Hooper foundry were made with only the top pad for the sight bracket. No fool I, my model is a Hooper Napoleon: one pad only (**Photo 6**)! To make the pad, I taped off the area of the pad, lightly

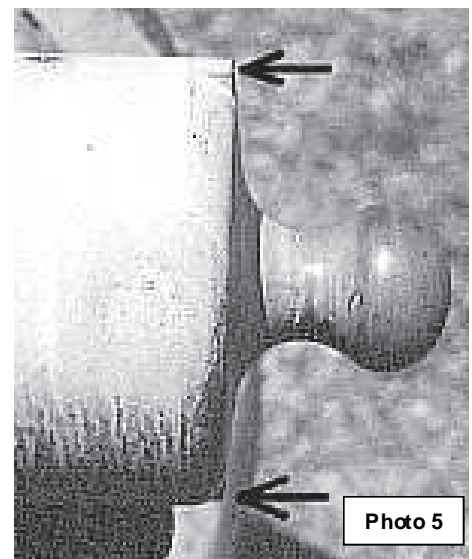


Photo 5

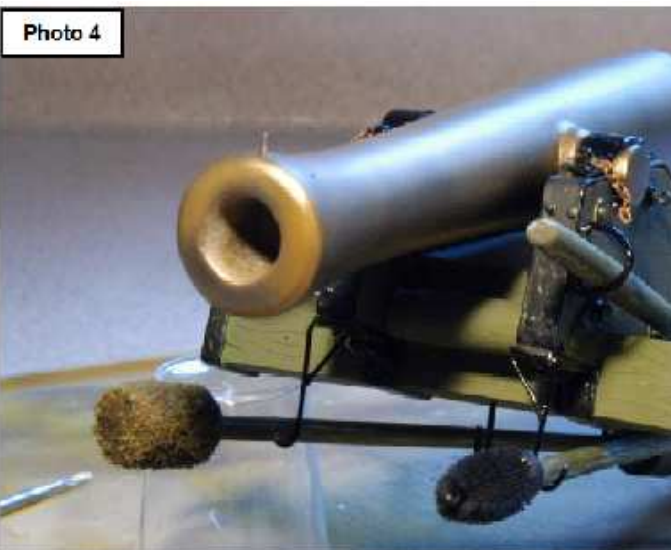


Photo 4

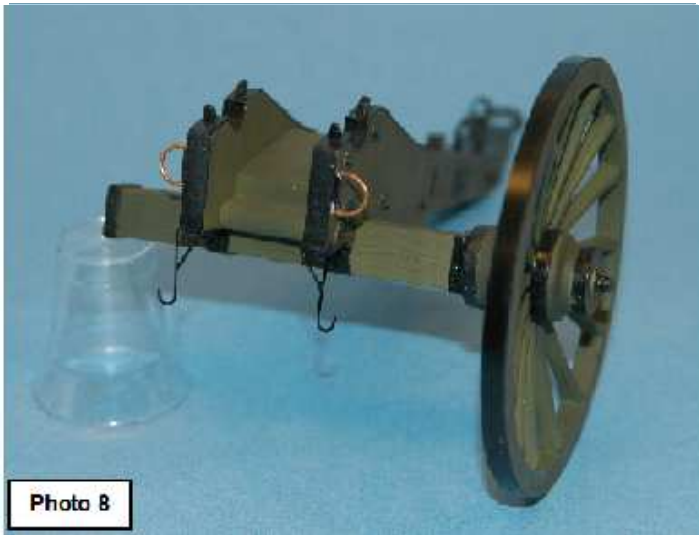


Photo 8

GUN CARRIAGE

I'm not an expert on these weapons, so I don't currently know for sure if Verlinden has provided a specific gun carriage or a generic version that might 'look good' but is not entirely accurate. However, I do know the campaign and battle of Gettysburg, and I've guided several battlefield tours there (warning: never get me started on that topic or I'll talk about it 'til your eyes glaze over). In the Gettysburg Visitor's Center museum, there is an original Napoleon, complete with all of the implements (Photo 7). Accordingly, I used

form of a 'hook', in which the rod rests, but can also be a 'loop' through which a rod is run before tightening up the implement straps at the rear of the carriage. I opted for the two hooks illustrated in the directions (Photo 8). These are formed from wire included in the kit, bent to match drawn templates.

Water is a vital part of the gun equipment. Once fired, the barrel is swabbed out with a damp wool-covered sponge to extinguish any remaining burning embers. You can imagine the effect of ramming 2.5 pounds of black powder down the barrel and letting it come into contact with the burning remnants of the previous charge. More than a few gunners lost hands, arms and lives as a result. Accordingly, a water bucket is carried under the carriage on a hook. Again, the hook is made from a piece of kit wire bent to a template. However, I found that the template was a bit too long: the bucket rested too close to the ground when looped into place. Easy

scratched the surface with the end of a #11 blade, and then applied a small quantity of Two-part epoxy Milliput. I moulded the Milliput with a small spatula and a bit of water, and then let it set up for a day. When cured, I lightly sanded the Milliput into the final shape: a small platform just to the rear of the touch hole.

is an original Napoleon, complete with all of the implements (Photo 7). Accordingly, I used



Photo 9



Photo 10

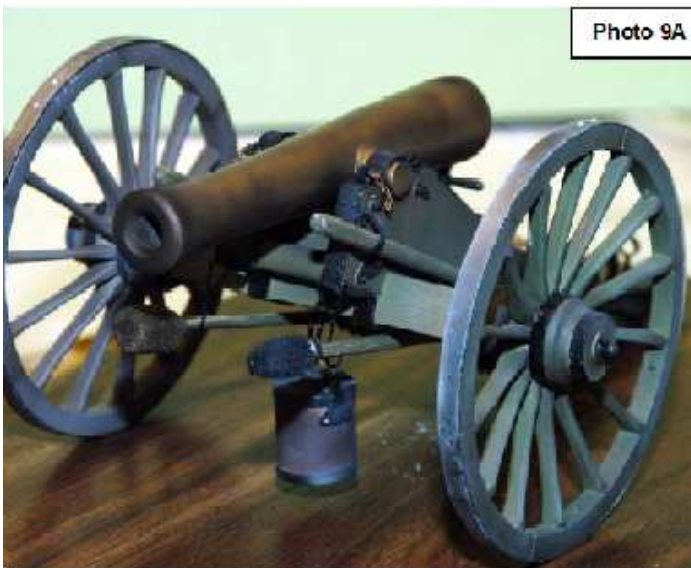


Photo 9A

this gun as the basis for my construction. The changes are minor, and easily within the abilities of the average modeller. All you really need is time, patience, and a supply of wire! Let's start at the front and work our way back.

The kit provides you with three implements that have to be fitted onto two wooden rods (we'll talk about their construction below). They are carried slung under the gun carriage, supported at the front of the gun by iron fittings. These usually take the

fix: cut off the hook, shorten the shank and the barb of the hook, and re-attach.

The bucket itself needed a bit of work. To suspend the bucket on the hook, two short pieces of chain were used. A larger iron ring, the part that actually fitted over the hook, joined these to each other (Photo 9). I used the small chain that came with the kit, cutting two short pieces and attaching them to either attachment point on the bucket with thin wire from my own supply. Then I made the iron ring from slightly thicker wire, painted it black, and fitted each of the chains to it.

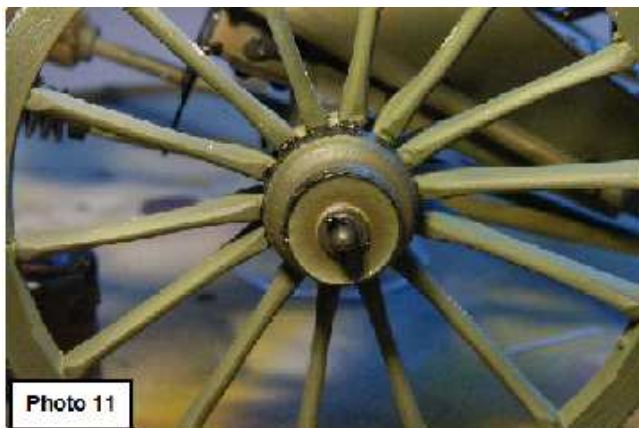
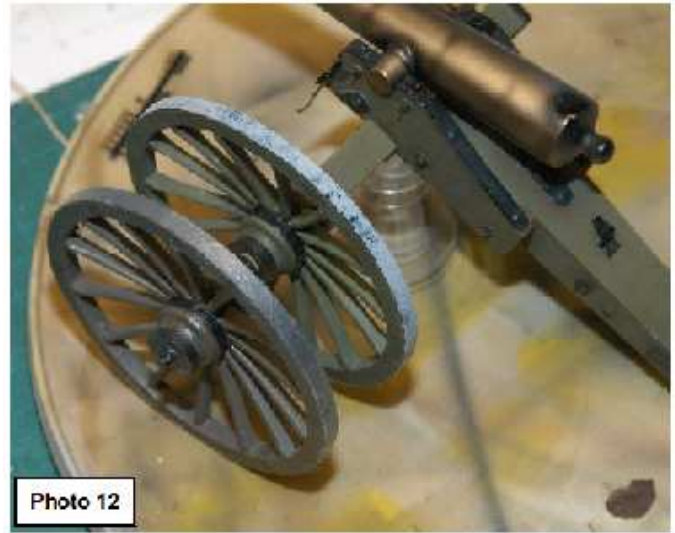
The barrel was fitted with two trunnions, circular stubs that fitted into semi-circular recesses on the top of the gun carriage. When in location, the trunnions were held in place by two iron fittings, each of which in turn were held in place by a locking pin. The pin, in turn, was attached to the carriage by a small length of chain. I made the pin with the ubiquitous wire, attached a small length of kit

chain to one end, drilled a receiving hole in the carriage lock bolt, used a touch of CA glue to join the chain to the carriage, and slipped the locking pin in place.

The Napoleon came with two handspikes, about 4 1/2 feet long. I manufactured these from lengths of wooden shish kebob spears, sanding them smooth and reducing the diameter a little, as I neared the end of the handspikes. These were used by fitting them into the rear of the carriage (called the 'trail') and used to manhandle the gun left and right to engage a target. The handspikes were carried on either side of the barrel, mounted on the forward part of the carriage, using two fittings: a 'D' ring at the extreme forward edge of the carriage; and an 'O' ring further back. You are expected to form the forward 'D' ring from supplied wire. The instructions tell you to fit a 'J' hook to the rear, into which the other end of the handspike fits. However, the

thin strips of electrician's tape for the straps: black, self-adhesive, flexible...what more could I want? I just applied the tape to the implement, and then CA'd the end up against the moulded fitting.

The gun carried a rope, called a 'prolonge', on the top of the trail. The prolonge was used to move the gun and, if necessary, recover it in retreat without the use of the gun's team of horses. The kit provides the prolonge, and it is a simple matter of wrapping it around the two iron fittings on the trail. I added an iron



ring to the prolonge, and soaked it in cold tea overnight, then darkened it with Weatherall, to provide suitable weathering.

The carriage also carried two sets of chains, one on either side. I believe that these were called 'locking chains', and were used to fit through the spokes on each wheel to 'lock' them and prevent the gun from rolling downhill. The chain provided in the kit is the right size for the bucket and various locking pins, but it is too small for a locking chain. A trip to a costume jewellery store found

kebob spears for my rods due to their realistic wooden appearance. Two of the provided items go on either end of the same rod: the rammer (short, cylindrical part) and the sponge (longer, roughened cylindrical part). I think that the sponge is too long, and so I sawed off about 1/4". I also found that all of the implements are too big to fit into the muzzle, so the rammer and sponge were sanded down to a smaller diameter of about 6mm. I glued coarsely powdered railroad-landscaping material onto the sponge head to give the roughened surface of the original (Photo 9A).

The other implement featured a bore brush on one end (not supplied) and a 'worm,' which is to be fashioned from the ever-present wire. I cast about to find a suitable brush, finally settling on (believe it or not) a good-sized mascara brush from the local drug store's cosmetic section! The worm was a

Gettysburg Napoleon has the rear of the handspike attached by a short chain, while others feature a rear-mounted 'O' ring. This is the option I used. I drilled a hole into the moulded-in fittings, and then inserted a Grand Line eyebolt. Using thin wire, I formed rings around a suitable dowel. Opening the rings slightly, I fitted them into the eyebolts, then closed them up and gave them a coat of black paint (Photo 9).

Elevation and depression of the gun barrel was done using a simple screw device fitted into the trail of the carriage under the rear of the barrel: screw goes up, muzzle goes down, and vice versa. The kit provides the screw and four extension handles use to operate the item. The problem here was that the hole for the screw was cast vertically in relation to the trail, when it should have been cast perpendicular to the ground and to the axis of the barrel, as it was positioned to fire. This calls for re-drilling or grinding out the hole in order to get the screw seated vertically to ground level (Photo 6).

Moving to the rear of the trail, the kit requires two more 'J' hooks to be fitted. These are for mounting the other end of the implements mentioned above. However, the Gettysburg gun clearly shows that these ends of the implements were strapped to the trail rather than being carried loosely in 'J' hooks. I used

trip to a costume jewellery store found



suitable chains, which were painted black and fitted into place (Photo 10).

IMPLEMENTS

You are provided with three items that are to be fitted onto the ends of two wooden rods (length unspecified). In the event, my two implements came out to an overall length of 4 1/2 inches. I used lengths of wooden shish

corkscrewed length of metal used to recover powder charges in the gun barrel...gently. The instructions would have you wrap wire around a dowel, then glue it into place on your stove. Not quite. You do have to wrap the wire three or four times, but then the end of the worm that fits into the rod must be bent into the center of the circular corkscrew, then bent away from the corkscrew at ninety degrees, and then fitted to the rod. The reason is that, if

not done, the axis of the worm will be offset from the axis of the rod: you're trying to get the worm 'centered' on the long axis of the rod.

WHEELS

The wheels are the most difficult part of this build, not because of what you get in the kit, but because of the design of the actual wheel itself. As one of my references states, *"The wheel was a very subtle design. The fourteen spokes are dished slightly inward to make the wheels more springy on rough ground, and the ends of the axle are tapered downward to correct for this angle, so that the base of the iron-tired wheel is horizontal to the ground. This improves cornering, and also has the effect of throwing mud outward and away from men and horses following the gun."*

The problem thus comes in two phases: setting up the inward 'dishing:' and determining how to set the angle between each of the spokes. First, the angle. With 360 degrees in a circle, and fourteen spokes, simple math gives us $360/14 = 25.7$ degrees between spokes (and please don't ask why fourteen spokes!). I then held the circular wheel part in place on a piece of card, and drew a circumference around its inside surface. Using a compass and straight edge, I then found the center of this circle. Finally, using a protractor, I marked off sixteen 26-degree radii from the center to the edge of the circle. This became the template to position the spokes. And no, I didn't really worry about the .3-degree variance! With the template, I then marked off the points of contact that the spokes would make with the inside surface of the wheel (Photo 11).

The original wheels were fitted with iron 'tires.' These were heated up, tightly fitted to the wooden wheel, and allowed to cool. This shrunk the tire, which had the effect of compressing the wooden wheel and forcing the spokes into both the wheel and hub. The kit gives you two strips of styrene for the tires. These then have to be fitted to the wheels. I used CA glue, tacking one end to the wheel and then running the strip around the wheel, tacking it as I proceeded. The strips are longer than required, to allow for final fitting, and slightly wider than required, necessitating a final trim to shape. With the end trimmed and fitted flush with the start point, I ran a small bead of CA along both sides of the tire around the entire circumference. Small Grandt Line rivets were fitted to each end of the 'iron' strip to represent the attachment points to the wheels.

Now, the effect on the tires of trundling a ton or so of barrel and carriage over weeks and months of heavy usage is fairly obvious. The load-bearing surface gets pretty beaten up over time. I used Mr. Surfacer 1000 for the effect. I dabbed it onto a piece of pipe insulation (any rough surface will do as an applicator) and then dabbed the MS onto the tire. This was built up over two or three thin applications until a suitable roughened surface was obtained. Xtracolor Gunmetal

was airbrushed over the surface to replicate heavily used iron tires (Photo 12).

AMMUNITION

Eight rounds of ammunition are provided, four spherical case and four canister. I painted the metal portions using Alclad II Steel, and finished the cartridge bagging with a light beige linen colour. There is a wooden sabot between the cartridge bag and the tin canister container: this was painted a gloss mid-brown, and then fitted with woodgrain decals from Spada and Dullcoted. Further detailing was with lead and coloured pencil for the cording and shading (Photo 13).

THE BASE

I used a standard wooden base from a local trophy shop. However, I had read of a particular railroad scenic material that provided a very good 'grass' surface. This is from Busch of Germany, and is coded HO 7211 Grass Matting Dark Green. It comes in two other shades besides the one I used (Light Green and Corn Field), and was ordered on-line from Walther's in the United States (see references).

PAINTING

I decided to add a little 'character' to this model by finishing it as a Union gun captured by Confederate forces (I am sure that our Memphis, TN Chapter will appreciate this!). Accordingly, there are essentially four colours to use for this model: bronze, medium green, grey-brown and black. The gun barrel, as noted above, was cast bronze, so you can use any bronze paint you wish. I used a mix of Alclad II paints for mine, but ran into a small problem. Having successfully used Tamiya Gloss Black on earlier projects as an undercoat, I used it again here. However, after about two or three weeks, the Alclad II started to crack. I removed the paint, re-sprayed with the Mr. Surfacer 1200/lacquer thinner mix, and started again. This time, I used decanted Krylon Gloss Black (#1601) based on an article I found on the Internet. Three or four light coats followed by a polishing with MicroMesh prepared the surface for the Alclad II application. This time the application was successful. I lightly airbrushed very thin coats of dark brown and black randomly over the barrel to replicate wear and grime. These did not cover the bronze, but added a touch of depth to the finish. I lightly applied Xtracolor Exhaust at the muzzle and touch hole to replicate powder residue left as a result of firing.

Most Northern gun carriages in the American Civil War were painted with an olive green colour, obtained by mixing yellow ochre and black. Other colours were used occasionally, but not often. I used Xtracolor X816, British Army Khaki Drab, but any similar colour will do. However, to add interest to the model, one of the wheels was painted in a grey-brown shade. My somewhat apocryphal story is that a solid shot strike on the right wheel disabled the gun. Abandoned in combat, it was

captured by Southern forces, and subsequently repaired by fitting one of their wheels to the carriage. The South, suffering under Union blockade, used whatever appropriate paint they could find, hence the mismatched wheels. Weathering was done with pastels of various shades to replicate slight rust staining, dust, and the usual wear and tear of rough campaigning.

CONCLUSION

Although at times frustrating, this kit built up into a very pleasing replica of an extremely important weapon used in the American Civil War. With thousands of British North Americans serving in the War, and up to 29 of these men receiving the Medal of Honor for their acts of bravery and courage, it is a reminder to me of the close ties we have with our American friends, and have had over the past 140 years.



REFERENCES

- ◆ Philip Katcher, **American Civil War Artillery 1861-65 (1): Field Artillery**, Osprey Publishing, New York, 2001.
- ◆ United States National Parks Service: various websites that provided information on the Napoleon.
- ◆ www.cwartillery.org Homepage of several artillery-oriented websites.
- ◆ www.swannysmodels.com/Alclad.html Swanny's Alclad page, one of many on his website.
- ◆ www.walters.com Railroad landscaping material.



About the author:

Gary Barling was born and raised in the Toronto area and subsequently served 40 years in the Canadian Army. He's 64 and has been retired since 2004. Modelling since 1955, His main area of interest is aircraft, with strong minors in armour and ships. Gary's been a member of IPMS Canada since 1965 and currently the Chapter Liaison Representative on the IPMS Canada National Executive. He maintains dual citizenship in both IPMS Ottawa and IPMS Farnborough in England.



M3A1 STUART Recce



4th Cdn A/Tk Regt – Italy



By Bob Ascah,
IPMS Canada #0878
Limestone City Modellers,
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77 Background

In December 1943, 1st Canadian Corps, 5th Canadian Armoured Division and Corps Troops deployed to Italy to join 1st Canadian Infantry Division and 1st Canadian Armoured Brigade. This was done as a Relief in Place; the Canadian units taking over equipment from British units that returned to England in preparation for the invasion of France. To the chagrin of the Canadians, the result was that they 'inherited' a motley collection of battle worn / road weary vehicles that had seen considerable British service in Tunisia, Sicily and even Egypt/Libya before being issued to them. These matters were not helped by suspicions that the British 7th Armoured Division had deliberately carried out an exchange program with other 8th Army units prior to the handover, in order to retain the best vehicles in British units, and consequently passing on the worst vehicles to the Canadians. While tanks and other principal vehicles were replaced at the outset with new vehicles, many of the soft skins and support vehicles continued to soldier on through 1944.

A study of loading tables for Operation GOLDFLAKE, the move of 1st Canadian Corps to the Netherlands in February 1945,

turned up some interesting oddities in the Canadian units. In the case of 4th Canadian Anti Tank Regiment, two M3A3 Stuart light tanks and five M3A1 Stuart Recce tanks were being held by the two M10 SP batteries. The gun tanks appear to have been assigned to the Battery Commanders and the Stuart Recce vehicles assigned to the Troop Commanders in lieu of the Universal Carriers authorized by War Establishments. While the M10s were most likely new vehicles, 98 and 82 Batteries not being equipped as SP sub-units until March 1944, I am quite certain that the Honeys (as referred to in the War Diaries) were ex-8th Army vehicles. Following the move to the Netherlands, the Troop Commander vehicles were exchanged for M3A3 Stuart Recce vehicles and the 3" M10s were replaced by 17 pdr M10s. These vehicles appear in the well-known Public Archives photo of the 23 May 1945 Victory Parade at Groningen, Netherlands.

77 General

Having picked up an Academy 1/35 scale M3A1 to use the road wheels on another project, I decided to take a stab at modelling a Troop Commander's ride in Italy. At the start of the project, information on these vehicles was sketchy at best; much of the final product is the result of informed speculation and deduction. Imperial War Museum (IWM) photos do show recce conversions of M3 and M3A1 Stuarts and a comparison of the Stuart Recce Census Numbers from the load tables with the list on the MAFVA site

(Above) Lt I.L. Rosenbaum's ride. An interpretation of a little known Canadian vehicle from the Italian Campaign.

confirms the Canadian vehicles as being M3A1 hulls. As I reached the painting stage, I came across a British Pathé film clip which showed a British M3A1 Stuart Recce in Messina, Sicily. This necessitated a couple of quick adjustments to my depiction. While the conversion could be done on the Tamiya kit,

M10's	V.D. No.	
	0.281050	
	0.231077	
	0.235430	
	0.235124	
	0.231789	
	0.231054	
	0.230422	
	0.230600	
	0.231055	
	0.230913	
	0.230724	
	0.231057	
Tanks Light Mk I Stuart	V.D. No.	236343
"		T 156378
"		T 156344
Tank Light Mk I Stuart	V.D. No.	236418

[W.L. Shortwood, Major
D.C. of A/Tk Regt,
4 A/Tk Regt., 23rd

(Above) The inspiration. Extracted from the unit War Diary.



(Left) Academy's basic interior. Raw umber and black washes bring out the details and provide a well-used appearance.

necessary to assemble the basic suspension first. This will permit filling and sanding the interior walls prior to adding the interior components. Based on the kit review at the Perth Military Modelling Site, I elected to use a set of Tamiya road and

the inclusion of a basic interior in the Academy kit makes the project simpler. Final painting and marking is a best guess in the absence of clear photos and diagrams. This article will look at my approach and interpretation of this obscure beast.

idler wheels in place of the kit's open rib wheels. This was more a matter of having the Tamiya parts at hand than a purist approach of buying a second kit for parts. The return rollers and drive sprockets were left off at this point to ease the process of fitting the upper and lower hulls and seam finishing.

77 Suspension

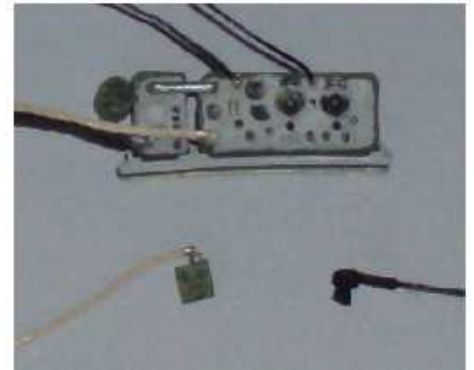
As the mounting pegs for the suspension towers extend through the lower hull tub, it is

77 Interior

The floor and rear bulkhead were glued into the lower hull without modification. In retrospect, some shimming may have been in order; however, I'll leave that to personal choice. The rest of the interior followed the kit instructions with the exception of leaving out the sponson radio (B21) and ammunition racks. A base coat of white paint was employed followed by washes with black and raw umber acrylics to create a well-worn look. A dry brushing of the floor plates with steel finished off the colouring. The issue of a radio fit now raised its ugly head. A lack of definitive information on M3s and brainstorming with fellow modellers led to the decision to mount the radio in the right hand sponson. There is conflicting information on the wireless sets employed by anti tank units, with some sources indicating No. 22 sets.



(Above) Do as I say. Trim the kit turret ring back as marked, leaving the mounting tabs and representative ring in place.



(Above) Maple Leaf Models No. 19 radio set. Painted cord and black thread have been added to wire the basic components.



(Above) Filling required on the upper / lower hull joints. Note the styrene bracket added to the rear fender storage box. Tamiya wheels have been added for their improved appearance.



(Below) Ultracast figure painted up as the Troop Commander.





The turret ring was removed from the upper hull based on earlier assumptions of Stuart Recce conversions. A homebrew splash ring was then added using .010" styrene strip. Again, after committing knife to plastic, new information indicated that the turret rings were left in place.

A check of 4 A/Tk Regt's War Diary referred to No. 19 sets, although without specific comment on the SPs and Honeys. I accordingly prepared a Maple Leaf Models

horizontal locking plate to the interior vertical surface would appear to be the best option here. The front sponson plates (B1, B54) and hatch plate (E27) were added, the interior painted white and washes applied. If leaving the driver and assistant driver hatches closed, they can be added at this time. The upper and lower hulls were then glued together.

77 Exterior ★

After filling and sanding the seam between the hull halves, the remaining lower hull components from Step 1 were added. Attention then turned to the upper hull details. A flimsy rack (B30) was added to the right rear fender and a British stowage box (B27) to the left rear fender. Both required the construction of support braces from strip styrene in order to sit level, a detail omitted on the kit. The British box (B25) was added across the rear deck and the final British box (B26) was added to the right front fender. Side skirts were not added based on studies of photos and the known qualities of winter mud in Italy. As mentioned, subsequent



No. 19 set for installation. For those desiring a No. 22 set, Resicast's U.K. Wireless Sets includes a pair of very nice units, albeit without the vehicle mounting tray.

information showed that the auxiliary fuel tanks atop the sponsons were left in place when the turrets were stripped off. A quick assembly of the kit parts ensured and they were glued down as per the instructions. The editorial deadline precluded further research in this area and so I am uncertain as to the style of mounting brackets actually employed. The kit parts do not appear correct; however, more digging about is required in this matter. A No.8 Aerial Base (conical) from a Tamiya Universal Carrier was position atop the right front sponson roof and an 8' antenna added to this. For the 'B' set the kit component B38 was used to replicate a No. 9 Aerial Base, being added to a 1/16" styrene rod and inserted into a vertical hole drilled through B49 and the engine deck. A 20" rod antenna was added to this. The external 0.30" calibre MG bracket from the back of the kit turret was assembled and fitted to the centre of the front driver's compartment plate. The co-driver/ glacis MG mount was left empty based on the vehicle in the British Pathé video.



(Above Left) The basic camouflage painting and vehicle markings. A wash of raw umber has been added to add dimension to the paint job.

(Left) Crew stowage in the left sponson. The MG mount as based on the British Pathé film.

(Above) A wash of buff titanium has been applied to the overall vehicle. This applies a dusty appearance, although care is required to ensure that there is not a build up of colour in the crevices. Headlights have been painted over as a common practice to eliminate reflection.

(Bottom Left) Those pesky external fuel tanks. The kit mounting does not appear correct, although further research is required on the actual tie-downs.



(Above) RH – Troop Commander, H Troop.
Red square in lower left of blue square – Third Battery.
77 on a red/blue square– Armoured Division A/Tk regiment
Maroon rectangle – 5th Canadian Armoured Division. The “Mighty Maroon Machine”

(Top Right and Below) Views of the finished vehicle.

is a best guess. The rubber on the suspension wheels and track pads is a dark grey with raw umber being used for the metal portions of the track. Markings were cobbled up from various decal box items, the troop commander tactical signs being the most problematic as few artillery sets deal with A/Tk units. The Census Number was constructed using an Archer Dry Transfer set. The end results are interpretive for Troop Commander, H

Troop, 82nd (Gaspé) Anti Tank Battery RCA. Weathering was applied with acrylic washes of raw umber and buff titanium and a dusting of the lower hull and suspension with Model Master Skin Tone Shadow Tint. Care was taken in applying the washes to ensure that the formation, unit and tactical signs were left visible.



- ◆ Archer AR35084B British War Department Numbers (Black)
- ◆ Resicast 35.528 UK infantry equipment
- ◆ Ultracast 35047 Canadian/British Tank Crewman

77 References

- ◆ Staff Tables, Operation GOLDFLAKE; Library and Archives Canada RG24 Volume 10778
- ◆ British Middle East Colours. Tunisia, Sicily and Italy 1943 – 1945; Mike Starmer
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- ◆ British Pathé – “Sicily – The End” Film ID 1093.14 (<http://www.britishpathe.com/>)
- ◆ E-mail – Marc George, Director, RCA Museum, Shilo
- ◆ Conversations – Dave McCarey, Education Coordinator, Military C and E Museum, Kingston

77 Final Details

Resicast large packs and other pouches, a Dragon PIAT, and various other items from the spares box were added to give the interior a suitably cluttered look. A typical troop commander crew would be a lieutenant and three other ranks, although I went with a crew total of three to acknowledge the personnel shortfalls encountered in theatre. An Ultracast tanker painted up by Dave McCarey for me was added to provide a sense of scale. For those wishing to add cam nets (a future project), light tank scales in 1944 were one 12'x12' garnished net and one 24'x24' garnished net. In 82nd A/Tk Bty, the mesh nets of the M10s were exchanged for shrimp nets in late April 1944.

77 Conclusion

This started as a relatively quick and enjoyable project, but quickly took on a life of its own after my commitment to write it up for RT. That said, it did prove rewarding, despite the lack of specifics regarding Canadian usage and the late discovery of supporting evidence. The Academy kit builds up well, and the inclusion of the British stowage in the M3A1 kit simplifies the Commonwealth detailing. The subject choice provides an unusual and little known vehicle from Canada's Italian battles. **RT**

77 Products Used

- ◆ Academy 1398 M3A1 Stuart Light Tank
- ◆ Maple Leaf Models MLM3008 Commonwealth Radios

77 Painting

The model was finished in Light Mud and Blue Black colours, as specified in early Italian Theatre instructions. Steve Guthrie recommends a mix of four parts Tamiya XF-49 Khaki, three parts Tamiya XF-2 White and one part Tamiya XF-1 Flat Black for the light mud. This provides a spot on match to the colour chip in Mike Starmer's book. I lightened my mix with a dollop of Tamiya XF-55 Deck Tan for 'scale effect'. Tamiya XF-50 Field Blue was used for the Blue Black disruptive pattern. Mike Starmer's excellent guide on Italian Theatre camouflage notes that no documentation for Stuart vehicle patterns has been located. As such, the Blue Black pattern



About the author:

Born in Montréal, Bob Ascah served Queen and Country for 36 years in the Canadian Forces. He is now retired and enjoying a more leisurely life with the added bonus of additional modelling time. Having started in plastic modelling at an early age; he joined IPMS Canada in the late 60s, drawing inspiration, as well as stealing ideas from RT over the years. An active member of the Limestone City Modellers in Kingston, Bob's principal focus is on military vehicles with a key focus on WW II Canadian equipment, the Cold War and the various Arab/Israeli

Evolution of British Late-War Upper Wing Roundels



by Steve Sauvé, C#0323
IPMS Ottawa

I've tried to use the proper names for the stuff in our hobby, but this is a tough one; changing a life-long habit that I've grown up with. Thanks to the SAM monographs referenced in this article, I now know that the common names for RAF roundels (Type A, A1, B, C, C1) were *not* the official names in use by the RAF and Ministry of Aircraft Production (MAP). Who knew?!?!

For clarity in this article, I will use the familiar British marking notation system created by Bruce Robertson in his 1956 Harleyford book, *Aircraft Camouflage and Markings, 1907 to 1954*. But for the sake of education, here is a cross-reference between the two naming conventions:

Image	AP 2656A Name	Robertson Notation
	National Marking I (no set sizes for this roundel) Ratio 2:5	Type B
	National Marking IA (all sizes except 32" and 48") National Marking II (32", 48" only) Ratio 3:4:8	Type C
	National Marking III (18", 36", 54") Ratio 3:4:8:9	Type C1

Marking Changes and Chronology

An Air Ministry Order (AMO) promulgated on 02 Jan 1945, directed that all RAF aircraft, except for those used on night operations, those in SEAC and in the Pacific, were have their upper wing roundels changed to red, white and blue (*i.e.*, Type C), instead of red and blue (*i.e.*, Type B). This was to come into effect on 07 Jan 1945. This was to help aid in recognition of British aircraft and help reduce the number of 'friendly fire' incidents still taking place.

The upper wing roundel change also came into effect for new production aircraft from 07 Jan 1945 (*or later*,

depending on which references you believe).

In connection with the AMO, marking changes to RAF 2nd Tactical Air Force (2 TAF) day fighter aircraft on the European continent concurrently came into effect on 05 Jan 1945. These were:

- removal of the Sky rear fuselage band
- painting propeller spinners from Sky to Night (*black*)
- conversion of the upper wing roundels from Type B to Type C

Later, in April/May 1945, the upper and lower wing roundels on some 2 TAF aircraft were converted from Type C to Type C1 through the addition of a Yellow outer ring.

☞ The End ☞

A nice, short, simple story, right? Ah, if only it were so ...

The Problem

One thing that is evident on many aircraft is that when the two roundel conversions took place, it produced some mis-proportioned results. From a modeller's point of view it should have been a fairly straightforward process to convert a 54" Type B to a 54" Type C or Type C1. Unfortunately, we weren't the 'erks' swinging the paint brushes.

Unlike the three stipulated sizes for the Type C (18"/32"/48") and the two sizes for the Type C1 (36"/54"). There was a wide range of sizes in use for the Type B upper wing roundel. The Type B roundels of some of the types affected by these marking changes were:

- Beaufighter 63"
- Mosquito 54"
- Spitfire 56"
- Tempest 50"
- Typhoon 50"

One other problem affecting the roundel conversion was the fact that the upper wing B roundels were both sized and placed to fit snugly in the space available on the upper wing. Most aircraft had the roundel located 1" ahead of the aileron hinge, which was the minimum distance permitted, and generally not much more than that from the leading edge (*or the yellow leading edge ID strip*). This is an important point to note for the purposes of this article.

The standard roundel size and positioning left no room to increase its dimensions, as regulations did not allow roundels to overlap onto the aileron. Consequently, the only recourse was to work with the existing marking, its current proportions, and go from there.

(Mis-)Step 1 – Type B to Type C Conversion

I have a theory as to how this mis-proportioning problem came to be. When you stand back and look at it, and not through a modeller's eyes, the problems that arose and their practical solutions by the guys in the field make what happened easier to understand.

Using Spitfires as an example, they carried a 56" Type B upper wing roundel. This consisted of a 22" or 22.4" (*depending on your reference source*) red centre spot on a 56" blue background. This is a ratio of 2:5, red to blue. The roundel was typically located 1" ahead of the aileron hinge line.

To create a Type C from a Type B is a pretty straightforward process, right? Simply add a white ring and you're done. Sigh...

A Type C roundel has proportions of 3-4-8 (*red-white-blue*). In the case of the conversion of a 56" Type B, that would require a 21" red centre, a 28" diameter white ring 3.5" thick, and a 56" blue circle.

Well, what should have happened is that a 3.5" wide white ring was painted to cover 3" of blue and ½" of red in the existing Type B roundel. I'm sure that happened in many cases, producing a properly proportioned Type C roundel.

What I'm also sure happened is that some airmen either didn't care (*I hope*

not), didn't know what to do (not likely), or, maybe more likely, somebody saw an easier '90% correct' solution in using the red/blue boundary as a guideline and simply painted the white ring up to that edge. From the airman painter's point of view, it was only a half-inch difference, so what's the harm? And it sure would make the painting go faster, with one edge of the white ring clearly defined on the wing. If you look at the representative graphics I've produced for the article, it really doesn't look wrong or bad.

An issue with the compromise solution would be the width of the white ring. It should have been a 28" diameter, 3.5" wide ring. Using the 'close counts' scenario I described above, then there could also have been a 28" diameter, 3" wide ring painted on the blue, or maybe even a 29" diameter, 3.5" wide ring painted on the blue. Either way, when they're seen by themselves, they still don't look terribly wrong as final results.

(Note that this theory deals with minor errors in width and positioning of the white band. You can also find photos of aircraft with much greater degrees of error than I've shown, but the general idea of the problem and the solution still holds)

(Mis-)Step 2 - Type C to C1 Conversion – April/May 1945

By this point in the war, we now have aircraft being built with Type C roundels at the factory, and any repainting work at the RAF Maintenance Units (MUs) or contractors probably doing the same thing. Plus whatever kinds of Type C roundel variations had been produced by units in the field.

Then some 2 TAF units added a yellow outer ring to the Type C roundels above and below the wings to produce a Type C1 roundel.

For this to take place, a Type C1 conversion becomes potentially more complicated to produce correct results. Even if the Type C roundel was properly proportioned, there was no room left to add the yellow outer ring to the existing marking. The way I see it, the remaining options were:

- Repaint the entire roundel as a proper 36" or 54" Type C1 (with a 3:4:8:9 ratio, the math would have

been much simpler to use the standard sized marking). This would involve repainting Dark Green, Ocean Grey, plus red, white, blue, and yellow

- Do a partial repaint, using the existing roundel as the foundation. Depending on the size, this would require some math to determine the band widths and repainting some or all of the four markings colours.
- Compromise and just add a yellow ring to the blue band.

So what do you think the squadron painters did? That's what makes this part of the hobby fun! Based on photos it's an easy bet that all three options were used, depending on local conditions and motivation at the time the painting took place.

This problem didn't seem to occur with the Type C1 conversion of Type C underwing roundels. They were invariably sized at 32" and situated on the wing with plenty of room around them to add the new 2" yellow outer ring at the outside edge of the blue ring. The width could be accurately determined simply by measuring the width of the existing 2" thick white ring that was already in place on the

aircraft. The result seems to have consistently produced a properly proportioned 36" Type C1 roundel.

Modelling Solutions

I've studied this roundel issue with interest and it's a problem for modellers. There are almost no decals available that reproduce these discrepancies. The Canadian company **Watermark Decals** produced a sheet with some mis-proportioned C1 roundels and this sheet is still available through their website. But that only covers a couple of variations, one being a fairly unique style applied to one particular Spitfire.

With the trend by some decal makers to produce their British roundels with separate red and yellow components, it's something you can jury rig a fix for, by mixing and matching various-sized roundel components (*in various scales*) to create a good match for your model. Good Luck!

Parting Philosophy

This admittedly small area of interest is one of those things that I find fascinating and important to our hobby. I think that some modellers get too wrapped up in official orders and



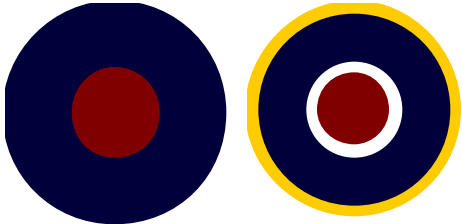
Above: A 400 Sqn Spitfire PR.XI sporting 36" Type C1 upperwing roundels, 01 May 1945. Credit DND Photo PC-2357



Below: A 414 or 430 Sqn Spitfire FR.XIV with converted, misproportioned C1 roundels, 01 May 1945. Credit DND Photo PC-2358

Roundels are 1/48 Scale

56" Type B with 22" Red centre (normal size seen on Spitfires Ratio 2:5)




54" Type C1 Ratio 3:4:8:9

Correct 56" Type C with 21" Red centre and 28" white ring

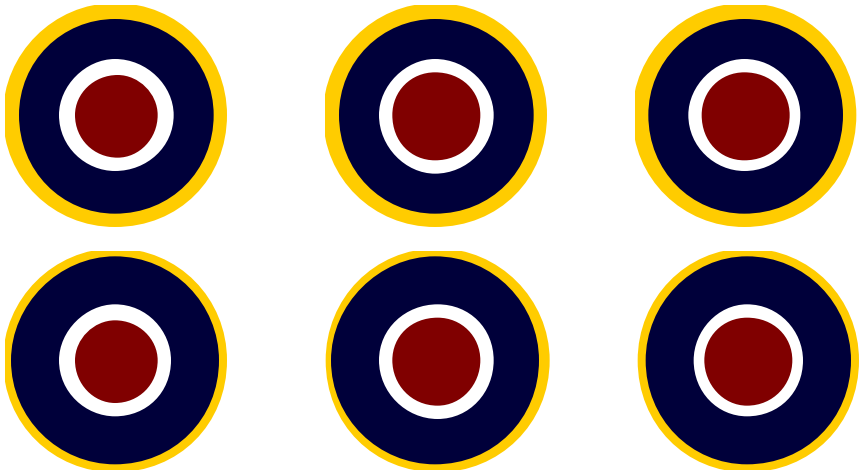
56" Type C with 22" Red centre and 28" white ring

56" Type C with 22" Red centre and 3.5" thick, 29" white ring

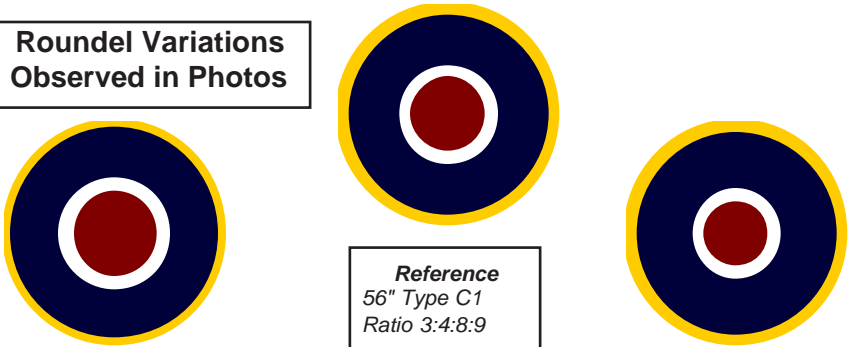


First row, below
What the above Type C roundels would look like with a 3.5" yellow ring painted over the blue disc

Second row, below
What the above Type C roundels would look like with a 2" yellow ring painted over the blue disc



Roundel Variations Observed in Photos



56" roundel proportions on Spitfire FR.XIV photo seen in this article.

Reference
56" Type C1 Ratio 3:4:8:9

56" Type B converted to Type C1 with 3" yellow ring painted on the blue ring and a 3" white ring painted from the red edge inwards (seen on Spitfires).

official practices and consequently miss some of the realities of these machines that really make them more interesting.

Have you ever seen a good quality close-up photo of some of these wartime aircraft? They can tend to look like real 'beaters'. Heavy weathering, wear and tear, stains, mismatched paint and roughly painted markings. I think it's safe to say that the guys painting and maintaining these airplanes didn't really care (*at least like we do*) about the small stuff. Markings may have been properly applied at the factories and RAF Maintenance Units, but at the sharp end, in wartime, things were different. They treated these aircraft as combat machines, and keeping them pretty, perfect and squeaky clean weren't as high on the priority list as keeping them serviceable and ready to fight. I know from my own military experience, that the 'close counts' solution to a problem was often perfectly okay to get the job done.

Human nature in WWII is still human nature. So whenever I'm confronted with one of these oddities about an aircraft I'm researching, I always look for the simplest reason that explains what happened. In this case, the troops were given painting jobs to do and I've tried to see how they'd do it that:

- a) got the job done to the satisfaction of their bosses, and
- b) got it done as quickly and easily as possible.

When I read in Pat Martin's excellent series of RCAF/RCN/CAF markings books on the painting issues in Canada's post-war military, it is fascinating to see the errors, oversights, misinterpretations and compromises that took place. And this is what was happening in a peacetime military. I'm certain that the same problems existed in WWII and were dealt with in similar ways, or not dealt with at all.

In doing these two markings' conversions from Type B to Type C1, there was no doubt a lot of repainting done correctly, with the prescribed dimensions carefully adhered to. But the evidence is there of compromises

being made in order to get the job done simply, quickly, easily, and 'looks good – let's go for a beer'.

Keep in mind that these guys were fighting a war, not trying to win a warbird painting contest.

References:

Ducimus Books Ltd:

- Camouflage & Markings No.1, Supermarine Spitfire RAF Northern Europe 1936-1945
- Camouflage & Markings No.4, Hawker Tornado, Typhoon & Tempest, RAF Northern Europe 1936-1945
- Camouflage & Markings No.6, de Havilland Mosquito RAF Northern Europe 1936-1945
- Camouflage & Markings No.9, Bristol Beaufighter, RAF Northern Europe 1936-1945

Scale Aircraft Monographs:

- Camouflage & Markings No.1, RAF Fighters 1945-1950 UK Based, by Paul Lucas.
 - Camouflage & Markings No.5, RAF Fighters 1945-1950 Overseas Based, by Paul Lucas.
- (I cannot recommend these volumes highly enough. They make for an excellent technical read and are a 'must have' reference for anybody who wants to understand the background, development and application of RAF camouflage and marking marking practices.)*

Watermark Decals -

www.watermarkdecals.com



About the author:

Steve Sauvé hails from Ottawa, Ontario. Recently retired from the Canadian Forces, he now works as a civilian in the Department of National Defence. In the hobby for over 40 years, he has been a member of IPMS Canada since 1968. His interests are Canadian military aircraft, Luftwaffe and NATO aircraft, plus Canadian Army vehicles. He's been a member of IPMS Ottawa, IPMS Winnipeg, and IPMS Cold Lake.

A '72 CHEVY FARM TRUCK

by Massimo Santarossa
C6052
Calgary, Alberta



Looking over the display my eyes settled on an old pickup truck model I had built a few years ago. Our new Editor was in the market for articles so I thought I would submit something that wasn't the traditional airplane or tank. It seems that each time I build a model, I end up trying out some sort of new technique or using an after market product for the first time. This build was no exception. I got the inspiration for this project from a photo of my wife's farm when she was growing up. There, in front of the barn next to a tractor, was a GM pickup. But I wasn't happy just building an ordinary truck; it needed something more and along came the February 2000 issue of FineScale Modeler. In it was an article on how one individual aged and weathered a '70 Chevelle. Add to that the desire to try out Bare Metal Foil and I was good to go.

The Kit

The kit I used was AMT/Ertl's 1/25 1972 Chevrolet Cheyenne Pickup Truck, which allows you to build two versions of the truck. I chose to construct the standard vehicle, since I don't believe my father-in-law would have had a souped-up truck for hauling hay bales. I completed the kit right out of the box with one exception. I added spark plug wires to the engine. A word of warning if you plan on building this kit. Dry fit everything and dry fit often. There is some flash on the kit, which is nothing new, but a number of parts do not fit

together just because they're off the sprue. I found that most anything to be attached to the chassis needed adjusting of one kind or another. This goes for small individual pieces right up to completed sub-assemblies like the engine. Seriously, I cannot over emphasize the need to *continually* check the fit of all the parts. Once you understand that, the rest of the kit is no problem.

Bare Metal Foil

I painted the kit Insignia Yellow and then satin coated it. Now came the *really* cool part. I had never used



Bare Metal Foil and I was interested to see how it looked on a kit and how easy it was to work with. Well, I laid down that first strip of foil over some moulding, burnished it in and immediately fell in love. My word, it looked like real chrome! I just sat there for about 5 minutes going "Wow!" at what I had just produced. I continued to foil the remaining mouldings, the tailgate, door handles and window frames. I found Bare Metal Foil easy to work with and have been using it ever since. If you make a mistake, simply strip it off and start again. However, there is one area that stripping and starting over will not work on. Some of the chrome grill in the kit had lost its plating, so I figured I would just cover it over with some of this fantastic foil. I did not like my first attempt so I removed the foil and in the process, pulled off almost half of the plating. Now I was forced into foiling the entire grill. Word to the wise.

The foil will take paint, but it won't take it very well. The paint will adhere to the foil, but it can be scratched off with little effort, which is a hidden

advantage, actually. During the painting process, I ended up "outside the lines" on occasion as I was working the mouldings and the like. Once the paint was slightly dry, my mistakes were easily scraped away with a toothpick, but be careful not to tear the foil in the process. This foil stuff is great and you don't have to be a rocket surgeon to use it.

Rust!

My article of inspiration from FSM showed how to create rust, rust holes, and paint dirt/dust. I basically followed the article as one would follow a cooking recipe, substituting only the brand of paint used. Here are some quick highlights. The rust holes are made by thinning the plastic from the inside of the kit and then gouging holes with a #11 blade from the front. Try to keep the holes from looking symmetrical when creating them. The rust is a combination of Testors Flat Black and Rust. I used two shades of "rust", darkest immediately around the holes then tapering off to the lighter shades. I also added some rust spots to other areas where it would normally develop. To give the rust texture, I added some baking powder to the mix. The truck then got a couple of dustings of

highly thinned Testors Flat Military Brown to simulate dust and dirt accumulation. If you are interested in doing a similar project, I highly recommend getting a copy of this article and using it as a guide, especially if you're a first-timer.

The end result is a good-looking 'dirty' farm truck that even brought back memories for my wife. It was a fun project and I even learned something along the way.

About the author:

Massimo Santarossa got back into modelling about 12 years ago after a prolonged hiatus. An omnivorous builder, he doesn't limit himself to any one particular type of model. His major interests lie in aviation, armour and automotive, and within these subject areas his interests are vast and varied. When not modelling, he plays husband and father to his wife and daughter. Occasionally he can be found going to work, where he flies a Boeing 767 on international flights.



Roden's 1/32 FOKKER Dr.I TRIPLANE



Fokker Dr.I 454/17 as it is believed to have appeared in March, 1917.

by Gary Barling, C#14,
IPMS Ottawa

Photos by the author

The Fokker Dr.I Triplane is an icon of First World War combat aviation. Coming into service in the late summer of 1917, the Triplane served to the end of the war. Grounded in late 1917 due to wing structural failure, it was redeployed with strengthened wings and an attendant improvement in factory quality control. Although only 320 airframes were manufactured, the Triplane gained significant notoriety for, among other reasons, being the final type flown by Manfred von Richthofen, the famed 'Red Knight'. Supplanted to a great degree by the superior Fokker D.VII, the Triplane continued in service to the end of the war as the favoured mount of some of the more successful German pilots of the war.

The Fokker Triplane has been well served by model manufacturers over

the years. Beginning with Airfix in the 1950's, companies such as Aurora, Revell, Smer, Blue Max, Dragon, Renwall, Micro Ace, Hasegawa, VK and Guillows (the latter two are flying models) have produced models from a tiny 1/144 scale to a huge 1/8 scale tour de force.

Roden's Kit

The appearance of the 1/32 offering by Roden in 2005 gave the promise of a large-scale replica that would be close to the final word on the Triplane. There were great hopes that this would be the 'crème de la crème' of Fokker Triplane kits. And, in the event, the kit does build up into quite a good model of the aircraft. However, as noted below, it does need help and care to achieve an accurate result.

Parts are well moulded, with very nice surface fabric detail. Approximately 100 parts are provided on six sprues. There is a little flash on some of the finer parts, but this is easily cleaned up. A nice touch is two sets of machine

guns: one is fully moulded, while the other provides only the receiver assembly and the barrel. The latter is for those who wish to purchase aftermarket items, including the slotted machine gun cooling jacket. Overall fit is generally good, but modellers should dry-fit parts and assemblies often to ensure that the fit is totally acceptable

In general, I found that this build should be by sub-assemblies: engine, wings, fuselage and undercarriage assembly should be built and painted separately, then assembled and fitted with remaining parts. I used several aftermarket items, each of which will be identified as we progress.

Construction

I started with the engine. The kit offering is very good, with the main body and cylinders split fore and aft and each cylinder head separate. This means that the seams on the cylinders are minimized and there is no seam showing on the heads. I finished the engine with various Alclad II colours,

painted the spark plugs white, added ignition wires and weathered the engine a little with a thin wash of Testors Rubber to replicate the engine's oil spray. (Photo 1)



Cowling and Engine

The kit cowling has two problems. First, it is presented as a single piece item when, in reality, the original featured a faceplate riveted to the engine cover. I solved this by purchasing an aftermarket cowling from Cutting Edge, sadly no longer in production. Second, the engine is a shade too large in circumference for either cowling. There are two fixes for this: grind out the inside of the cowling to accommodate the engine; or cut away the cylinder heads that will not be seen once the engine is mounted. I opted for the latter fix. The fuselage interior posed the greatest number of construction challenges. However, each of these can be overcome with patience and care. First, the mould ejection stubs near the cockpit must be ground or sanded off and the interior fuselage surfaces painted in Clear Doped Linen (CDL). This is not the same as British or French CDL: the German version is somewhat darker and more yellow. My mix used Xtracolor RFC Doped Linen, tinted with a little yellow and tan. The kit instructions would have you paint the interior surfaces an olive drab, thinking that the external colour would show through. This is not the case: the fabric

was clear doped with two coats before any external colour was applied, so no external colour would seep through.

There are a couple of puzzles to this kit. One of them is the fact that Roden did not mould a key feature to the inside of the forward fuselage. Large, triangular ply fillets run from the firewall back to just behind the pilot's seat on both sides, but the kit shows nothing of this detail. I went to a flooring store and picked up several brochures on wooden floors. These feature photos/images of the various flooring surfaces. Selecting one, I cut out a suitable triangle (having measured the requirements on the fuselage interior) and glued it into place with white glue. When dry, I added the three framing strips, cut from 1/16" wooden strip: top and bottom strips first, then the middle strip with the rear end trimmed to fit neatly between the other two. The 'image' was Dullcoted to cut down the paper gloss and there you have a ply fillet with quite plausible wood grain.

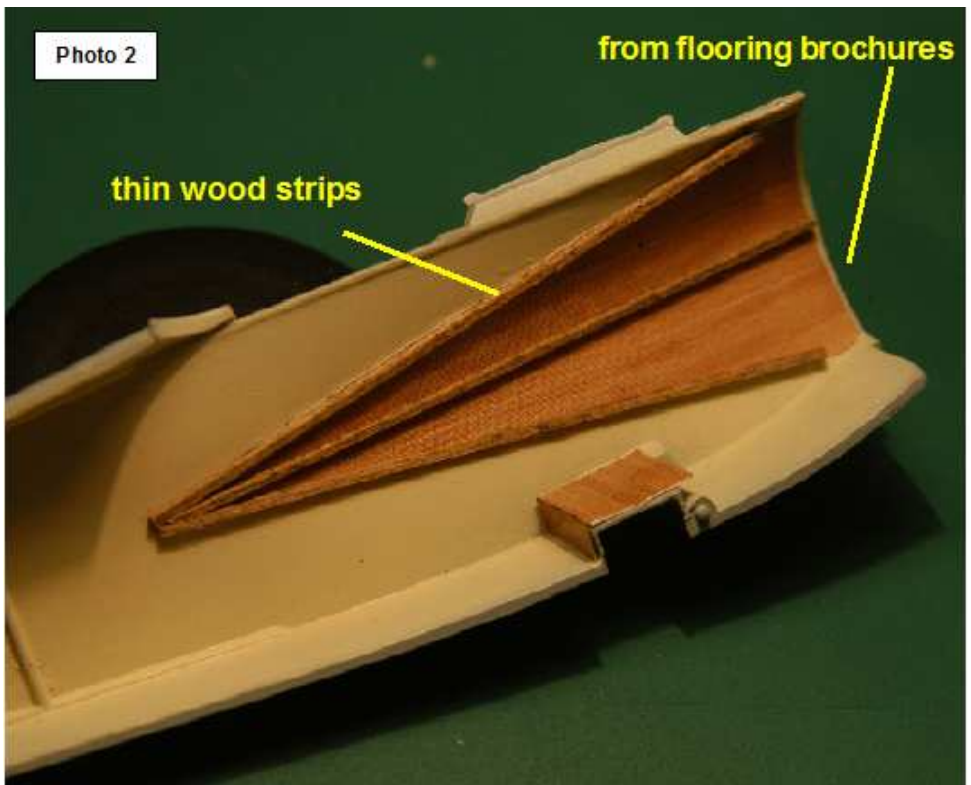
(Photo 2) I used the same material for the flooring and for the main spar of

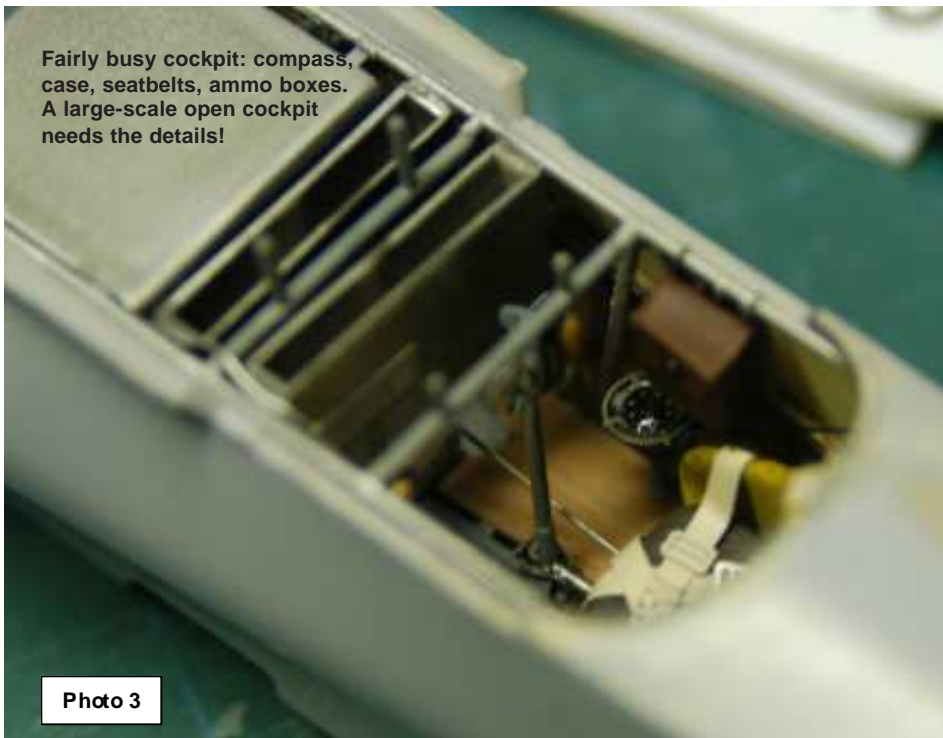
the lower wing (as represented in the fuselage assembly).

Cockpit

The cockpit provides a number of items, including the seat, rear fabric panel, floorboard, rudder, compass and control column. A pressure pump and auxiliary throttle control (on the framework) are also in evidence. It's here that a fair number of photoetch aftermarket items got fitted and a few errors fixed. The magneto/ignition switch on the right-hand frame was cut off and a PE part from the Eduard PE set for the Triplane was fitted on the left-hand side. The same set provided a replacement throttle assembly: the one moulded on the left side framing was removed, the frame sanded smooth and the PE part attached. Linkage bars from brass rod were fitted to the frame as well. A compass face was fitted to the upper compass surface and a coat of five-minute epoxy applied to replicate glass. The seat of this aircraft was covered in yellow fabric, so wet tissue was applied with thin white glue, then painted. The PE set also provided seatbelts and fittings for the seat frame.

The gas/oil tank and the two ammunition boxes were a little finicky





Fairly busy cockpit: compass, case, seatbelts, ammo boxes. A large-scale open cockpit needs the details!

Photo 3

to fit. I took a 'best guess' approach by taping the fuselage parts together, dry-fitting these items and, when happy that all would work, gluing them in place on one side. I then fitted the pilot's seat assembly, which required the 'shoulders' of the seat frame to be rounded off and sanded down a bit to fit properly against the fuselage top/side interior corner. Next, the rudder and elevator cabling was strung from the controls back under the seat and though the holes in the seat frame blanking panel. I glued a piece of sprue transversely about an inch to the rear of the seat assembly and attached the cable ends to it. Finally, the tailskid, which had already been painted and detailed, was fitted into its place at the rear of the fuselage. Although I didn't do so, those who wish to open the cable access holes in the rear fuselage sides should thin the plastic behind these holes and then open them. Otherwise, the thickness of the fuselage walls will detract from their appearance. Now I could join the two fuselage halves, fill and sand the seams and relax for a day or so!

There is a squarish access panel on the undersurface of the fuselage, found in the space between the firewall and the leading edge of the lower wing spar. This was easily fitted: the panel was cut from 5-thou sheets plastic and

glued into place. When dry, small holes for the fasteners were drilled, fasteners added and a hinge (made from a length of brass wire) fitted to the front edge.

The horizontal stabilizer is dimensionally fine but, for some reason, Roden has moulded a central depression in both upper and lower surfaces. The upper surface, therefore, needs to have this filled and the cable access openings re-cut. The best way to do this is to use thin sheet plastic, cut to size with the edges filled and sanded, to ensure a dead flat surface.

We now move on to the wings (although I was working on them concurrently with other assemblies). Each wing is divided into upper and lower surfaces and is fitted with separate wingtips and ailerons (for the upper wing). Rib detail is quite nice. However, the wingtip part callout numbers are incorrect in the instructions. The correct upper wing tips are parts 7A (right upper) and 7B (left upper). The mid- and lower wing tips are parts 10D (left) and 11D (right) for each wing. Getting them wrong leads to filling and trimming to get the correct look.

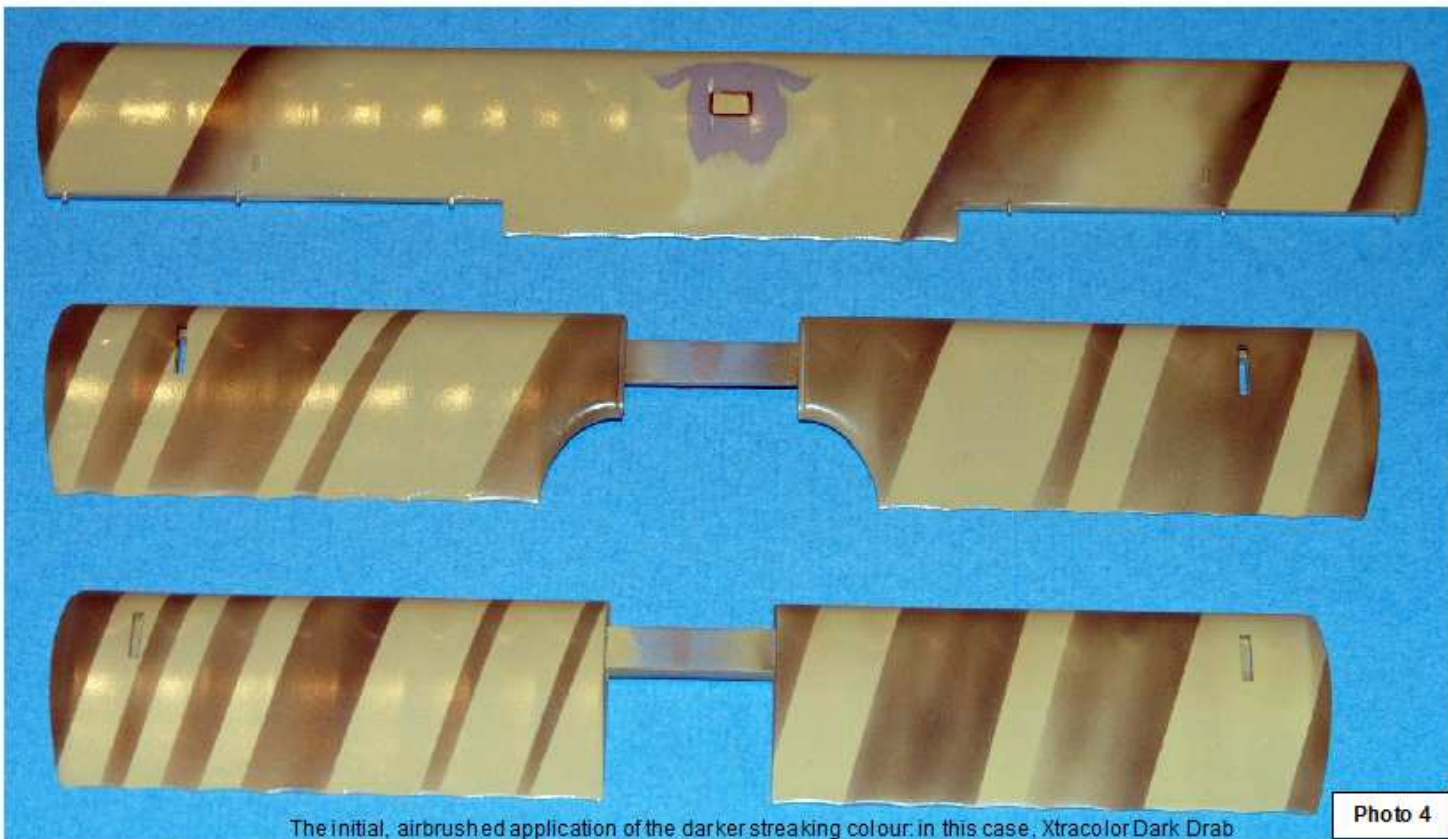
There is a celluloid viewing pane in the top wing, used to identify part numbers and to inspect the main spar. Roden has this represented in outline, but it is too far back from the leading edge. I sanded off the representation and then cut a small rectangular section out of the upper half of the wing. I fitted a small piece of clear plastic, then sanded, smoothed and polished the area back to a glasslike surface. A small piece of masking tape, cut to size, was fitted in the correct location and left there throughout all of the painting process. And, again, if you're going to open the aileron cable holes, now is the time to thin the plastic on both surfaces of the upper wing.

You are provided with both early and late style ailerons. The early ones curve back from the wing trailing edge over a distance of two ribs, while the later version uses a one-rib span. At least one aircraft carried one of each and, as this one was shot down and captured intact, more than a few model makers have relied on the British technical drawings of this aircraft to mould their offerings. Check your references!

Small pads were fitted to the leading edge of each wing at the factory. These were to protect the edge as the wings were stacked on the leading edge, hence the name 'stacking pads.' These are moulded into the leading edge, but they all but disappear during the sanding and smoothing of the leading edge. I simply drilled a small hole in the right place and then fitted a dark grey-painted Grandt Line rivet of correct diameter. The locations of these pads varied, so again, check your references. I've used what appears to be the default setting for them.

Fokker's Streaked Camouflage

At this point, I'll digress into a short discussion of Fokker streaked camouflage and how I applied this finish to the model. (Photo 4) I do this because, from this point on, virtually all of the major assemblies and parts ought to be painted to facilitate assembly. Apart from the actual streaking, my painting was done with either an Iwata Revolution or an Iwata HP-C, usually with Xtracolor paints, at



The initial, airbrushed application of the darker streaking colour, in this case, Xtracolor Dark Drab

Photo 4

least two parts thinner to one part paint (thinner for the application of yellow to the fuselage) and sprayed at about 18 psi.

First, paint the wings, fuselage and horizontal tail with German CDL. This is best done with wings, fuselage and tail assemblies separate. As noted above, I used an enamel mix (Xtracolor) of RFC CDL, trainer yellow and light tan to get the darker and more yellow German CDL.

The dope on Triplanes was applied randomly (more or less) and brushed

out to give the familiar streaked finish. This resulted in darker and lighter areas on the airframe. To replicate the darker areas without having to build them up with several light coats of paint, I use masking tape to define (by covering) the *lighter* areas and then lightly airbrush the darker areas. In this case, I used Xtracolor Dark Drab. This only *tones* the dark areas: it does not totally fill them in. The process also sets the angle to be used for the subsequent streaking. Note that the centre area of the top wing has yet to receive its toning: I had to do a bit of a repair and so did the toning after this

photo was taken. This also shows the celluloid window, discussed above.

I found a few photos of Triplanes and used them as a guide to define the darker areas. As noted above, the dope was randomly applied, so unless you have several photos of a given aircraft, artistic licence can be generously used (within reason) to define the various areas.

I used gloss enamel for the paint scheme to this point. This allows the subsequent streaking to be brushed out more smoothly. If matt CDL and

toning is used, you might want to apply a gloss coat over it before the next coat.

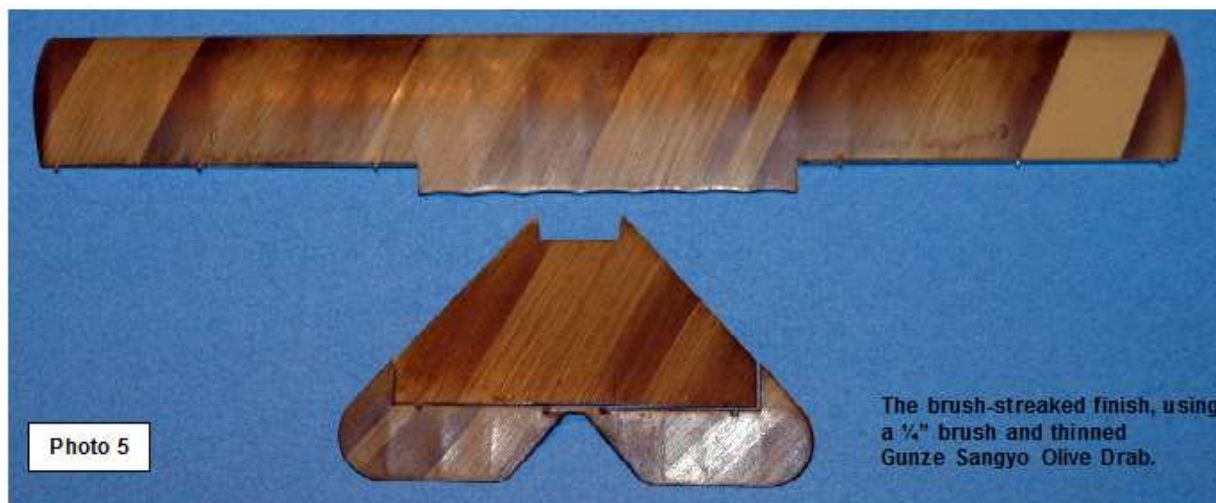


Photo 5

The brush-streaked finish, using a 1/4" brush and thinned Gunze Sangyo Olive Drab.

Now comes the streaking. There are two schools of thought on the actual colour of Fokker Olive Green. One holds that the colour was more of a brown colour, as most

of the surviving samples show this shade. The other says that the colour is much greener: current samples have aged and changed over the intervening ninety years. So which is right? Well, it seems that they both are. A well-respected researcher has noted that Antony Fokker used a browner colour up to early 1918, at which time (for some reason yet unknown), he changed to a greener colour. As virtually all of the Triplanes were built in 1917, it follows that the brown colour ought to be used to model them. By extension, virtually all of the Fokker aircraft built in 1918 (EV/D.VIII, D.VII and so on) would have carried the greener colour where not replaced by the four-colour lozenge pattern fabric. The acrylic Fokker Olive Green put out by Misterkits, for example, would be used for the 1918 aircraft. Olive Drab comes as close to the earlier requirement as any and modellers are free to choose which brand and shade they prefer.

Three or four applications were used in various areas of the airframe to build up the overall effect. Don't try to do it all at once. I used an acrylic paint (Gunze Sangyo Olive Drab), thinned roughly as two parts paint to one part thinner. The acrylic thinner, of course, does not affect the enamel CDL surface. Using a relatively coarse flat brush, about 5mm wide (more or less), dip the brush in the thinned paint, dab off the excess on an old cloth and (following the direction of the toned areas) apply a thin coat of streaks over the surfaces. If too much paint is applied and it tends to pool, just dab off the excess from your brush on the cloth and continue to streak. This starts the streaking effect in the light areas and almost finishes it in the toned areas. Let the paint dry for a few hours or so.

You can see how the streaking follows the original toning direction and how it has started the overall effect. Note also that the pattern of the horizontal stabilizer does NOT continue onto the control surfaces. On the original aircraft, elevators and ailerons were doped separately from the wing and stabilizer and attached to them later in the assembly process. This is easy on the Roden kit, as the parts are already separate. On other kits, with the control

surfaces moulded in, they should be masked (or detached) and painted separately. Note as well that the forward fuselage area, just behind the engine, was almost always a darker doped area. I think that the workmen started there and worked back towards the tail, hence they had fully loaded brushes when they began. You can see this in almost all of the photos of actual aircraft.

After two or three thinly streaked coats of the Olive Drab, I found the result to be 'almost right' but that (in my opinion) the streaking was a little too harsh. I therefore went over the surfaces with a very thin coat of the olive (four parts thinner to one part paint), very finely airbrushed on to blend the surface just the merest smidge (I'm not sure what a 'merest smidge' measures out to, but it's pretty small!). Next time, however, I think that I will try for a slightly lightened effect, as is shown on the tail sections: this attempt might be a smidge too dark. However, I am quite happy with how the technique worked out for a first run.

The Painting Continues...

Note that I painted the undersurface blue of all assemblies *after* the upper surfaces. This is because I felt that, had I painted the turquoise blue and then masked it off along the leading edge, the thinned acrylic would pool along the tape, possibly bleed under it and cause a bit of a mess. This in turn meant that the small 20 mm 'return' of the blue up the fuselage sides had to be masked and painted separately.

I applied the yellow (Xtracolor X-106, FS13538-Insignia Yellow) to the rear fuselage and tail surfaces in very thin coats, building up the colour until it almost – but not quite – covered the streaking completely. This replicates the brush application on the original aircraft, which allowed the underlying streaking to show through faintly. Note that, by this time in 1918, the white crossfields had been ordered painted over, usually with a more or less solid application of the olive green. Hence, the crossfields on the model fuselage took on a darker tone than the surrounding surfaces. The undersurfaces were sprayed Turquoise Blue (Xtracolor X-243, GermanWW1 Underside Blue). For the record, I used

Xtracolor X-103, FS11136-Insignia Red, for all red surfaces.

Upper Wing Colour Controversy

There has been an ongoing and usually friendly argument over the years as to the colour of the upper surface of this aircraft's upper wing. One school holds that it was painted yellow, except for the painted-over crossfields. The thought is that Lothar 'borrowed' the idea of his famous brother and painted the rear fuselage and upper wing a given colour: red for Manfred and yellow (his cavalry regiment's colour) for Lothar. The other school holds that the upper surface remained in the standard Fokker streaked olive camouflage. The only photograph of the upper wing was taken just after the crash of March 13, 1918. The yellow rear fuselage is shown to good effect but, as most of the upper wing fabric was torn away, only a portion of the left aileron and crossfield can be seen.

Both schools claim this photograph as proof that their interpretation is correct. The former claims that the portion seen is much lighter than the usual olive streaking, thus a lighter colour was applied through which some of the streaking shows. This scheme shows up in several paintings and is featured on the Cutting Edge decal sheet that I used. The latter school claims that early publications of the photograph show a much more defined streaking and hence there was no overpainting. The basis of this theory is that later publications of the image (copies of copies) become more 'washed out' and hence will show a lighter surface than the original. I've read a great deal from both sides and, although I do not dismiss out of hand the 'yellow upper wing' position, I have yet to be convinced of its accuracy. We will probably never know for sure. What swayed me to the finish I used was a statement by a well-known researcher, Mr. D. Abbott. He states, "*There are two schools of thought relative to Fok. Dr.454/17. I have a combat report where the RFC pilot describes the colours of Lothar's machine in precise detail, "Red engine hood, red struts and wheels, and the rear fuselage and*

Things to note in this shot are: the photo-etch for the machine guns, the shielded fuel gauge between the guns, blast protectors under the muzzles, and the second filler opening for the oil tank.



Photo 7

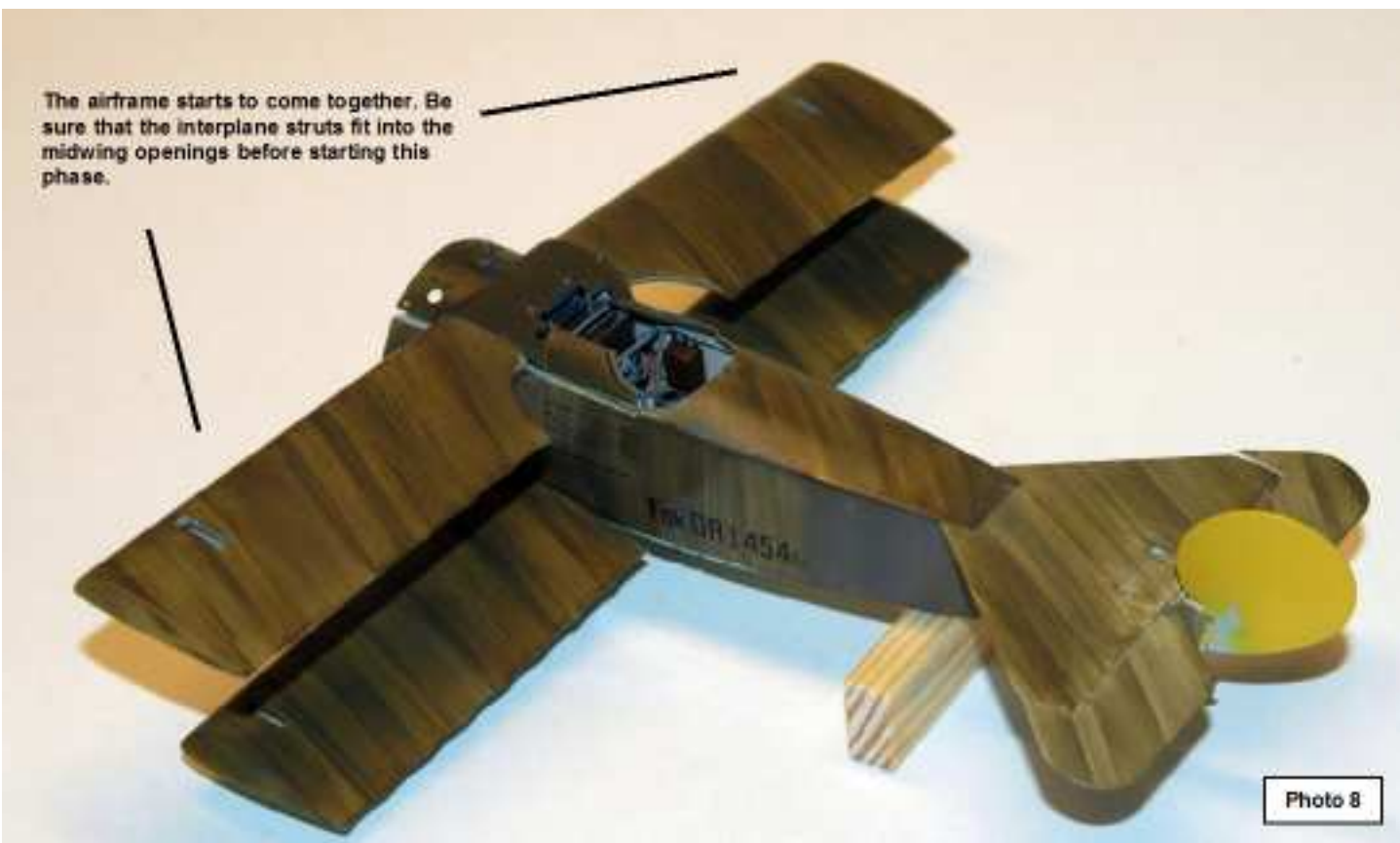
fitted two little blast plates positioned just under the machine gun muzzles. These protected the surface from muzzle blast. Thin sheets of plastic card, plus more small Grandt Line rivets and it was done. Use the solid guns to determine just where the plates go. Next, the machine guns. I found that the guns, when fitted with their cartridge feeds and spent cartridge collectors, did not

the tails yellow." But he does not say the upper wing was yellow. The cross-fields are over painted probably olive brown. The streaking can be clearly seen on the left aileron.

Turtledeck Details

Now we'll deal with the turtledeck, just forward of the cockpit. **(Photo 7)** I spent a fair bit of time on this little plastic thingie, as you'll read. First, I

fit well in their respective positions. Each gun impacted on the other, throwing off the alignment. I had to do two things. First, I opened up the slots for the guns and their cartridge feeds/



The airframe starts to come together. Be sure that the interplane struts fit into the midwing openings before starting this phase.

Photo 8

With the midwing and interplane struts fitted and squared, the upper wing is fairly easy to fit. Ensure your decalling is done in stages as well: lots of them, in some difficult locations on the finished model.

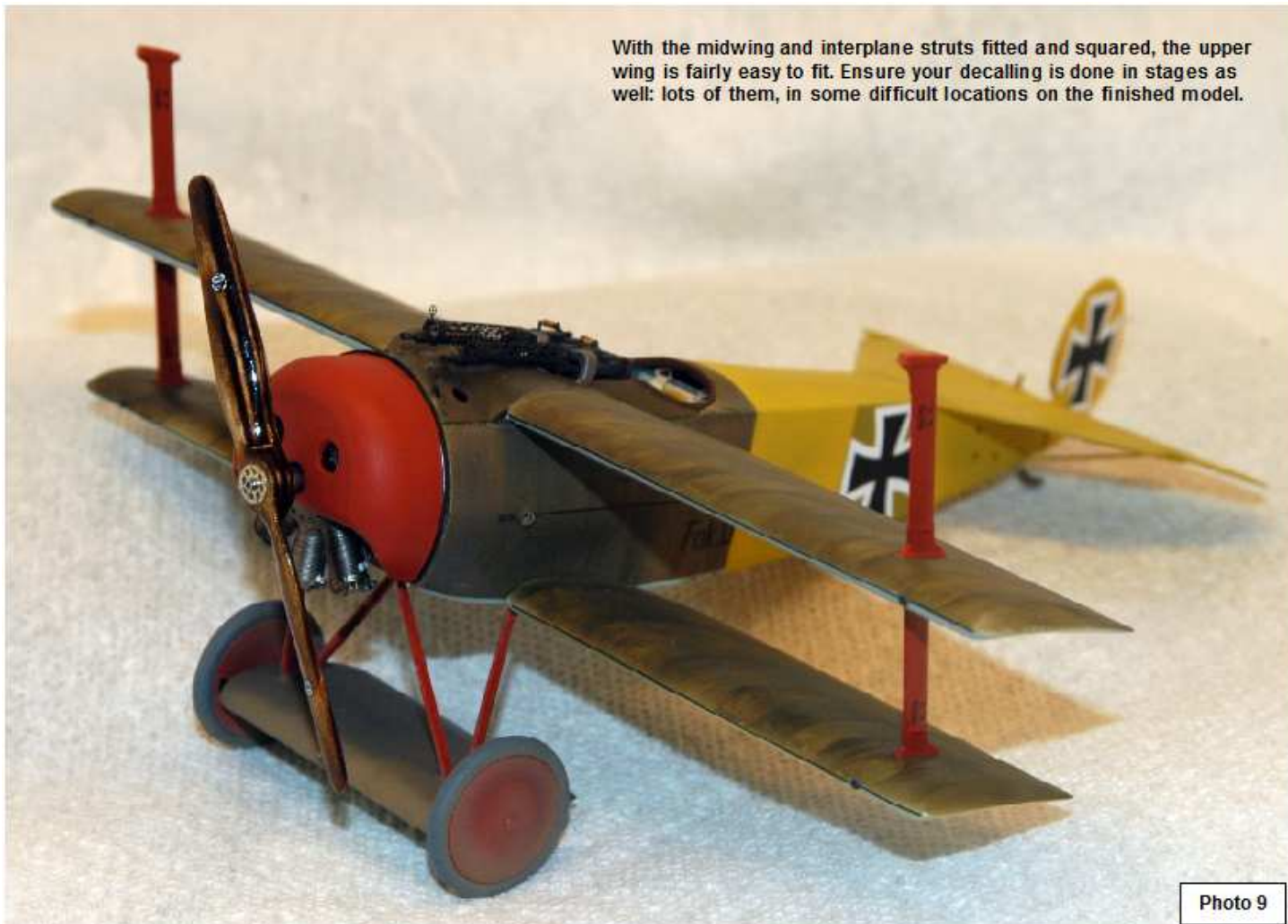


Photo 9

collectors. Then I removed the collector from the right hand gun, trimmed it so that it fit closer to its gun and reattached it. In essence, I moved it slightly to the right, closer to its gun. This reduced the impact on the left hand gun. The combination of opening slots and shortening the collector worked: both guns fit and were parallel and level. Be sure to fit the guns before you attach the top wing, otherwise you'll graduate as a contortionist extraordinaire trying to get all the gun assembly into position.

Speaking of guns, the Eduard PE set also provides two cooling jackets for them. I found these to be quite good. I annealed the jackets and then rolled them to shape with the various doweling and rods in my 'Hold n' Fold.' If you do this, watch for which end of the jacket fits over the receiver: these parts go on one way only. Or, more accurately, they'll fit either way but one way is backward: place the wide end slots to the rear and the small circular

holes to the front! To ensure that the slotted front of the jacket fits nicely, I simply cut off the muzzle, slightly shortened the barrel, then attached the PE front of the jacket, then CA'ed the muzzle back into place. The rest of the gun PE was attached using only Future floor wax. There's no stress on the parts and the Future allows precise positioning before it dries. Two bits of plastic rod formed the cocking handles and, when painted and married up to their feed trays and cartridge collectors (as modified), the guns were ready for fitting.

Continuing with the turtledeck, I opened a second hole on the right side to accommodate the oil filler neck, scratchbuilding a cap to fit. I also opened up the two round holes just forward of the machine gun mounting position: these are for the aileron cables that come up from the pilot's controls and lead into the wing. The deck was painted with a solid coat of the Gunze Sangyo Olive Drab: both

the deck and the axle winglet were finished in this manner.

Assembly

The two interplane struts are each moulded as one long strut that runs from the bottom wing, through the mid wing and into the top wing. It did require some fitting, cutting and sanding to get the struts to fit properly in the mid wing so that they would sit properly in the bottom and top wing slots, but once in place, they were sturdy and straight. Best to modify the midsection of the struts, so that they fit into the slots provided in the midwing. Get these painted red and then move on.

Now we get to some assembly. First, the lower wing is fitted into its slot in the lower fuselage and glued in place. Get this as level and square as you can, as the fit and sit will affect the other two wings. Place, but do not glue, the interplane struts into the middle wing. Fit the middle wing into

its recesses in the fuselage, just ahead of the cockpit and then fit the turtledeck in place. This is probably the most fiddly part of the build, as you are confirming the fit of the lower wing, fuselage, turtledeck, middle wing, interplane struts and firewall... all, more or less, at once. **(Photo 8)**

I dry-fitted the midwing in place (fitting the interplane struts into their slots), then fitted the turtledeck over it and taped that into place. Now we make any minor adjustments to the wings, moving the midwing a bit here and there until it lines up with the lower wing. Eyeballing the two leading or trailing edges, one over the other, helps here. Once happy, I lightly taped the wings in place and dry-fitted the firewall to check its fit. Everything worked out all right except for a slight gap between the side of the turtledeck and the fuselage. That not being excessive I glued everything in place, tacking parts together with CA and then applying liquid glue sparingly along all seams. I subsequently filled the gap with a little thinned white glue and touched it up with the Olive Drab. **(Photo 9)**

Engine Installation

Now I could fit the engine and cowling. This is where the fit problem with the

engine shows up, so, (as noted above), I cut down five of the nine cylinder heads. Fitting the engine so that the other four heads were exposed below the cowling faceplate, I slipped the cowling into place: no problems here. This is confirmed by checking the location of the propeller shaft as it exits the circular hole in the cowling: if it's at or near dead centre, you're good to go. A little CA and liquid glue and the engine/cowling assembly was home free.

Undercarriage

The undercarriage was another finicky assembly. I finally simply glued the v-struts into their recesses on the axle aerofoil as neatly as possible, inverted the fuselage, set the struts into their respective location holes and played with the structure until it was more or less aligned. When dry, the assembly was removed and Mr. Surfacer 500 used to fair the struts more neatly into the aerofoil surface. Once sanded, smoothed and painted, the assembly was offered up to the inverted fuselage, the struts glued in place, then left to dry completely. Once dry, I fitted turnbuckles made of thin, twisted wire into drilled holes, then completed the rigging with stretched sprue and white glue. Tires were painted a

medium grey: there were no black tires on First World War aircraft!

Propellor

The kit provides two different propellers: the more commonly used Axial; and the Garuda. I've seen some very nice painted finishes on propellers, but I had heard of another aftermarket item: accurate, hand carved wooden propellers for First World War models, produced by Martin Digmayer in the Czech Republic and distributed through Copper State Models in the United States. I ordered a few of these propellers in both 1/48 and 1/32 scale, as well as the propeller bosses and hardware (PE) and was very happy with the product. **(Photo 10)**

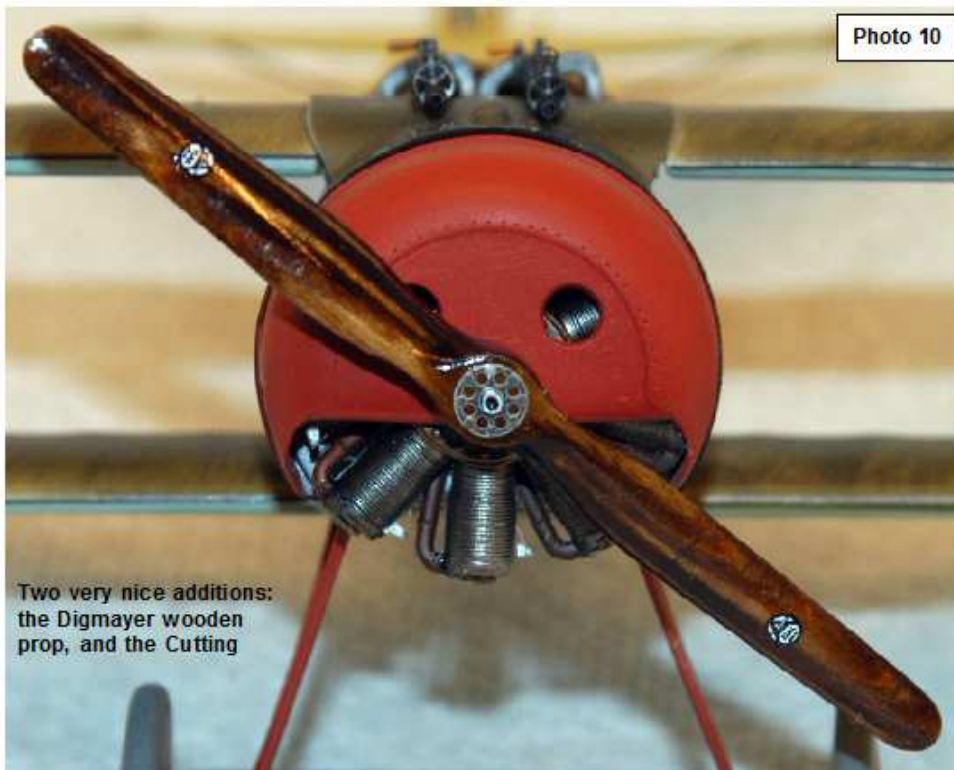
Having attached the PE hardware using Future, I applied the Axial decals from the Cutting Edge Triplane sheet (see below). Once dry, a thin coat of Dullcote was applied, just enough to cut the glass-like shine to a smooth sheen.

Rigging

I used stretched sprue for all of the rigging: there isn't very much on the Triplane and what there is, is in short lengths. The double aileron control cables are very evident in this scale and are a challenge to get to sit properly with the airframe fully constructed. Fortunately, I was able to pass the contortionist exam, thanks to a pair of angled tweezers!

Markings

The kit comes with a very extensive decal sheet, providing markings for four different aircraft. For my model, however, I used one of the Cutting Edge sheets, "Fokker Dr.I, Part 2", (CED32067). This sheet provides markings for three aircraft and is superb. Every possible cross, line, stencil, trademark, part number and personal insignia is included. Individual information sections for each aircraft are included. A separate airframe diagram for just the stencils alone is provided. Did I say this sheet was superb?! The decals reacted well to the Micro-system, causing no problem in application. When all was done, a thin application of Dullcote tied everything together. As a final note, I





regret to say that Cutting Edge is no longer in production as of early 2008.

Conclusion

The Roden Triplane is a fine model notwithstanding its idiosyncrasies and I can recommend it for modellers with average experience. There are many colour schemes for this aircraft, a fair number of which do not call for the application of streaked camouflage. A very nice model is possible: good luck!

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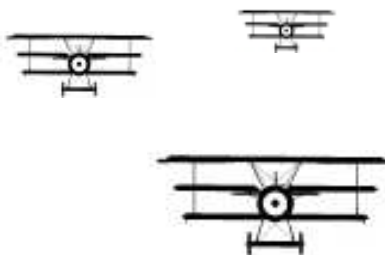
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<http://www.fokkerdr1.com/index.htm>

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About the author:

Gary Barling was born and raised in the Toronto area and subsequently served 40 years in the Canadian Army. He's 64 and has been retired since 2004. Modelling since 1955, his main area of interest is aircraft, with strong minors in armour and ships. Gary's been a member of IPMS Canada since 1965 and currently maintains dual citizenship in both IPMS Ottawa and IPMS Farnborough in England.



Canada's Third Generation Light Armoured Vehicle - A Conversion in 1/35 Scale

By Andriy Bass,
Ottawa, Ontario

(Note: As this article was being prepared for RT, the news came that Andriy's LAV III took a Silver award in the Advanced category at the April 2009 AMPS competition in Aberdeen, MD. This was well-deserved recognition for an excellent model. Ed.)

INTRODUCTION

Since 1999, 651 Light Armoured Vehicles, Generation III (LAV III) have been taken into service with the Canadian Forces (CF). LAV IIIs are a vital part of the Canadian Army's current operational doctrine, notably in Afghanistan, where they play a critical role in combat and support operations.

REAL MODEL CONVERSION

Early in 2008, I first heard of the Real Model LAV III conversion coming for the AFV Club M1126 Stryker. When the conversion kit became available, I immediately placed an order.

My first impression was that it was a complicated kit, with a multitude of resin and



photo-etched parts. The quality of the resin conversion pieces was very good, with only a few air bubbles in some of the components.

The large casting of the upper hull was not warped and a test-fit to the AFV Club Stryker lower hull was positive. The distinctive turret looked very nice and I found that it fit the resin upper hull with no gaps.

One of my first observations was that the eight resin tires were all identical and therefore needed some modification or replacement (of which more later).

It was also apparent that some of the more complicated photo-etched components needed to be soldered to provide structural stability. I also found that some of the appliqué

Heading photo: This illustrates the importance of correctly depicting the build-up of dust and dirt on the lower hull and wheels of the LAV III as seen on vehicles in Afghanistan. This cannot be done in one shot, but in multiple sessions, and varying the tones of the paints used to depict the dust and grime.

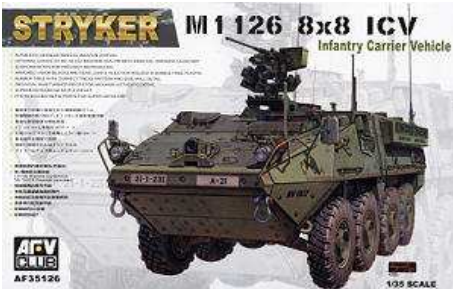
armour attachment bolts would need to be replaced, as they were malformed. Photos of in-theatre vehicles revealed that several minor details were missing from the kit components. I thought the instructions for the assembly of the resin components were average, and several of the assembly sequences were lacking clear directions in several areas. On the other hand, the instructions for the assembly of the photo-etch components were very good with only a few minor mistakes in the assembly sequences.

THE KIT

My model represents a generic LAV III used by the CF in Afghanistan during 2006-2008. The basis for the Real Model conversion is the 1/35 AFV Club M1126 Stryker kit. I found the relatively high cost of the conversion kit reasonable, given the subject and the overall



Side view before painting, showing corrections and extra detailing made on the kit and conversion. Note the modified resin wheels; the Real Model kit wheels are copies from a single master, showing no variation in Michelin logo location.



me on to finish the model in a relatively short period of time (one year!).

THE TURRET

The basic shape of the Real Model turret is good, and the exterior components of the turret are a nice representation of the real vehicle. The conversion kit gun barrel is from Barrel Depot. Produced from aluminum with a brass muzzle brake, the detail on this prominent LAV III feature is very nice.



The turret antenna was scratch-built as the kit example was poor in detail. All strapping on the turret and hull was made from paper and the buckles were generic photo-etch pieces.

quality of the resin and photo-etch parts. There were several new finishing techniques that I wanted to try for the first time during the painting and weathering phases of my model build, which spurred

The major problem I found with the turret is the stowage baskets.

If you follow the kit instructions for their assembly, it will result in a poor fit with the resin turret. I found that frequent dry fitting of the basket components ensured a reasonable fit to the turret. The resin-bending jig for the basket frames is the wrong shape for achieving the correct profile of the frame supports, and the frame wire included in the kit is too thick. To solve these problems and achieve a good fit of the baskets to the turret I used the photo-etch mesh as a template or guide for bending brass wire to the correct profile of the basket

frames. Once satisfied with the shape of the frame supports, I soldered the brass supports and the mesh together for a secure assembly.

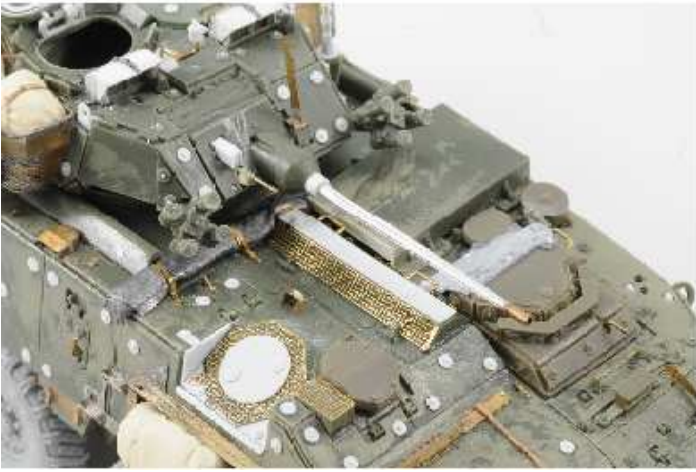
I identified several minor problems with turret component moulding and accuracy:

◆ I replaced several of the appliqué armour mounting bolts and the turret lifting lugs with better styrene representations, as well as fabricating a better representation of the antenna mount.

◆ The vision devices for the commander and gunner were missing important details such as the covers, visors and strapping. I re-sculpted the shape of the vision devices using Magic Sculpt because the resin part was the wrong profile and too small.



The extra details added to the turret. The protective visors for the sights were scratch-built, as were the machine gun mount and gun mantlet TV camera. Extra details were added to the turret hatches and the bins were filled with stowage sculpted from 2 part epoxy putty.



The top of the engine air intake was rebuilt, as there was not enough space to add the two grab handles. The protective canvas covering the driver's hatch hinge was fabricated from lead foil, as was the small tarp attached to the rear of the engine exhaust. The coaxial 7.62 mm machine gun barrel was fabricated from several short lengths of small diameter brass tubing.



Real Model did not provide the small armour plate mounted below the winch compartment. Online photos provided adequate information for scratch-building a replacement. A bag with strapping was sculpted and inserted into the winch



The area near the octagonal grill was rebuilt because the Real Model rendition was poor. Reference photos aided the fabrication of the multiple styrene parts necessary to produce an accurate depiction of this area. The styrene side panel of the front lower hull was necessary as Real Model did not provide the correct piece.



The arms for the side-view mirrors were fabricated from brass wire and tubing to provide a better scale look. The two front wheels were turned sideways slightly to give character to the model- the suspension arms were slightly modified to match.

◆ I scratch built the missing visors from 0.005" sheet styrene and fashioned strapping for the vision devices from strips of lead foil.

◆ The hinge mechanisms for the commander's and gunner's hatches were over simplified. I consulted reference photos and scratchbuilt a more detailed representation of the hinges and the hatch stop mechanisms.

◆ I did the same for the inside face of the commander's hatch where the detail was not representative of the actual hatch. This involved fabricating a new hatch lever and locking mechanism.

◆ The kit's representation of the turret gun camera is too small and soft in detail. I fashioned a larger and better-detailed camera using rectangular styrene strip and rod. I also

replaced the co-axial machine gun (MG) as the resin representation of the MG is too simplified and bulky looking. The MG body was replaced with a resin part from Legend's M240 and the barrel was fashioned from two lengths of brass tubing.

◆ I also made some modifications to the commander's MG. I found the resin pedestal mount inadequate and scratchbuilt a new mount using styrene and brass rod. I replaced the kit C6 7.62 mm MG with a C9 5.56 mm weapon, using a modified Tamiya SAW with additional details and a new ammo box holder scratchbuilt out of 0.005" sheet styrene.

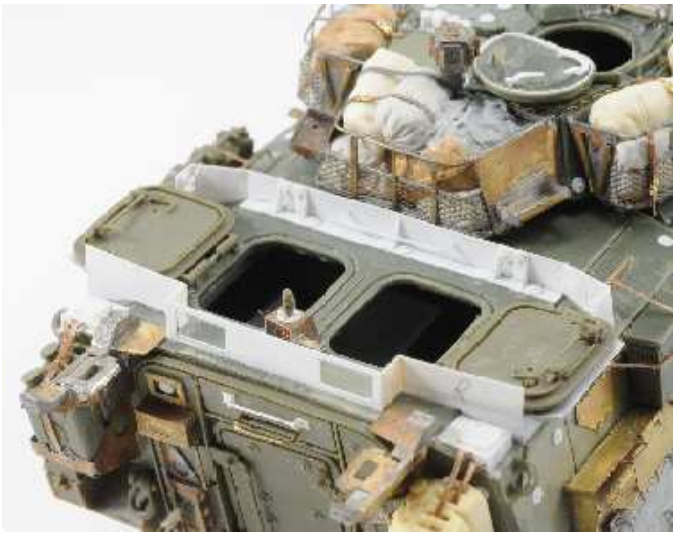
The final phase of the turret construction included fabricating turret handles from brass wire provided in kit and adding some turret basket stowage, which was a combination of spare plastic, resin and scratchbuilt packs and

rolls. I fashioned strapping from lead foil strip and the buckles were sourced from the Lion Roar Stryker photo-etch set.

THE HULL

The assembly and fit of the lower hull of the AFV Club kit presented no problems. The fit of the resin upper hull to the plastic lower hull was generally good with the exception of the rear of the upper hull, where there was a slight gap relative to the lower hull. The gap was filled with some styrene strip and CA glue. There was a slight gap where the upper hull joins the lower hull on the undersurfaces of the hull sponsons. I filled these gaps with Tamiya putty and sanded smooth.

The front lower 'cheek' panels of the LAV III differ from those on the US Stryker. Real Model does not provide the proper LAV III panels and they need to be fabricated by the



Here are details of the scratch-built protective shield for the rear gunners on the LAV III. Real Model provides a photo-etch version which does not match photos of the real armour. Real Model does not provide adequate templates for fabricating the turret stowage baskets so a little trial and error was needed to correctly shape them. The antenna bases at the rear corners of the upper hull were too small and were replaced by larger examples of the correct size and shape.



Here is the stowage sculpted for the rear deck stretcher from Epoxy-Sculpt. The turret's C9 5.56 mm machine gun was a Tamiya SAW with extra details to reproduce the Canadian version.



Rear view displaying rear ramp detail and medical stretcher with scratch-built stowage. Spare wheel rack was an exercise in patient soldering – no instructions were provided by Real Model for framing this rack. Jerrycan is a MapleLeaf Models accessory.

modeller. I made mine out of sheet styrene. Additionally, the attachment studs for the winch apparatus on the front glacis plate are positioned too high and should be shortened. I cut them off and replaced them with scratchbuilt styrene studs.

I was not satisfied with the appearance of the supporting structure of the engine air intake. On the Real Model kit the structural detail was horizontal, but in fact it should be inclined at about a 30-degree angle. I rebuilt the supporting structure and added some detail that was missing.

The photo etch protective blast panels for the two rear sentry positions in the Real Model conversion are inaccurate in shape and appearance. I replaced these with my own scratch built styrene panels of the correct profile using appropriate reference material. The ends of the frame are not open on the real vehicle and I fabricated covers for each.

I replicated the protective dust cover for the driver's hatch hinge using lead foil, instead of using the suggested AFV Club vinyl part. There is no spare wheel holder on the rear ramp provided in the Real Model kit, with the exception of an illustration to assist you in scratch building one of your own. I carefully fabricated my own by soldering together lengths of brass wire of the correct profile. I used photos of the holder



This photo illustrates the numerous photo-etch details added to the rear ramp area of the vehicle.

on the real vehicle, and it took me only one evening to complete.

I added the circular armour plate to the octagonal shaped engine deck intake and another plate to a rectangular intake. Handles on the hull were fabricated from brass wire of appropriate diameter

With the minor additions and corrections made to the upper hull, I now added the fine photo-etch details to the exterior of the upper hull and I fabricated the electrical conduits to the lights/horn assembly from some small diameter solder

I sculpted a pack to fit into the winch compartment and I made some straps out of paper to hold the pack in place. Buckles were sourced from a Voyager photo-etch set. The rolled tarp on the engine deck was fashioned from lead foil and strapped with photo-etch parts. I found a resin pack in my spare parts box and placed it below the engine intake on the right side of the vehicle.

The Real Model kit provides you with three 20 mm ammo boxes. I used one of them on the turret and another was placed above the tool holder on the right side. Being durable, waterproof and dustproof, various-sized ammo boxes are used as containers for various gear, small tools, clothes, etc. The conversion set does not provide the modeller with any 25 mm ammo boxes. This seems an odd oversight, considering that the LAV III crews would have ready access to a steady supply of them to replenish the vehicle's ammo supply.

I used a total of six jerry cans for the model; a combination of AFV Club and Maple Leaf Models cans. The pioneer tools are a combination of AFV Club and Voyager resin items

As mentioned earlier, Real Model provides you with eight identical resin copies of the same pattern of wheel. The Michelin logo, inflation stem, and tire bulge is in the same position on each wheel, and I had to come up with a solution to this problem.

Additionally, the tires provided in the kit are a bit small in diameter (maybe there was shrinkage in the moulds in my case?). I made four bulged tires using the AFV Club wheels and then made multiple resin copies of each; the result was that I had a variety of wheels with the logo and the bulge in different positions, making for a more realistic appearance.



Attachment points for the additional armour panels were fabricated from punched discs of 0.010" plastic and the bolt heads were sliced hexagonal plastic rod. The stowage rack for tools was carefully soldered so that the hinges remained workable. They were made from brass tubing and rod, not included in the kit.

The jerrycans over the side stowage rack are for water and came from the AFV Club Stryker kit, as did the fuel cans mounted on the back. The photo-etch brackets above the wheels are clips that will hold the tow cable in place.

PAINTING & FINISHING

I primed the model with Tamiya Grey Primer. Consultations with some experts led me to believe that the Tamiya NATO Green would not be representative of the Dark Green in which current Canadian vehicles are painted. I found that a mixture of Tamiya NATO Green with Deep Green in the ratio of 3:1 gave me the colour that I was looking for. I thinned this mixture with Tamiya Lacquer thinner in a ratio of 1:3 and, using my Iwata, airbrushed three thin coats on to the model. I let it dry for couple of days.

I then darkened my green mixture with some Tamiya Black and Brown and airbrushed selected areas of the lower hull with these paints to give some shadow effects. Likewise, I lightened my green paint mixture with Tamiya Buff and airbrushed selected areas of

the upper hull to highlight the selected surfaces of the vehicle that would be in direct sunlight. This helped to break up the monotone green paint finish of the model.

Before beginning the highlighting of the raised surfaces and structures of the model, I airbrushed a moderately thinned coat of Tamiya Buff to the lower edges of the upper hull in a random manner. I did this so that any highlighting would not be obscured by a post dry-brushing, dust application.

My next step was to create subtle highlights on the vehicle's exterior surfaces by using a modification of the traditional dry-brushing method. I used an old Tamiya 3 mm brush that I modified by cutting off the end of the bristles to create a chisel tip that would be suitable for dry-brushing most of the large

surfaces of the vehicle. I did the same to a #2 brush (1.5 mm wide) that would be used for dry-brushing very small structures on the model. My modified dry-brushing technique involves using a variety of Humbrol greens and tans mixed with Windsor-Newton Titanium White and Yellow to create very subtle highlight paint mixtures that would not greatly contrast with my basecoat of Dark Green. I removed more paint off the tip of my brush then is traditionally left before beginning dry brushing. I have to do several repetitions of highlighting on a given surface or a structure but I gain better control of the highlighting effects. This results in a longer period of time to finish the process but you are rewarded with more realistic highlighting effects.

I did some detail painting of various sub-components of the vehicle. The 25 mm



Note the three miniature water bottles attached (with the Cdn soldier's universal tool, green 'gun tape') to the turret's right side antenna. Crews insert chemical 'glow sticks' into the bottles as a quick and easy method for night time vehicle identification. Black pigment was applied around the engine exhaust to replicate the diesel exhaust 'gunk'.

The various stowage items were finished in a variety of olive drab and green tones so as to replicate stowage observed in images of in-service vehicles. These vehicles have a lot of kit attached to the outside and it is important when modelling an operational vehicle to keep things looking a bit cluttered.



A splash of colour on a military vehicle always helps in breaking up the monotony of an otherwise uniform colour. In this case a red-painted tarp sits in the rear turret basket.

The upper deck sees a lot of wear and tear from the crew moving about the vehicle. Paints and pigments were used to replicate the effect of many combat boots tromping around.

Bushmaster barrel was airbrushed matt black and highlighted with graphite. The C9 5.56 mm machine gun also was painted black and the MG mounting and ammo box were airbrushed with a green colour. The dust covers for the driver's hatch, mantlet cover and rolled tarp were hand painted with a dirty Olive Drab (OD) colour mixed from Humbrol paints. The commander's hatch pad was painted with a dusty black colour. The aerial identification tarp was brush painted with various shades of red using Humbrol paints. The crew gear bags, vehicle rolls and vehicle tarps were hand painted in slightly different shades of OD colour. The strapping for vehicle equipment and the stowage was hand painted with very

faded canvas colour.

The tow shackles were painted a light grey colour with the pins painted a faded red colour.

I made up my washes by mixing oil paints with mineral spirits. I applied two dust colour washes made up of Humbrol #103 Matt Cream and #71 Satin Oak, mixed with Titanium White oil paints. Using a fine brush, I applied these mixtures to places where dust would collect on the real vehicle, such as gaps between appliqué armour panels, mounting bosses, bolts, etc. After that, I applied a dark colour wash to bring out detail on the surface of the model using

faded OD colour that almost looks like

I applied Model Master Acrylic flat clear coat to seal the washes and dry-brushing.

FINAL ASSEMBLY

After the major and minor components of the vehicle were painted and weathered, I added the fragile and/or delicate parts that would have been broken during the painting and dry-brushing process:

◆ A towing cable was positioned on the left side of the vehicle using the kit photo-etch cable brackets. Cable ends and their mounting points were scratch built and the cable itself was taken from a length of Voyager woven steel wire that was 0.44 mm in diameter. I painted the tow cable and the cable ends in a variety of rust colours.

◆ I did not want to mask the semi-transparent armoured glass ports in the rear



Attaching the tow cable had to wait until the base model was finished. It is stowed along the lower edge of the upper hull along the left side. Painting the headlights and final attachment of the side view mirrors waited until the final finishing phase of the model.



It is vitally important when painting a model with a single colour exterior finish to vary the tones of that finish. Oil paints were mixed into the base finish in a restrained manner to subtly brighten and darken the base paint.



blast shield and therefore I left their fabrication and placement to the end of the painting process. The glass ports on the real vehicle are a bluish-green colour; the Real Model kit does not include any coloured acetate to use for viewing ports. My source for a suitably coloured clear plastic was a sci-fi Gundam base, which I cut up into small sections and then sanded to the required thickness.

◆ I used the AFV Club Stryker pioneer tool set, as it was perfectly suitable for a Canadian LAV III. The vehicle tools include two shovels, a sledgehammer, pickaxe and an axe. On the real vehicle, these items are stowed in two tool holders mounted on the sides of the upper hull at the rear of the vehicle. Real Model provides nicely done photo-etch representations of the toolboxes. I had previously painted the tool holders and left the stowing of the painted tools to the end. I painted the tools with appropriate paints to match the colours of the plastic, wooden and metal parts of the individual tools. I attempted to imitate the rusty appearance of the shovel blades and pickaxe head. The sledgehammer head appears to be finished in a red colour on the real vehicle and I painted it with a suitable colour.

◆ I had previously painted and weathered the spare tire that is stowed in a holder on the rear ramp door of the vehicle. On the actual vehicle, a heavy-duty strap and clamp hold the spare wheel in place. I fabricated the strap from lead foil and the photo-etch clamp came from the Eduard set for the Challenger II. I painted the strap in faded Olive Drab colour and the clamp in a steel colour.

◆ I fashioned the antennas from lengths of stretched sprue. The length of the antenna on the real vehicle is 3.25 metres; diameter of the base of the antenna is 30 mm, which narrows to 6 mm at the tip. I painted the antenna in a dark green colour and then attached the clear resin representations of the plastic water bottles (into which chemical 'glow-sticks' are placed) that serve as vehicle night recognition devices. These came from a Tamiya kit.

◆ I used the AFV Club Stryker plastic lenses for headlights and taillights, and used Future Floor Wax to glue them in place.

◆ The mirrors from AFV Club kit were modified – the pivot mechanism was scratchbuilt from brass strip and fine tubing and the arm was made of brass wire. I made an extra mirror for the vehicle commander, which is positioned on the right side of the turret close to commander's sight. I used Echelon Fine Details reflective stickers for the vehicle mirrors.

◆ The C9 5.56 mm machine gun was attached to the pintle mount in front of the commander's hatch and a C7 5.56 mm rifle from Maple Leaf Models was positioned in the left side turret basket.

CONCLUSION

The whole project took me longer than I expected, but was quite enjoyable and very informative. It was my first 'more or less' serious model of an armoured vehicle in 1/35. I learned some new painting techniques, ones that are quite different from those I would normally use on aircraft. Not

everything turned out the way I wanted it, but it sure was a great experience for me; hopefully my next armour model will be even better!

ONLINE REFERENCES

combatcamera.forces.gc.ca

Main ref - the photos from Combat Camera website. This is an outstanding resource for Canadian Army related subjects.

primeportal.net

Prime Portal has an excellent walkaround of the LAV III - covers all aspects and components of the vehicle - only with appliqué armour removed...so you have to take that in consideration when using those pics for scratch building parts for LAV

And some pics I got just from a standard Google search online...

PRODUCTS USED

mapleleafmodels.com

Some parts came from Voyager set PE35162, available online

ACKNOWLEDGEMENTS

There were couple of people who I want to thank for helping me with this project:

Barry Maddin
Steven Millstone-Turner
Sid Arnold



About the author

Andriy Bass is 29; before moving to Canada in 2003 with the rest of the family, he lived in Odessa, Ukraine. After graduating from the Odessa Maritime Academy, he worked at sea for a couple of years. After moving to Canada, he settled on a shore-based life.

Andriy first got hooked on modelling at the age of 6. His first models were snapped together with his dad, usually in one evening.

His return to 'serious' modelling happened at age 15-16; that's when he discovered putty, paints and the joy of airbrushing.

For the last several years he's been trying hard to keep his stash of kits limited to modern subjects in 1/35 scale. However, other scales and subjects appear on the workbench occasionally.

Andriy is a member of the Ottawa-Carleton Armour Modelling Club.