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IPMS/USA 2015 National Convention

Text and photos by Steve Sauvé (except as noted)

IPMS Eddie Rickenbacker hosted the IPMS/USA 2015 National Convention, popularly known as the 'Nats'. This is the third time that Columbus has hosted the Nats and it showed in the smooth running of the show from start to finish. The Hyatt-Regency hotel and its attached convention centre is a great venue and provided a good central downtown location. There is a seemingly endless variety of bars and restaurants within walking distance of the hotel, and even a few brewpubs that put paid to the myth that Americans can't make a damned fine beer.

The 2015 Nats hosted approximately 850 registered modelers and the contest tables held 2431 entries with 2780 total models.

We were very pleasantly surprised to find a total of 37 entries that we felt qualified as 'Canadian Subjects', and a couple more that were 'close, but no cigar' (an RAF DHC-1 Chipmunk, and a hypothetical 'CAF' TSR.2. A crack team of IPMS Canada judges was formed and deployed around the contest room to scrutinize the entries and arrive at a consensus as to which was the 'Best Canadian Subject' for 2015. Our thanks go to this year's judges: **Kerry Traynor** (IPMS London), **Duncan MacIntosh** (IPMS London), **Mark Heyendal** (IPMS Ottawa), **Mike Belcher** (IPMS Ottawa), **Harold Homuth** (IPMS Winnipeg) and **David Knights** (Louisville, KY) for their time and keen observation to determine that **Richard Clairoux's** (IPMS Réal Côté) 1/48 CF-105 Avro Arrow stood out as this year's award-winning entry. Richard's model will be featured as a detailed build article in a future issue of **RT**. On the following pages you will find photos of all 37 entries along with some detail of the winning Arrow. We are also sprinkling our coverage with short comments submitted by IPMS Canada members who were able to get to Columbus this year.

A trip to the Nats should be on every IPMSer's bucket list, at least once in your life. For 2016 the big show will be in Columbia SC (**ipmsusa2016.com**), and 2017 will return to Omaha NE.

1/72 T2V Seastar

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T-Bird to Seastar

I was very surprised when **Sword** released their 1/72 scale kit of the **Lockheed Seastar, kit #SW72072**, as it was a rather obscure aircraft in both the Navy and Marine Corps inventory. Often confused with the T-33, the Seastar was developed as an improved carrier training aircraft after less-than-satisfactory results were achieved with the addition of a tail hook and some strengthening to the T-33. To add to the confusion, the Navy/Marine version of the T-33 was designated as a TV-2 as opposed to the T2V designation of the Seastar. While not a well-known aircraft, it nonetheless was in the inventory for a while in both service branches. While the T-33 was built as a two-seat replacement for the P/F-80, the T2V was built primarily for training purposes and carrier ops. Not spending a lot of time in squadron service, it was assigned as a training aircraft at Pensacola from 1958 till 1960, after which time the more powerful **North American T-2 Buckeye** showed up on the scene and became the primary training aircraft for the Navy and Marines. Three schemes are provided in the kit: Two orange/red and white aircraft, from NAS Memphis and MCAS El Toro respectively, and one overall grey machine for a Washington-based aircraft.

Construction begins

I've done some preliminary work in **Photo 1**, bending and adding both the pre-coloured instrument panels and side consoles. I have to admit that the pre-coloured sets do keep things in scale versus trying to hand-paint all the details in that scale. I soon noticed a short-shot in the kit and that was the absence of a rear cockpit tub being included in the kit. Luckily, I have some scratch-building skills and so I boxed off the rear pit, the white plastic in the photo, and proceeded on from there. I had to reduce the length of the left side intake trunking after I built the rear cockpit 'box' but as luck would have it, there was sufficient intake length left to make the cut-out not all that noticeable, **Photo 2**. A quick squirt of **Testors Model Master White** completed that area of the model.

Some filling was needed over the wing-to-fuselage joint as well as around the intakes, and thankfully, the homemade rear tub fit well when the fuselage halves were closed up. Adding the horizontal tail surfaces in **Photo 3** required yet a bit more filling but overall, the parts fit pretty well. The home-made parts lend themselves well to the rear cockpit. Two well-detailed seats are provided. After the addition of pre-painted face curtain rings, along with some paint sprucing up, I set them aside for installation after painting. With the one-piece nose wheel and strut along with the main gear struts, **Photo 4**, the model is all primed and ready for paint.

Photo 5 shows the result of an airbrushed coat of **Testors Model Master Gloss Light Gull Gray** (**LGG**) on the model. While perhaps not the best background I could have chosen, the following image, **Photo 6** shows not only the LGG well but also the natural metal tail and wing leading edges, the black inner halves of the wing tanks and the black intake lips.

In **Photo 7**, using the base LGG as a starting point, with just a tinge of brown added to my homemade mix, I used this slightly dissimilar colour of grey for the upper and lower wing box and tailplane centre sections. I used **Testors White** enamel to spray the gear legs and wheel wells.

In **Photo 8** I've applied pencil panel lines over the whole model. While the dissimilar colour of grey broke up the overall scheme a bit, the addition of the penciled panel lines further segments all of that grey.

Having chosen a scheme from the kit options, all kit decals have been applied in **Photos 9 and 10**. Note that the ejection seats have been added at this point. The instructions tell the builder that the wing walkway outlines are in red, while the decals provided are done in black. So I had to resort to my decal stash to come up with thin red lines to replace the black

ones in the kit. That meant carefully cutting away the small 'No Step' decals that were a part of the black walkway items. I simply added them just inside the red striping border when they were dry.

I vacu-formed the kit canopy and in **Photo 11** both the windshield and canopy have been masked and ready to be sprayed. While very tedious to mask, the end result was worth the effort. I first sprayed them with **Floquil Engine Black** and followed that with **Testors Model Master Light Gull Gray**. The black colour would show up on the inside of the frames while the LGG matches the overall grey of the scheme. As is always the case, it took an hour of tedious masking, five minutes to spray both shades, including a quick clean-up in-between black and LGG, and about a minute to pull off all the tape.

I added canopy locks from small sections of stretched sprue and used short black decals strips on the cockpit sills to represent the canopy locking hook receptacles – kind of an 'eye fooler'. **Photo 12** shows the detail of the cockpit and seats, the canopy and windshield in place and the very nice kit-provided pre-painted shoulder straps. Dipping into my decal reserves, I also added some small instructional decals to various places in the cockpit to busy things up a bit. I could very easily get spoiled with all of these pre-painted aftermarket items! The remaining photos are of the finished model. Unless one is looking closely, from certain camera angles, the T2V does look like a 'scrunched' T-33. To replicate the wing tank navigation light locations, the small nubs on the tanks were first dotted with **Tamiya Flat Aluminum** and when both were dry, top and bottom, I dotted each area with red on the left and green on the right tank. That was followed by a small dollop of **Tamiya Clear**, and they are visible in the finished photos. I added a black wash to the speed brake holes and after a couple of coats, they were black enough and only required a flat coat. A little grey pastel dust was added to the white wheel hubs to tone them down a bit. I used short strips of black decal striping to provide clearly-defined banding edges on the tail hook, also visible in the finished photos. Try as I might, I have never been able to achieve a perfect straight edge when trying to hand-paint those however the decal strips did the job. I used **Model Air Black/Grey** for the tires which is a nice shade and the paint covers in one coat. It took me a little over a month of on and off work to complete the kit but the end result was worth it. While not the flashy red/orange and white scheme usually identified with the T2V Seastar, the alternate grey scheme offered in the kit provided a nice change. Decals went down well and I used **Micro Sol** and **Solvaset** to secure them.

Conclusion

It's nice to see a kit manufacturer issue a kit like this which fills a gap in the trainer aircraft collection. **Sword** is to be commended and lets hope they continue issuing very buildable kits of other aircraft which have never been offered in the past. The T2V Seastar is definitely a start in the right direction.

1/35 Canadian Army Leopard 2A6M Can

By Barry Maddin

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Truro NS

The Leopard 2 was developed by Krauss-Maffei in the early 1970s for the West German Army. It first entered service in 1979 and succeeded the earlier Leopard 1 as the main battle tank of the German Army. More than 3,480 Leopard 2s have been manufactured. The Leopard 2 first saw combat in Kosovo with the German Army and in Afghanistan with the Danish and Canadian ISAF (International Security Assistance Force) forces.

In October 2003, Canada was planning to replace its Leopard C2s (which were the original CAF Leopard C1 tanks upgraded with improved armour and turrets) to the wheeled **Stryker Mobile Gun System** (MGS), based on the proven and Canadian-built **LAV III** chassis. However, experience in Afghanistan convinced the Canadian military of the need to retain a tank fleet. Leopard C2s were deployed to Kandahar in December 2006, but by this point in their lives they were almost 30 years old and were proving difficult to maintain. The Canadian government decided to lease 20 Leopard 2A6Ms and three armoured recovery vehicles from Germany for deployment to Afghanistan. In late August 2007, the first Leopard 2s were airlifted into Afghanistan to equip **Lord Strathcona's Horse (Royal Canadians)** armoured regiment. The ***Leopard 2A6M*** is an upgraded version of the standard 2A6 variant with enhanced mine protection under the belly, and internal enhancements to improve crew survivability

The Kit

The kit is the **Hobby Boss (No.82458) Canadian Leopard 2A6M Can**. The parts are moulded in light grey plastic with three frets of photo-etch with a sheet of pre-cut clear plastic for periscope and sight lenses, poly caps, vinyl tracks, a length of cord, a Canadian-specific decal sheet and a printed sheet of MRE (Meal, Ready to Eat) ration packs. The moulding is clean and crisp with some fine mould lines and no appreciable ejector pin marks. The instructions are standard line drawings that are clear and straight forward with 18 steps detailing the construction and an excellent five-view painting and marking guide. However, the colours called out in the painting guide are oddly named with the **NATO Green** being called **Dark Compass Ghost Gray**, (*a colour used on aircraft like the USAF F-15 Eagle*) wherein the colour reference numbers calls it light green. But since the Leopard 2A6M's came in the standard three-colour NATO scheme (see sidebar notes on this page)

The Chassis

As I usually do, I highlighted the photo etch parts called out on the instructions so I wouldn't miss any during the assembly. I then started with **Step 1**, the suspension and road wheels. I really like the use of the poly caps as it simplifies the build allowing installation of the road wheels after the chassis and wheels are painted and weathered. The instructions have you drilling out holes in the chassis bottom to facilitate the installation of the mine protection plate which is a specific feature of the 2A6M. I then primed the chassis with **Krylon Gray primer** and painted the chassis and road wheels **Tamiya XF- 63 German Gray** followed by **Tamiya XF- 67 NATO Green**. I used a circle template to spray the centre of the road wheels leaving the rubber of the wheels the dark grey. I applied the kit decals and they settled down without problems using **Micro-Sol** setting solution. I hand painted the white cross on the convoy marker and then weathered the chassis and road wheels with heavy washes of **Mocha Brown** acrylic craft paint and then installed the road wheels. The instructions indicate the rubber band type vinyl track can be glued with regular plastic cement and unlike others that have made that claim these really do. I masked off the contact areas for the glue and painted the tracks with **Krylon Flat Black primer**, which I have found sticks well to vinyl tracks. I then painted the track guide horns **Humbrol 003 Polished Steel** and when dry polished them with **Q-Tips** to achieve a worn metal like sheen. I weathered the tracks the same as the chassis and installed them. The tracks fit well over the drive sprockets and, unlike some other rubber-band type tracks, weren't too tight. I then applied **MIG European Dust** and **Desert Sand** to the chassis and track followed by a coat of **Testors Dull Cote** (**Photo 1**).

The Upper Hull

Step 7 calls out the installation of the driver's periscope lens from the provided clear sheet but I substituted coloured acetate to better represent the laser protection coating on the lens. Care needs to be taken when making the holes in part M1 (the rear plate) for the slat armour mounts as they need to rectangular in shape, so I used my square jeweller's file which did the trick nicely. Everything went fine until **Step 9** when I glued on the side skirts starting from the rear of the hull. After the glue had dried I was looking at the skirts and released that they were not properly positioned and were too far to the rear. After considerable angst I got out my razor saw and carefully cut the skirts off. I got lucky and they both came off without damaging the side of the hull. I re-glued the skirts, paying proper attention this time to their placement and everything looked fine. I soaked the etched engine fan screens in **Blacken It** and set them aside to install after painting the hull. I also left off the mirrors to be installed later as I would only break them off handling the upper hull.

At this point the big question was, do I install the slat armour now or after I paint the upper hull as the slat armour is tan in colour while the upper hull is the three-colour NATO scheme, decisions, decisions. So I decided to install the slat armour on the upper hull before painting and install the turret slat armour after painting to see which was one was the better option. The plastic slat armour is a little on thick side compared to the available aftermarket photo etch armour but it looks ok and doesn't cost extra. The slat sections were easy to clean up with only thin mould lines to deal with. I glued the mounting brackets to the slats and the slat mounting brackets lined up well with the mounting holes in the upper hull. I glued the brackets into place and the slats fit together without problems. I did marry up the rear end piece with the corner pieces before I mounted them to the upper hull to ensure I got the etched corner brackets on straight and true. All the slat sections lined up nice and tight around the upper hull. I masked off the drivers periscope lenses and primed the upper hull with **Krylon light grey primer**. I then painted the slat armour **Tamiya XF- 59 Desert Yellow** (**Photo 2**) and allowed it to dry for several days.

I masked off the slat armour with painter's **Frog Tape** and **Tamiya tape** and painted the upper hull **Tamiya XF- 69 NATO Black** (**Photo 3**). I used **Silly Putty** (**Photo 4**) to mask off the areas to remain black and shot the upper hull with **Tamiya XF- 67 NATO Green** (**Photo 5**). More silly putty was used to rope off the areas for the application of **Tamiya XF- 68 NATO Brown** (**Photo 6**). With the **Desert Yellow** I touched up the slat armour mounting brackets that had overspray on them and then glued the upper hull to the chassis. The fit was great and I didn't need any putty I just had to touch up the paint at the bow joint. I painted up the mirrors and attached them to the hull and glued the engine deck fan screens in place. I detail painted the hull tools and head and taillights. I weathered the upper hull the same as the chassis making sure the two components blended together.

The Turret (Part 1)

Overall the turret went together well. I used the **Tamiya white cap liquid glue** to put the two-piece barrel together squeezing them together to get a small bead of melted plastic along the joint. Using medium- and fine-grit flex sanding sticks I was able to get a nice seamless joint the length of the barrel. A metal barrel would have been a great addition to the kit.

I did use a little putty to fill small gaps in the joints of the armour plates around the turret end of the barrel. You need to drill out holes for the slat armour mounting brackets on the turret and like the rear plate some are rectangular. You also need to remove some bolt head detail and a weld seam so that the ECM and weapons boxes sit flush on the turret top. Careful cutting and gentle sanding fixed up those areas. I left off the weapons and ECM boxes as they are shown to be a tan colour like the slat armour so I set them aside to be painted later. Everything fell into place but some putty was needed to fill gaps along the rear storage bin and the spaced armour panels on the turret sides. The rear side turret storage baskets consist of a plastic frame clad in photo etch screen. The frame is very delicate but becomes fairly sturdy when all glued together and the photo-etch mesh screen fit well on the frame. I used fine copper wire to add antenna cables to the T Bar antenna mounts (**Photo 7**). I drilled out the tops of the antenna mounts for the **26 gauge wire** I would substitute the kit plastic antennas with. At this point I decide the turret needed a figure to give it some scale.

The Figure

I found what I was looking for with **Djiti Production CDN Tank Crew, item 35035**. This is a French company that produces a wide range of modern multinational figures as well as some WW II and civilian figures. The figure was cast in a light grey resin posed in a sitting position with a water bottle in his right hand. I assembled the figure which fit together

without gaps or the need for filler. I drilled out the heel of the right boot and inserted a brass pin to give me something to hold while painting and then washed it to remove any release agent and skin oil. I primed it with **Krylon White primer** and when dry set it in the turret hatch to see how it would look (**Photo 8**). I normally use oils to paint flesh tones but I wanted to give the Vallejo acrylics a try and was happy with the results. Starting with the face and hands I used **Vallejo 815 Basic Skintone** and applied several light coats followed by a wash of **Vallejo 941 Burnt Umber** to add depth and shadow. I then touched the highlights with **Vallejo 928 Light Flesh**. I painted the desert boots **Vallejo 988 Khaki** and dry-brushed **Vallejo 821 German Camo Beige** over the sides and top of the boot. I gave the figure a base coat of **Vallejo 976 Buff** and a top coat of thinned **Tamiya XF-78 Wooden Deck Tan** (**Photo 9**). I used **Vallejo 872 Chocolate Brown** and Panzer **Aces 345 Splinter Camo Base** to replicate the digital camo pattern of the **Canadian Arid CADPAT (CAnadian Disruptive PATtern camouflage)**. I then used **Panzer Aces 340 Highlight Afrika Corps** to pick out the strips on the helmet and vest (**Photo 10**). I then painted the water bottle with **Vallejo 841 Andrea Blue** and with coiled copper wire added a communications cable to the helmet. The digital camouflage pattern is difficult to replicate and up really close doesn't look all that convincing but at arm's length it conveys the look of the **Arid CADPAT** uniform. More practice is needed.

The Turret (Part 2)

With the figure completed I turned my attention back to the turret and cleaned up the turret slat armour and painted them with **Krylon White primer** along with the weapons and ECM boxes. Like the upper hull slat armour, I painted them I with **Tamiya XF- 59 Desert Yellow**. I then painted the turret with **Krylon Gray primer** and painted a stripe on the bore evacuator with **Tamiya XF-2 Flat White** (**Photo 11**). Using **Tamiya tape** I masked off two narrow strips on the bore evacuator and painted the turret **Tamiya XF- 69 NATO Black** (**Photo 12**). Again I used **Silly Putty** to mask off the areas that would remain black and painted the turret **Tamiya XF- 67 NATO Green** (**Photo 13**). I then masked off and painted the **Tamiya XF- 68 NATO Brown** patches. I applied the maple leaf national identifier decals. The decals went on easily snuggling down nicely with an application of **Micro-Sol**. Pictures of Canadian vehicles in Afghanistan often show inverted clear water bottles taped to radio antennas to hold chemical 'glow-stick' lights for night recognition purposes. Using three water bottles from the excellent **MENG water jug & bottle set** I drilled a 0.5 mm hole in the centre of the bottom of each bottle with the hole drilled the length of the bottle to just about the shoulder of the bottle. The clear blue bottle makes it easy to gauge the progress of the drill bit inside the bottle. Then using a 0.5 mm red automatic pencil lead I cut three lengths just shy of the depth of the holes I had drilled. I inserted the pencil leads in the holes and sealed the bottom with a dab of **Gator Glue** which dries crystal clear. Using thin strips of **Tamiya tape** painted over with a black **Sharpie** Marker I secured the bottles to one of the wire antennas I had made (**Photo 14**). I think this added an interesting element to the bottles on the antenna. I installed the weapons and ECM boxes to the turret and mounted the slat armour. The only problem I had was getting the slat armour across the back of the turret level but with a little fiddling it relented and finally played nice. I weathered the turret with heavy washes of **Mocha Brown** acrylic craft paint and applied **MIG European Dust** and **Desert Sand** followed by a coat of **Testors Dull Cote**. I cut out and installed coloured acetate periscope lenses then glued the antennas in place and secured the figure in the turret hatch. I cut out and glued together several of the ration boxes and with a **Maple Leaf Models Canadian 20 Litre Water Jerry Can** I filled the turret storage bin and baskets (**Photo 15**). I then ran into a problem with the rear turret slat armour dragging on the rear deck. So I added a small 0.040" plastic shim to the rear underside of the turret by the turret ring which lifted the turret up slightly in the rear. This provided the clearance needed without making the turret look like it was falling forward (**Photo 16**). I punched out headlight lenses from clear plastic sheet and glued them in place with **Gator Glue** (**Photo 17**).

Finishing

With the **Leopard 2A6M Can** finished (**Photo 18**) I prepared a wood display plaque by staining it with a mahogany coloured stain and sealed it with clear varnish. I positioned the Leopard on the plaque without the turret and measured and drilled a hole through the chassis bottom and the plaque. I countersunk the hole on the bottom of the plaque and with a flat headed bolt secured the hull to the plaque. I stuck on some small felt pads to the corners of the plaque, glued the turret in place and applied the label I had made (**see article header photo**).

Conclusion

Overall it was an enjoyable build with no real fit issues. I have read some criticisms about the kit like the shape of the rear hull access hatches which are oval in the kit but should be rectangle. However, minor issues aside the completed kit looks great. The **Leopard 2A6M Can** is a mean looking cat, even ‘caged’.

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1/32 Sopwith Triplane

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I feel a sense of loyalty to **Roden**. Long before that New Zealand upstart was even a glint in a certain film director's eye, **Roden** was quietly amassing an extensive catalogue of WWI aircraft kits in all the popular scales. Sure, some of their efforts aren't quite as nice as **Wingnut Wings (WNW)** are and they may not fall together as easily, but **Roden** held fast to an era that most manufacturers wouldn't touch with a barge pole at the time and for that they deserve our thanks and our patronage. The last time I built a 1/32 scale kit I was about 15 so I'm pleased that it was a **Roden** kit that got me back into large scale after all these years. I'm still mainly a 1/72 fan, but I'm sure an occasional foray into other 'lesser' scales won't kill me.

While I have no doubt that the **WNW** Tripe is superior, **Roden's** kit still has a lot going for it, not least of which is the price; about half that of the Kiwi import. The kit is well engineered and for the most part fits together as it should. It gives you the option of a single or twin gun aircraft and there are some interesting decal choices as well, though it's perhaps no surprise that I went with the fairly banal choice of **Raymond Collishaw's** second "**Black Maria**", **N533**. Yes, it's become almost as much a cliché as that pesky red Triplane on the antagonist side has, but you can't argue with the success of the **Black Flight** and its leader. And hey, they were there well before that Red Baron chap flew anything in combat that had more than two wings!

It is an accurate kit with one exception, and to be honest I would never have noticed it if Mr. Rimell hadn't pointed it out in his review in **Windsock Magazine**. The fuselage is, apparently, 5 mm too short. Now that sounds like a lot, and I suppose it is, but honestly, in this scale it really isn't noticeable. Even when compared to the **WNW** Sopwith Pup the error isn't obvious (the Triplane is essentially a Sopwith Pup with three wings, the fuselages are pretty much identical other than the wing mountings). It would have taken a considerable amount of work to correct and it's doubtful I would have bothered even if I hadn't been well into the build when I read the review. Seriously, can *you* tell it's 5 mm short...?!

The Fuselage and Interior

Roden's interior leaves a bit to be desired I must admit. Though most of the major bits of cockpit furniture are present, not a lot of the wooden framework is there other than the thin lattice work stringers moulded to the fuselage sides and one major upright that is in the wrong place. I removed the offending frame and added the missing pieces from 0.030" x 0.040" plastic strip. Rather than painting the frames I did them with thin strips cut from a **Pegasus** wood grain sheet which is much quicker and easier than trying to mask and paint them. Basic interior colour is a mix of **Humbrol Matt Cream** and **Matt White** to represent the linen areas. Missing framing was also added to the rear fuselage where it would be visible in the tail skid cut out. **Photo 1**

For the control cables I used some fine braided wire I found in the beading section of the local craft store. This is 0.012" in diameter and has a clear plastic coating. Burning the coating off with a lighter (being careful not to breathe the fumes of course) yielded lovely braided wire about 0.010" in diameter, perfect for this scale, and the heat gave the bright wire a blued dark metal look. It has a natural curve to it due to the fact that it comes on a reel, I removed the curve by clamping the wire in a vice and hanging a weight off the other end, then coated it with superglue. Once dry it stayed nice and straight, the superglue having the added benefit of stopping the ends from fraying when cut. This was also used for the cable connected to the trim wheel and internal bracing wires with fine stainless tubing representing the turnbuckles on the latter.

The heelboards were replaced with real wood. Not that plastic stuff I tells ya, real wood for that authentic real wood flavour. Similarly, the forward metal bits were covered in **Bare Metal Foil,** or real metal. This is both an homage to full scale construction methods and a testament to my laziness when it comes to painting. **Photo 2**

Unlike the wicker seat typically found in Sopwith aircraft, the Triplane had a padded metal seat covered in leather. The kit part was a good representation therefore it was painted to resemble dark leather with belts made from lead foil and buckles from fine wire. The fuel contents gauge moulded to the starboard lower cabane strut was shaved off and replaced with one from stretched clear sprue and the control stick had a 'blip switch' added from a tiny punched disc. **Photos 3 & 4**

As supplied, the hand-operated pump on the right side of the cockpit was okay, but I couldn't think of a better time to finally try out that **Unimat** lathe I bought off a friend ages ago. After a couple of attempts I managed to turn an acceptable pump from brass stock which I think looks much better than the kit supplied item. The handle from the kit part was used after some clean up, the shaft is a bit of broken #80 drill bit shank. The mounting brackets are cut from 0.005" sheet brass and a spring made from fine wire completed the job. **Photos 5 & 6**

Once the cockpit was complete the fuselage halves were assembled and the engine bulkhead, gun mount and lower wing were added, the fit being quite good on all components so far.

Optional cockpit coamings are included for single or twin gun versions but the lower fuel filler cap on both is in the wrong place and both caps were a bit soft on detail. The incorrect forward filler was removed and filled on the twin gun part, the correct locations were drilled and the edges thinned with a **Dremel** round cutting bit rotated by hand in a pin vice. A scratchbuilt "faux tank" was made from plastic sheet and glued underneath. The filler caps were made from tubing capped with punched discs and topped with hex heads punched out with a **Historex** punch and die set. **Photos 7 & 8**

The kit instrument panel is actually pretty good. Suitably painted and with a few instrument decals it would be just fine, and once the coaming is on and the guns are in place it isn't all that visible anyway. Rather than trying to paint it however - simulated wood grain not being my forté - I decided to make a new one from thin mahogany veneer with **Aeroclub** photo etched bezels, **Reheat** and **Airscale** instrument decals and a few scratchbuilt bits and pieces. **Photo 9** This was then glued underneath the cockpit coaming along with the two cartridge ejection chutes for the Vickers guns. Small pins on the bottom of the chutes locate into shallow holes in the cockpit bottom and a trial fit confirmed my suspicion that this would be a tricky assembly. It was quite difficult to fit the instrument panel into its mounting points on the two lower cabane struts whilst simultaneously maneuvering the chutes into their respective holes, not helped by the multitude of control cables getting in the way. Eventually, after a great deal of persuasive and rather impolite language I managed to get everything to line up and the coaming was firmly attached with liquid poly cement, the chutes held in place with tiny drops of superglue.

The Fuselage, continued...

Roden moulded the tail skid, its mounting and the stabiliser trim screw as one piece integral with the fin and rudder. **Photo 10** Though this does simplify assembly, it looks somewhat crude and heavy handed so I decided to remove the offending parts from the fin and rudder and replace them with scratchbuilt items. It's worth spending a bit of time on these as this area of the rear fuselage is uncovered on the Triplane and therefore easily seen. The tailskid was carved from a bit of thin wood cut from a stir stick and the mount was constructed from plastic strip and 0.030" rod. The trim adjustment screw is two short lengths of telescoping aluminium tubing, one fitting inside the other. Both the Sopwith Pup and Triplane had a steerable tailskid which necessitated an opening in the lower fuselage to allow it to move. This is present on the kit parts but is somewhat undersized so it was enlarged using a file and holes were drilled in the fuselage bottom for the control cables. The new tailskid parts are an improvement on the kit items, however the trade off is that this section is quite weak due to the fact that there is very little for the tailskid mount to attach to. I console myself with the thought that the kit parts probably wouldn't have been much better in this respect.

The horizontal stabiliser was now added after removing the elevators and drilling holes with a #80 bit for rigging. While I had the pin vice out I drilled all other holes for the rigging and control cable exits. Ailerons and rudder were also removed at this point and set aside until final assembly.

The Wings

A few Sopwith Triplanes, **N533** included, did not have a Rotherham pump attached to the starboard cabane strut so this was removed from the kit part. This was an air driven pump for pressurising the fuel tank and I suspect that for those aircraft that don't have one on the cabane strut, it may have been attached to the forward landing gear strut instead as it was on the Triplane prototype. This is not visible in the only known picture taken from the rear of **N533** however (or any other pictures of Rotherham-less production Triplanes I could find for that matter) so I left it off completely.

Triplanes could have the pitot head mounted on the port outer strut or the leading edge of the middle wing and **Roden** do give alternative parts for the port outer strut, with or without pitot mounting. The pitot is also moulded to the port side middle wing so it is a simple case of cutting this off if choosing the strut mounted option. The pitot is clearly visible in the photo as being mounted on the strut so I used the appropriate kit part. Oddly, this strut is moulded noticeably thicker than all the others so quite a bit of scraping and sanding was required to thin it down to match. In retrospect it would probably have been easier using the standard strut and scratchbuilding the pitot mounting.

The struts were airbrushed **Humbrol Oak**, once this was dry a thin streaky wash of **Tamiya Linoleum Deck Brown** was brushed on to simulate wood grain and the final finish was a light coat of **Gunze Clear Orange**. The fittings and pitot mount were done in **Humbrol Coal Black** with black decal strips used for the triangular brackets. The full length wing struts were then glued into the holes in the middle wings, ensuring that they were at right angles to the wing surfaces. Once dry any gaps were filled and sanded. The cabane struts were set aside until final assembly.

Landing Gear

The landing gear needed quite a bit of work, mainly concerning the airfoil shaped spreader bar with integrally moulded axle. Like many Sopwith types, the Triplane had a rudimentary suspension consisting of a two-part axle hinged in the middle and sprung at the ends with bungee cords. The axle nests in a spanwise slot which is not present on the kit part, instead two ends of a solid axle sprout from the spreader bar like sausages sticking out of a pie. Adding to the ignominy, large clunky blocks moulded to the ends of the axles are meant to represent the bungee cords. These needed to go, so the axles were first carefully sliced off the spreader bar taking the horrible clunky blocks with them. The next step was to cut the slot which needed to be a half round shape to accommodate the tubular axle. This taxed my brain somewhat (not that it takes much to do that!) trying to figure out the best way to create a uniformly sized half round groove across the entire width of the spreader bar without it looking like a dog's dinner. Eventually I came up with the notion of filing an oversized groove in the spreader bar to accept a length of **Contrail** tubing of the appropriate diameter. This was firmly clamped in place while the glue dried to ensure that a uniform half diameter was sticking up above the top of the bar. Once fully dry, the tubing was filed and sanded flush with the top of the spreader bar leaving a nice half round groove for the axle to sit in. Any gaps were filled and sanded and, while I was in a filing and sanding mood, I took the opportunity to thin down the spreader bar as it was much too thick. Rigging holes were then drilled with a **# 80** bit. One of the landing gear struts had broken in transit, this was repaired then both struts were glued to the modified spreader bar, temporarily locating the gear into the holes in the fuselage and wing to ensure the correct angle. Once set, holes were drilled in the lower struts and short lengths of 0.020" plastic rod glued in. **Photo 11** White thread would be wrapped around these and the axle ends during final assembly to simulate the bungee cord suspension. The axle itself is from thin walled 1/16" brass tubing. A hole was drilled through the centre for the vertical rigging wire, the tubing was carefully bent to represent the aircraft under load and the axle was then epoxied in place.

It was nearing the time to turn this monoplane into a triplane, but paint and decals were the next things to tackle before that could happen.

Paint and Markings

There is a debate amongst WWI aircraft enthusiasts regarding the paint applied to Sopwith Triplanes. Whilst **PC-10** is accepted to be the standard colour for most European based RFC aircraft from 1916 onwards, it is known that **PC-12**, a reddish brown colour, was applied to some aircraft serving in the Middle East. There is however some evidence to suggest this colour may have been applied to Sopwith Triplanes serving in Europe as well. Period photos are of little value of course as both colours look pretty much the same in black and white so it is impossible to say with any certainty whether **N533** was **PC-10** or **PC-12**. Collishaw himself doesn't mention it in his biography *Air Command: A Fighter Pilot's Story*, but he does state that he recalls the undersurface colour being pale blue, although it's not clear if he's referring to this machine or his earlier single gun "**Black Maria**", **N5492**.

Lacking any clear evidence either way, I decided to go with the more traditional **PC-10** uppersurfaces with the wing undersides in clear doped linen simply because it just looks "right" to me – though perhaps someday it may well be proven to be wrong! **PC-10** could vary enormously from different manufacturers and time periods so there really is no definitive model paint for it. It is often interpreted as being very close to a slightly browner shade of **WWII Olive Drab** and in fact many modellers use OD straight out of the bottle (or tin for those of us living in the UK) to good effect. I have in the past mixed my own **PC-10** from various shades of **Olive Drab** with a few drops of brown thrown in, but this time I

thought I'd give **Polyscale's PC-10** a go. After spraying a test patch on some white card it looked a bit too bright and too green to me (again, based on nothing more scientific than what looked right to my eye) so I added about 10% **Polyscale Red Brown** to tone it down a bit. The wing and horizontal stabiliser undersides were first sprayed in **Xtracolour Clear Doped Linen**, once dry the leather reinforcement patches around the struts and rigging entry points were masked and sprayed **Humbrol Leather**. Ribs were then masked with thin strips of **Tamiya** tape and then a light coat of **Gunze Smoke** was sprayed, a time consuming yet very effective way of defining the rib tapes. **Photo 12** The **PC-10** wraps over the leading and trailing edges of the wings so this was masked with **Tamiya** tape, thin strips again being used for the curved wing tips. The **PC-10** mix was then sprayed on all uppersurfaces,the fuselage bottom, the assembled landing gear unit and inner wheel covers. Once dry, the forward metal panels were masked off and sprayed **Humbrol Coal Black** along with the fin, cowling and outer wheel discs.

Roden's decals can vary in quality and in the past I have had a few problems with them so I tested a couple of decals from the other options on the sheet. Other than being somewhat brittle and prone to flaking if moved excessively they seemed to be okay so rather than forking out for an aftermarket sheet I went ahead with them. It took a fair amount of coaxing with strong decal solvent to get them to conform to the details but eventually they settled down nicely, though I did have some instances of fractured decals. **Photo 13** These were touched up with the appropriate colours before overspraying all the major components with a 50/50 mix of **Gunze Clear Flat and Gloss**.

The Final Bits

The machine guns were next as they were much easier to install before the wings went on. I decided to give the the Vickers guns from **Gaspatch Models** a try. These are absolutely superb, being 3D printed items, which I suppose is the way of the future in model accessories. They are not cheap, but well worth it. The kit guns aren't bad, but it would have taken a considerable amount of effort to get them looking anywhere near decent and even then they wouldn't have been a patch on **Gaspatch**, so to speak. I had to file a bit off the kit ammunition feeds as well as the corresponding part of the guns to get them to fit properly but once this was taken care of they were a nice snug fit. The guns were painted with **Humbrol Metalcote Gunmetal** and then epoxied in place.

Final assembly could begin at last, a stage I always greet with both trepidation and excitement when assembling any aircraft with two or more wings. At this point it can either start to look really promising, or go horribly, horribly wrong… The cabane struts, which incorporate the inner ends of the middle wings, were glued to the fuselage ensuring they were vertical and parallel to each other. These were allowed to set overnight and then the completed middle wing assemblies glued in using tube cement for strength, the mounting holes and strut ends having previously had any paint scraped away. So far so good; I'd gone from monoplane to biplane without any major problems. The top wing was then glued in place, again using tube cement, and this too went on without issue and lined up nicely, a triplane at last. The fin was glued on, this mounts on two pegs leaving a slight gap as it does on the real thing. The landing gear unit was now cemented firmly in place followed by the scratchbuilt tailskid assembly.

Rigging

It was now time to start the rigging process. Often quoted as the one thing that puts people off building a biplane (or triplane), this is actually one of my favourite parts. Having not built a multi-winged aircraft in this scale for a very long time however (and the last time I did, as a wee lad, I rigged it with very fuzzy sewing thread!) I was in a quandary about how to tackle it. Stretched sprue is my usual medium of choice in my favoured 1/72 scale but I didn't think it would be up to the task in the larger scale. I have a spool of the same flat elastic sewing thread that Wingnut markets for use as RAF wire but I didn't find its appearance to be very convincing and it was too easy to get a twist in it during installation, plus it needs painting. Eventually I decided etched rigging would be the way to go and ordered some of **RB Productions** etched RAF wires. This worked very well and was actually quite easy to install, even easier than stretched sprue in many ways, however my choice of adhesive wasn't really up to the task. I went with epoxy, thinking that as it was slightly more flexible than superglue it might allow some give and therefore not break as easily. That turned out to not be the case and I ended up having quite a bit of slack rigging to fix, mainly caused by unavoidable excessive handling of the model during final assembly. Contrary to some models I've seen, it's worth noting that the Tripe actually has very few external turnbuckles, they are present only on the flying wires and even at that they are nowhere near as prominent as German turnbuckles. I built up the turnbuckles with a couple of layers of superglue which were then painted black.

The Engine and Prop

The kit supplied Clerget engine isn't too bad really. I did consider replacing it with a resin engine from Vector but having already forked out on the aftermarket Vickers guns I thought I'd first try and do something with the **Roden** one instead. The engine is in front and rear halves so probably the most time went into cleaning the seams between each cooling fin. The engine halves were first sanded flat to improve the fit and then assembled and clamped with clothes pegs while the glue set, ensuring that all the fins were lined up as best I could. I then used the edge of a cutting file and the tip of an X-Acto knife to eliminate the seam between each cooling fin, a laborious but fairly successful procedure. The moulded pushrods were cut off and holes drilled for new ones in the crankcase. The cylinder heads and valve assemblies are the poorest part of the kit mouldings but they aren't very visible once the cowling is on so I wasn't overly concerned with this. New rocker arms were made from 0.030" x 0.040" strip, filing and sanding these to shape once dry. I wasn't after accuracy here since they wouldn't be seen, I just needed something to attach the new pushrods to.

Pushrods were made from 0.33 mm Nickel Silver rod from **Albion Alloys**. Spark plugs are resin items from **Taurus Model** superglued into holes drilled in the cylinders, the leads are from fine copper wire. The spark plugs are nerve wrackingly tiny and a couple of them launched themselves into space while I was trying to insert them, never to be seen again. Fortunately **Taurus** supplies a few spares. Paint is **Alclad Aluminium** and the firewall finished in **Bare Metal Matt Aluminum Foil**. The induction pipes are **Alclad Copper**, though you'd be hard pressed to see them on the completed model. Before the cowling was attached, the engine, firewall and the inside of the cowling were given a liberal oily wash consisting of a few drops of **Humbrol Acrylic Service Brown** and **Tamiya Clear Yellow** in Tamiya thinner. **Photo 14** It would be difficult to overdo this effect as rotary engines have a total loss lubrication system; ie, rather than a pump circulating the oil in an enclosed system, the oil is circulated by the rotation of the engine, flung straight out the exhaust valve and all over the aircraft. Over the years I've owned several cars that seemed to have a similar system, though thankfully without the same effects that castor oil had on WWI pilots.…

I didn't go overboard on the weathering since this wasn't a well used aircraft, at least not by Collishaw; he was only known to have flown it on seven patrols, shooting down one Albatros and sending another out of control on his last flight in this plane. Other than the usual oil stains and mud the only weathering was a bit of chipping around the metal panels and some blast marks under the muzzles of the Vickers guns.

The prop was carved from wood as is my standard practice for WWI aircraft, though in this case I laminated alternating layers of thin oak and mahogany veneers together instead of carving it from plywood as I do in smaller scales. The prop boss was carefully sliced off the kit prop and then sanded down paper thin before painting with Metalizer steel and gluing on. This worked a treat and solved the dilemma I had about how to tackle the prop boss in this scale. **Photos 15 & 16**

The End of the Build

The final items to add were the previously removed control surfaces, displaced to match the control column and rudder bar. The rigging linking the ailerons was added from the etched RAF wires and all the external control cables from the same braided beading wire used in the cockpit. Control horns were the kit supplied parts but these were sanded down to reduce the thickness. The bungee cord suspension was created from white sewing thread and then coated in superglue to keep the fuzzies at bay. Valves made from 0.015" brass rod were added to the wheels and fine wire was used to simulate the two spokes which can be seen through the openings in the wheel covers. The wheels were assembled, then epoxied to the metal axles and the model was complete.

Parting Shots

In many ways 1/32 scale is ideal for WWI models. Being relatively small aircraft, most of them are still a manageable size in the larger scale (**Wingnut Wings**' recent Felixstowe kits are most definitely an exception!), and as they are also fairly simple aircraft in many respects one does not have to go to town on the detailing to get a reasonable result. Though I'm still a 1/72 scale fan at heart, I will certainly not shy away from this scale in future and am already eyeing up that lovely **Hasegawa** Boeing P-12E that's been gathering dust in the "build me" pile.