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Cover Comment: *Frank Cuden took an American's look at the CAF CP-140 Aurora and produced this lovely little replica of a Canadian sub-hunter. See page 29 for the complete build. (Frank Cuden photo)*

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2003 Dodge Viper SRT-10

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Introduction

2014 was the 100th anniversary of the Dodge brand of cars and trucks. A number of model contests had introduced a theme along these lines. I had a Dodge Viper kit that I bought from a collection of models. The intent was to take the engine and put it in a modified Dodge pickup truck and build a model of the Dodge Ram SRT-10 truck that a friend of mine had. He has since sold the truck so I lost interest in the project and sold the truck kit. I hung on to the Viper kit for some reason and the 100th anniversary looked like the best way to do something with the kit. It was a **Revell** kit of the **2003 Dodge Viper SRT-10**, which only came in factory colours of black, silver or red. In my view, red is the best colour for a sports car.

Now some say that the **Dodge Viper** logo, turned upside down, looks like **Daffy Duck** and I can see their point. (**Photo 1**)

Construction and Painting

The one thing about the kit was that the engine had already been assembled and painted very nicely, but the rest of the kit was untouched. (**Photo 2**)

The instructions call for adding the side body pieces during one of the final assembly steps (**Photo 3**). I definitely did not like this idea and by taping the body pieces together, I was able to see that I could get the complete body on the chassis during final assembly.

The body prep for painting included:

- ◇ Rescribing all panel lines to deepen them
- ◇ Gluing on the mirrors and side pieces
- ◇ Drilling out the exhaust side pipe exits
- ◇ Doing a little spot putty under the vent behind the front wheels with Tamiya white putty
- ◇ Sanding moulding seams and polishing body and hood for paint

The body was airbrushed with **Tamiya Bright Red**, decanted from the can. No primer was used because there are some fine raised logos on the sides and rear bumper that I don't want to cover with too many coats of paint. A few dust specks were polished out the next day, then I tried a clear coat that I've never tried before – **Dupont Clear Acrylic 7480S**. It comes in a 375 ml can that you can get from NAPA auto parts stores. I tested it on part of another body that I used for testing. The can is under a lot of pressure and a lot of paint comes out, so I decanted out of the can.

The body was then painted using an airbrush I only use for clear paints – four coats, 30 minutes apart, with the last coat the heaviest. (**Photo 4**) About 24 hours later I started to gently wet sand with 3600 polishing cloths, then the three Tamiya polishing compounds. **Photo 5** shows the middle section of the hood having had a first pass at the polishing process, the outside section has been wet sanded and the fenders haven't been touched at all.

The interior is supposed to be all black, but I saw a cool picture of a Viper interior with red accents. I will do that paint scheme, with some flocking and variations in the colours and shine of the black in the rest of the interior. The interior was spot primed with **Gunze white primer** for the red areas, to ensure good coverage of the red. (**Photo 6**) These parts were painted at the same time as the body.

I like to have poseable wheels on my car models, I think it adds a bit of realism to the finished product. Most foreign car kits design their models with poseable wheels, whereas domestic kits rarely have this (don't ask me why). In some cases, it's easy to add poseable wheels, but in some models, it's more difficult. This Dodge Viper kit can be converted without too much trouble. Here are the steps:

◇ Fill in the location slot in the lower A arm

◇ Remove the tab on the upright (which is moulded into the frame)

◇ Drill four 1 mm holes through the arms and into the upright, for the axis about which the wheel will turn

◇ Glue four small pieces of 1 mm diameter rod to the uprights

◇ Drill two 1 mm holes on each upright to attach the tie rod arms (these are not square to the upright but I drilled them at an angle because I was afraid of clearance issues during final assembly)

◇ Glue two small pieces of 1 mm diameter rod for the tie rod arms

◇ Flatten the tie rod ends with flat nosed pliers

◇ Drill 0.5 mm holes drilled in the flattened end of the tie rod arms

◇ Remove moulded tie rod arms from tie rod

◇ Remove attachment pins on tie rod (it is designed to mount to the frame on either side)

◇ Drill 0.5 mm holes through the ends of the rod

◇ Glue 0.5 mm craft wire to holes in the ends of the tie rod

◇ Assemble and test

I needed to add a spacer to the tie rod so that the wheels don't toe-in but track straight. I always like to use pins in these situations as a butt joint would probably not hold. The whole assembly is a bit fragile as the plastic in this kit is the soft consistency that Revell used in the mid-1990's. The tie rod tends to bend when the wheels are turned. If I'm careful, I can now show the car with turned front wheels. (**Photo 7 to 10**)

I assembled the seats and filled in the gaps with Tamiya putty, then cleaned up the joint (**Photo 11**). After polishing out the paint on the bodywork, the underside of the hood was masked for the insulation. This was painted with **Tamiya German Gray**, which I also used on the centre section of the seats. (**Photo 12**) Underneath the hood there is Viper logo in the insulation and this was highlighted with pastels. (**Photo 13**)

The seats, windshield pillars and exhaust pipe exits were masked for semi-gloss black. I debated whether to add stripes to the bodywork. I don't like the two full wide stripes that cover the whole body – they look like Viper owners are

trying too hard to imitate a Shelby Cobra. I saw a photo of a two-part stripe that just covered the bulge on the hood and the rear deck, but of course I can't locate the photo on the Internet anymore. Based on what I remember, I masked the body and used **Tamiya semi-gloss acrylic** for the stripes. (**Photo 14 to 16**). I like how the difference in sheens between the gloss red bodywork and the duller black stripes.

The interior also received black flocking on the floor and partway up the centre console and some aftermarket seat buckle pieces.

Final Assembly

I always forget how long it takes to do all the final little fiddly bits on a car model – mirrors, all the various lights, some small decals, etc. At this stage, I go back to the instructions and follow pretty well all the steps to make sure nothing is left out and the sequence is done correctly. I laid out most of the pieces that I have at this stage. (**Photo 17**)

From the outside, you don't get a sense of just how far back the engine sits in the Viper chassis, which helps with the weight distribution. (**Photo 18**)

Note the aluminum wire mesh surrounding the air cleaners, just behind the rad. (**Photo 19**) There is a chrome metal logo that I sourced on eBay on the front bodywork and two on the floor mats (these are very difficult to see). There are also spark plug wires, which are also difficult to see.

Final Thoughts

This Revell kit can hold its own against some of the more expensive sports car models available and results in a relatively stress-free build. With a few aftermarket parts and some detailing, a very nice replica of a modern American sports car can be yours.

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.

1/48 USN TA-4J Skyhawk AGGRESSOR

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Introduction

There are many variants of the A-4 Skyhawk that have been used by air forces and navies around the world. The one that I chose to build is the TA-4J. It is a two-seat version that started out as a trainer in the US Navy but in later life it was used in the 'adversary' role, simulating potential threat aircraft that F-4 Phantoms, F-14 Tomcats and F/A-18 Hornets might find themselves up against.

The Kit

I used the **Classic Airframes** kit for this build, which I picked up at a local show. No longer in business today, **Classic Airframes** manufactured limited-run injection-moulded kits. I had previously built other **Classic Airframe** kits so I knew what to expect. They generally have no alignment pins and most parts had some sort of flash to deal with and remove. I've the found that the best method to follow with them is to test-fit, test-fit, and then test-fit again. It took me about 3.5 months to build this kit; one month was spent just sanding down the poor joint seams, or at least it seemed like that much time doing it. The person from whom I bought the kit from was nice enough to include two aftermarket ejection seats because the kit-supplied seats, which are resin, were unusable.

Building Strategy and Challenges

I find that the place to start on these kinds of kits is to first check and adjust the fit of the major pieces. I sanded the joining surfaces of the two fuselage pieces until they fit reasonably well. There is an insert at the base of the leading edge of the tail; that needed a lot of work to fit properly.

After I decided that the fuselage would go together without producing any major seam issues, I turned my attention to the cockpit. The forward cockpit sits on the resin nose wheel well for alignment (**Photo 1**). The rear cockpit had no such help. I had to add a piece of plastic sprue to the bottom to hold it in place (**Photo 2**) and (**Photo 3**). I added some plastic sheet to the edge of the fuselage to help with the alignment.

The seams of the fuselage were not bad, but they were not Tamiya or Hasegawa quality. Even with some preparation a lot of work was still needed to make them disappear. I used a combination of **Mr Surfacer** for the small seams and, for the ones that just wouldn't vanish, **super glue**. After sanding I had to do some rescribing of the panel lines that were lost and some that were soft to begin with. Under the fuselage, just ahead of the wing joint I had some trouble with that area. I ended up having to add some plastic sheet to make that panel flat (**Photo 4**).

The main landing gear wheel wells were also supplied in resin. They have lots of detail as there are many small pipe runs and lines in that area (**Photo 5**). The fit of the resin was good and thee lined up pretty well (**Photo 6**). The kit comes with resin parts for the spoilers and flaps. However I found the resin was a bit too small for it to look right. For replacement flaps I used a set from a junked Hasegawa A-4N kit. Since the flaps were going to be lowered I used the resin spoiler, sanded it thin and then glued it to the bottom of the upper part of the wing, giving it the detail that it otherwise lacked (**Photo 7**). The rails for the leading edge slats were separate pieces. They had to be glued so they all lined up correctly. After some work I was able to join the wing to the fuselage without much fuss.

The air refuelling probe that comes with the kit was not very usable due the large pour stubs that attached it to the sprue. I took a piece of plastic tubing, cut it to length, then cut off the probe fitting from the kit and attached it to the new tube. Where it was a butt joint to attach it to the kit I knew I had to reinforce it somehow. I drilled two small holes into the side of the tube and into the fuselage. Two pieces of wire were then glued into the tube. When I attached the probe the side of the fuselage, it stayed it in place. I reinforced it so well that when the refuelling probe was broken off later, it broke just in front of the wires.

There is a frame that goes between the front and rear cockpits that mounts the piston used to raise and lower the canopy. The resin frame was just a little too narrow to touch the sides of the canopy (**Photo 8**). I cut small pieces of

plastic sheet and attached them the arms for the frame until it was able to be placed in the correct position. Again the piece that came with the kit was plastic and I didn't trust its strength for supporting the canopy in the open position. The section between the cockpits is where the piston goes so I drilled a hole into that piece and glued a section of metal tubing (**Photo 9**). This way I could slide the needle that I used for the piston into the metal tube after everything was painted. I wanted the canopy opened because the canopy was about 2 mm too short and would be very noticeable if closed. Left open, problem solved. The coaming over the front instrument panel had a poorly-formed HUD. Looking at several of my reference books on the Skyhawk, I replaced it with an extra gun sight from a P-47D Thunderbolt (**Photo 10**). They look similar enough in appearance to suit me - problem solved. The windscreen needed lots of work to fit. The coaming was a little too wide; sanding it down on the sides was needed to finally make it fit. I also used some more **Mr. Surfacer** to blend it in to the fuselage.

Painting and Weathering

I used **Vallejo paints** for the entire model. The two main camouflage colours were **FS 36375** and **FS 35237**. I wanted a subtly-weathered plane, so I added a little bit of black to the base colour, then airbrushed. Then using the base colour I painted the inside area of the panels, giving it a spotted paint job. I let the paint dry for a few days, then masked it and painted the other colour the same way. To give the model a little more of a 'used' look I used **Mig Washes for Green Vehicles**. This is a brown wash and I wanted to show dirt in some spots (**Photo 11**). I also used **Vallejo Dark Grey Wash** in other spots. I think it produced a nice and subtle result.

Markings

The decals used for this build came from **Afterburner**. The sheet is called '**Scooter Bandits'** and has a several schemes from various USN 'Adversary' squadrons. My plane is from VF-45 "The Blackbirds" from around 1989 (**Photo 12**). The decals went on great; I used **Future** as a clear gloss base coat and **Vallejo clear flat** over them.

One of the last things to be added to the kit was resin intake plugs from **Steel Beach** (**Photo 13**).

Conclusion

I knew the kit was going to need a lot of work. Would I build another one? Maybe, but I think if I do another TA-4J, I think I might try the **Hasegawa** version next time around.

Scratch-building a 1/48 'RCAF' Blake and Mortimer Swordfish

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Introduction

The *Swordfish* may be characterized as a fictitious semi-submarine, semi-aircraft machine. It is featured in the comic book, *The Secret of the Swordfish*, which was originally published in French (as *Le secret de l'Espadon*, in three parts) by the Belgian author Edgar P. Jacobs, and translated into English by Clarence E. Holland (Blake and Mortimer Editions).

While an interesting subject for the modeller who happens to be a fan of the adventures of Blake and Mortimer, the *Swordfish* can also represent a challenge. This is because, to the best of my knowledge, only one kit of the *Swordfish* is commercially available - a 1/72 resin offering from Sharkit Models. Since I prefer 1/48 scale, I had no choice but to build from scratch - hence my project.

Choosing the *Swordfish* as my first scratch building project did, on the other hand, present the important advantage that I would not have to reproduce something "real" with all the obvious difficulties. From this point of view science-fiction subjects are particularly interesting, as they allow plenty of room for exercising one's imagination while being fairly forgiving of mistakes. As will become clear in the sequel, the project turned into a mix of "what if" and sci-fi.

In comparison with the Canadian subjects normally treated in **RT**, mine is a strange topic. I submitted this article mainly because the construction technique, based on the use of soft-brass sheet, is somewhat unusual. I hope that this account of my experience will be useful to other modellers.

The 'history' behind The Secret of the Swordfish

The Secret of the Swordfish begins in the late 1940s. An Asian power, led by the dictator Basam Damdu, plans to achieve world dominance through a massive attack upon other nations. While tensions rise, Professor Philip Mortimer, a British physicist working at the fictitious Scaw Fell plant, is busy designing the *Swordfish*, a secret weapon meant to counteract Damdu's forces. However, well before completion of the project, war breaks out. With the world's capitals all but annihilated, Professor Mortimer and Captain Francis Blake, a British intelligence officer, escape from Scaw Fell with the plans of the *Swordfish*, just before the enemy seizes the plant.

After overcoming many perils Blake and Mortimer reach a hidden base in the Strait of Ormuz, where construction of the *Swordfish* resumes. Two prototypes manage to repulse a dramatic assault on the base by Damdu's forces, led by Mortimer's nemesis, the evil Colonel Olrik. Before the enemy can recover from this humiliating defeat, a *Swordfish* squadron is formed—just in time to stop Damdu, who is about to launch his nuclear ballistic missiles as a desperate act of vengeance.

'What if' the Swordfish had been Canadianized?

Here begins the sequel I envisioned to this particular adventure of Blake and Mortimer.

After the war is won, the British government attempts to sell the *Swordfish* abroad. In Canada, the RCAF eventually shows interest for the *Swordfish* Mk II, an anti-submarine variant being developed in the mid-fifties. The Mk II is fitted with advanced features such as variable wing dihedral (designed to optimize lift and drag in the air and sea modes), solid-state avionics, and a more powerful engine. It is also armed with air-to-sea and sea-to-sea torpedoes.

Two prototypes of the *Swordfish* Mk II are built. Prototype 27001 is tested by AETE in the greatest secrecy—with, of course, **Major Dan Cooper** at the controls. Later, 415 Squadron (by coincidence, *Swordfish* Squadron) performs operational testing. All tests are promising, but, due to budget cuts and the advent of the more economical **Canadair Argus**, the project is terminated. (This official version of events is controversial, as some have suggested that the devilish Colonel Olrik sabotaged the program for personal revenge.) To this day the fate of the Mk II prototypes is unknown; they have probably been destroyed—thus, perhaps, starting a Canadian trend…

The model

When I started the project I had no scale drawings at all. My sole reference was Part 3 of *Le secret de l'Espadon*. I took measurements from the comic book panel images, making particular use of side and rear views, as seen in **Fig. 1**. Next, I drew a three-dimensional model on my computer (**Fig. 2**).

The exploded drawing in **Fig. 3** shows the main parts of my model, which I numbered for convenience.

True-length drawings at 1/48 scale were then printed to guide construction throughout of the project (**Fig. 4**).

Next, all bulkheads were drawn and printed on a sheet of paper—which became the pattern used to cut the bulkhead shapes in sheet styrene. Each bulkhead in **Fig. 5** has its corresponding number on the exploded drawing of **Fig. 3**.

The bulkheads were cut in 0.118" sheet styrene with a scribing needle. In fact, the needle was used to weaken the styrene so the bulkheads be cut with pliers by bending the plastic alongside. Sandpaper was used to smooth the bulkheads contours. The bulkheads were joined by stringers made of **K&S Engineering** brass rods.

A thick brass rod was fitted along the centreline to keep the parts aligned. The skin was made of **K&S Engineering** 0.002" soft-brass sheet. Epoxy glue was used to keep all parts stuck together. **Tamiya putty**, **Green Putty**, **Milliput putty** and **Gunze Mr. Surfacer** were great adjuncts for sealing the joints.

Project details

Nose section

I started with the nose section, which is made of brass tubes of various diameters glued end-to-end with epoxy. Extensive use of putty helped for conic shaping. In order to machine a smooth and symmetrical nose, I contrived a simple but adequate tool by fixing a drill to a vice clamp, as shown in **Fig. 6**. The nose section was installed on the drill and machined by application of a sanding stick. Note that a pitot tube is meant to be fitted in the hollow tip of the nose.

Cockpit section and main section

The cockpit bathtub and the main section were then constructed. **Fig. 7** shows bulkheads joined together with stringers, which are attached to the cockpit section.

At this stage, because the fuselage shape varies from section to section, it became apparent that cutting sheet-metal pieces of the right forms would be a major challenge. I preferred to avoid developing the mathematical formulae suitable for representing the complex 3-D surfaces involved. After some thinking, I found a fast and accurate method in **Grafix Frisket Film**, a clear, adhesive material used by airbrush artists for masking. The film temporarily sticks to metal, it is relatively flexible, and it can be cut sharply.

Here is the method I recommend for producing a piece of sheet metal of the right shape and size by means of Frisket adhesive film:

1. Apply a piece of adhesive film (represented by solid black lines in **Fig. 8**) onto the bulkheads that need to be covered with sheet metal, and draw a contour line along each bulkhead with a permanent marker (see dashed lines in figure).

2. Remove the piece of adhesive film from the bulkheads and fix it onto a piece of sheet metal. Then cut the latter with scissors along the contour lines (**Fig. 9a & 9b**).

3. Finally, rid the freshly-tailored piece of sheet metal of adhesive film, and glue it in place with epoxy. Rubber bands and grips may be used to hold the sheet in place while the glue dries (**Fig. 10**).

Thin sheet metal is difficult to work with: it has a tendency to distort when pressed too hard. Putty, however, can be used to correct such defects as they occur; to avoid tearing the metal off while sanding the putty, make sure to work *along* the joints between pieces of sheet metal.

This being my first experience with sheet metal, I occasionally sprayed Tamiya primer to check for flaws—a precaution which gradually increased my confidence with the material. I do recommend, however, working a small section at a time.

As a final note on this technique, I will admit to having tried sheet styrene for the skin. It turned out to be less convenient than sheet metal, as sanding the putty weakens the thin styrene sheets—an nonexistent problem with metal.

Intake section

Next, the intake section was assembled (**Fig. 11**). Holes were drilled for installation of each wing.

As the *Swordfish*, while an aircraft, is also a submarine, it was desirable to create the illusion that a movable trap can close the air intake and force water to flow through the underwater engine when the machine is submerged. Pieces of sheet metal placed appropriately helped to create this effect (see **Fig. 12**).

Engine section

Upon completion of the intake section, I proceeded further along the fuselage to the engine section. As a means of reinforcing the structure, I had made some bulkheads there thicker than others (**Fig. 13**). When completed, the engine section was glued to the intake section (**Fig. 14**).

Two large, brass concentric tubes were inserted into the rear of the engine section to represent the jet exhausts for the air (inner) and sea (outer) modes of propulsion (**Fig. 15**). Note the tail fin serial number; for the first two digits I chose 27, as this combination has never been used for a Canadian military aircraft.

Assembly of fuselage, nose, wings and tail fins

The front fuselage, composed of the cockpit and main sections, was joined to the rear fuselage, comprising the intake and engine sections; the centre of the joint was reinforced to ensure enough rigidity (see arrow in **Fig. 16**). The nose section was then attached to the cockpit section using a bolt and a nut (**Fig. 17**).

The wings and tail fins were sourced from my spare-parts box: the wings were cut from those of a Hobbycraft CF-105, while the rudders and elevators were formed from the stabilizers of a Hasegawa F-18. Once the wings were sanded to proper shape, leading edges made of brass tubing were glued onto them. The rudders and elevators were also sanded, and control surfaces were delineated by scribing with a modelling knife.

At this point the wings, rudders and elevators were fixed to the fuselage, with brass tubing inserted at some locations for reinforcement. Extensive use was made of epoxy glue and putty to seal the joints. The whole structure was then sprayed with Mr. Surfacer grade 1000 primer to check for flaws and help further seal the joints (**Fig. 18**).

Cockpit detailing

The *Swordfish* is designed to be piloted in the prone position, which allows the human body to withstand larger *g* forces. The seat was fashioned accordingly (**Fig. 19a/b**). Harnesses were made from paper and painted olive drab. The buckles are **True Details** photo-etch.

The main instrument panel and the radar scope were taken from the rear cockpit of a Hasegawa F-4C Phantom II. The control stick and the throttle actuator were recycled from a Hasegawa F-18. The reflector gun sight was cut in mica sheet. A striped ejection handle, made from plastic, was installed beside the pilot's left forearm. The pilot's helmet came from the same F-4C Phantom II kit; a drop of Testors clear green was applied to the visor to create a transparency effect. The rudder controls are **True Details** photo-etch; they were dry-brushed using silver paint wiped upon a Scott paper towel.

The canopy frame was made of sheet metal and brass tubing. The piston representing the opening mechanism was also made of brass tubing. The canopy window was formed from mica sheet and then sprayed with **Testors clear green**.

Finish

Since this *Swordfish* was meant to be used at sea by the RCAF, I sprayed the top with Krylon gloss navy blue, a colour close to the actual finish of RCAF Lockheed *Neptune* maritime patrol aircraft of the 1950s. The underside was sprayed with Krylon gloss white.

Correction to the wing dihedral

Toward the end of the project, I realized that I had attached the wings at an improper angle, as is apparent in **Fig. 18**. I was faced with a dilemma: Should I correct this defect or not? The paint job was completed, and the odds of breaking the model were high. Finally, I took the risk: I removed both wings, reattached them with the proper dihedral, and sealed the gap at the fuselage with Milliput putty. I also glued a thin plastic strip on top of the fuselage between the wings to represent the variable-dihedral mechanism. In the process of all this, I dropped the model on my workbench and broke a rudder; however, thanks to Milliput, the ensuing repairs were not too apparent. A thin layer of paint was sprayed locally to complete the job.

Markings and decals

I chose to represent my *Swordfish* Mk.II as it appeared in 1958 while being tested by 415 Squadron. Therefore, markings of the 'RCAF+3' era, such as those used on the Lockheed *Neptune*, were the logical choice. I placed a special order with CanMilAir, who kindly designed appropriate decals (my thanks to Bill Burns for the great job!).

The *Swordfish* Mk II is fitted with torpedo launch tubes inside the wings. Using Testors' custom decal system, I printed representative tube covers on a decal sheet with an ink-jet printer.

All decals were applied with Micro Set and Micro Sol, upon a coat of gloss clear lacquer. Once the decals were dry the whole model was sprayed with a coat of flat clear lacquer. (Sandwiching decals between two coats of lacquer is an efficient way to prevent them from silvering.)

Finally, access panels were drawn with a pencil, using masking tape as a guide.

Conclusion

I derived much pleasure from scratch building this model. The "what if" scenario allowed me to let my imagination run—albeit in a way that perhaps only fans of Blake and Mortimer *and* of Canadian aviation would appreciate… More importantly, the project gave me the confidence to undertake future scratch- building projects.

One such project I am contemplating is rather more serious: building the hydrofoil **HMCS Bras d'Or**. I am using this opportunity to ask any reader who knows how I could acquire detailed drawings to please step forward! My e-mail address is **louis.roy2@videotron.ca**. Your help will be much appreciated.

Acknowledgements

I would like to thank my wife Diane, who understood that the time I spent building this model for my own sake was well invested. Also, special thanks to my father Christian Roy and my uncle Richard Boivin who kindly agreed to review this article for the English language quality.

References

◇ *Blake et Mortimer, Le secret de l'Espadon*, by Edgar P. Jacobs, Éditions Blake et Mortimer, 1984.

◇ *Royal Canadian Air Force Aircraft Finish and Markings 1947-1968*, by Patrick Martin, self-published, 2003.

A CAF CT-134 Musketeer

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A Short History of the CT-134

Twenty-four Beechcraft Musketeers were purchased in 1971 to replace the long-serving CT-120 DHC-1 Chipmunk as the CAF's primary flight trainer; the first aircraft arriving at CFB Portage la Prairie, Manitoba, in March, 1971 and were designated **CT-134 Musketeer**. The aircraft were standard Beechcraft Model B23s, modified by the addition of a cowling strake, horizontal stabilizer strake and a ventral fin to improve spin recovery performance. They were initially serial numbered as **13401-13424**, but were re-numbered in 1973 to become **134201-134224**.

The initial batch of CT-134s was replaced in late 1981 with a purchase of twenty-four new aircraft. These were 1982-model Beechcraft C23 Sundowners and were designated as **CT-134A Musketeer II**. These were numbered from the outset as **134225-134246**, and remained so until the Musketeers were withdrawn from CAF service in 1992.

The Model Kit

The CT-134 Musketeer is available as a resin model from **Aero Modell** from Germany.

The resin parts are packaged in individual plastic cells. All the parts are beautifully moulded and have finely scribed panel lines. I found only five tiny pinholes on the bottom of the fuselage. On my kit the very thin trailing edge of the vertical rudder was broken so I made a new rudder from plastic card. The kit sent to me had only two parts for one seat in it, but now parts for all the seats are in the box. In the box are sixteen green-grey resin parts and nine clear resin parts for the windows and landing lights (**Photo 1**).

From IPMS Canada member **Bob Bryden** I had received over thirty photos of Musketeer **134213** on display in at the **National Air Force Museum of Canada** in Trenton, Ontario, and **134219**, on display in Campbellford, Ontario. The photos of **134219** were of great help as some of them were taken through the open port door showing the interior of the cabin.

The Build:

The start was made by drilling holes into the bottom of the fuselage halves to make it lighter behind the wing attachment slot, and then making it heavier in front of the wing by adding lead shot. Material was removed by drilling and careful carving in the cowling area. I drilled holes using four different sizes into the solid engine and floor section. The drills were wrapped and marked with masking tape to control the depth and prevent drilling through to the outside of the part. The holes and cavities were filled with small lead skeet shot and crazy glue. Underneath the fin some resin was carved away to make this part lighter (**Photo 2 and 3**). On **Photo 2** the starboard side is complete with the lead shot and the lightening holes and the carving of the rear fuselage completed.

Next I made the seats from plastic card using the two parts provided as patterns. The back seating was a bench seat, reminiscent of the rear seats in cars of the 1960s and 70s (**Photos 4 & 5**). In **Photo 5** can also be seen the overhead fairing that contained the forward and rear seat cabin lights.

I decided not to use the supplied clear resin side windows and in **Photo 6** can be seen the tests I made with **Micro Kristal Clear** [centre window] and **Humbrol Clear Fix** [forward and aft windows]. I naturally chose **Clear Fix**, but more generously applied, after painting and decaling were completed.

The fuselage interior was sprayed first in flat white and, after masking the cabin ceiling, the cabin sides of the fuselage were then sprayed **Humbrol # 81 Pale Yellow** (**Photo 7**). The seats were painted similarly. The instrument panel and coaming were painted black and the printed instruments from the instruction sheet was glued in place using white glue. Control handles were made from copper wire, painted and installed. At this stage I used **Tamiya Masking Tape** to seal off the windows from the inside to avoid spraying the interior. The tape is cut so that the sections are a millimetre larger all-

round before being fasted from the inside. These tape sections are removed when all the outside painting, decaling and clear finish coating are completed (**Photo 21**).

After lap belts were added to the seats they were installed into the fuselage halves. (**Photo 8**). The front seats shoulder harnesses and the light console for the front and rear seats were installed to the fuselage roof (**Photo 9**) before closing up the fuselage halves.

The front cowling was added as well as the rudder before filling the seams and fixing up a few blemishes I found on the fuselage halves with **Mr. Surfacer 500**. After drying for 24 hours the seams were wet-sanded with various grades of sandpaper. **Photo 10** shows the tail planes with the added triangular stall-prevention devices.

The coaming was brush-painted with matt black. As the clear resin front canopy was very thick and not clear enough for my liking I had to vacuform one. The resin one was made to fit correctly and then thinned a bit to allow the vacuformed one to fit properly. The resin master was filled with putty and a wooden stem and placed into the freezer for a half an hour before my first attempt to pull a usable canopy. It took three attempts until I was satisfied.

Photo 11 shows the installed wings which fitted well and needed only a small amount of filler. Getting back to the windscreen, I added four very thin plastic strips to the inside on the sides and upper part of the fuselage This would make it easier to fasten the vacuformed canopy. This was glued in place with white glue and held in place with four strips of **Tamiya Tape** (**Photo 12**). Once this had dried for an hour, a thin bead of crazy glue was added and then a thin amount of **Mr. Surfacer 500** (**Photo 13**). After very carefully sanding and than polishing, the canopy it was masked (**Photo 14**).

Photo 15 shows the small anti-stalling device under the rear fuselage (the instruction sheet gives you the correct size), The landing flaps linkages made from thin copper wire.

Copper wire was also used to make the handles for top-rear of the centre side windows and installed. Thin brass wire was used to make two entry step supports to be crazy clued into pre-drilled holes after painting. The landing lights were installed using crazy glue, sanded, polished and masked. Temporary landing gear was installed to facilitate the spray painting.

Painting

The model was primed with **Tamiya White Primer** before spraying **Model Master Chrome Yellow** as can be seen in **Photos 16**. The sides of the cowling were masked and the top of the cowling was sprayed black.

Wing tips, vertical tail and the stabilizer were masked and sprayed **Humbrol # 174 Red Satin**, **Photo 17**.

After 24 hours the model was sprayed with two coats of **Floquil Crystal Cote** and was decaled the next day.

The decals from the kit were used with the exception of the roundels for the wings and the fuselage which came from the **Leading Edge CAF Standard Roundels**. I first cut and installed rectangles of silver decal sheet for the background trim of the flag on the tail before adding the Canadian flags over the silver panels.

Final steps

Photo 18 shows the model in a little jig that was used for the installation of the tail planes. The wooden supports are not yet taped to the bottom section. Well, the tail planes that I glued the triangular stall devices to, then carefully sanded, primed, painted yellow, masked and painted red and than un-masked, broke while trying to install it to the rear fuselage!! **Plan B**. A new tailplane, including the stalling devices was made from sheet plastic, sanded to shape and painted. This was installed without a problem. Lesson learned - sheet plastic is stronger than very thin sections of resin.

After another coat of **Crystal Cote** had dried, the window masking was removed. To do this, two needle holes were first made in each window. Then pointed tweezers were inserted into the holes, the tweezers squeezed together, which pulls the masking off the inside frames and then the tweezers are pulled out alond with the tape, and the tape is discarded. **Photo 19 and 20**.

Before they were glazed with **Humbrol Clear Fix** two small black stretched sprue sections were installed on both sides of the front window from the coaming to the fuselage roof sides, **Photo 21**.

The **Clear Fix** was applied with a toothpick, making contact all around the window frames first. I reloaded the toothpick again with **Clear Fix** and in a circular motion moved it around until the window was formed. I quickly did the three windows on the port side first. Then I added a another drop of **Clear Fix** to the centre of each pane to make sure I had a nice thick sheet when dry. The model was then propped up on the port wing until the windows had tried. The starboard side was done a few hours later.

The landing gear and the exhaust were installed together, along with two small steps on the brass supports and the propeller. The last items to be added was a very thin strip of white decal strip around the vertical tail light and the blade antenna made out of sheet plastic.

Well I thought that the model was finished until **Graham Mansell** saw the model and pointed out that I missed the stall-preventing devices on the top sides of the cowling.

I can't remember how many times I looked at the pictures on my computer and the few pictures I printed to have them on the bench wile working on the model and yes, I completely overlooked them.

A very thin piece of sheet plastic was cut to the right length to later match the cowling and on both sides the corners were rounded. Sprayed yellow and when dry they were coated with two layers of **Future**. Thin strips were cut and attached with **Future,** **Photo 22**.

And **now** it was finally finished.

Reference

John McQuarrie, **Canadian Wings: The Passion and the Force**.

A 1/144 CP-140 Aurora

by Frank Cuden
IPMS Canada C3476
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Introduction

Right up front, I'm going to emphatically state that the 'Lightning Bolt' scheme found on some RCAF and Canadian Armed Forces aircraft is about the prettiest ever applied to any aircraft from any country, and that's saying a lot. From the Caribou to the CF-101 – from the B-25 Mitchell to the CP-140 Aurora, they just look dang pretty, so it was a no-brainer for me to embark on this build.

Luckily, a modelling friend of mine had squirreled away a **1/144 LS dedicated CP-140 kit (#1056)**, that he traded me even-up for an LS U.S. Navy P-3 Orion kit, and **Canuck Decals** (**www.canuckmodels.com**) had just what I needed – **decal set #004-144** for a couple of CP-140s in their original high-visibility white over grey 'Lightning Bolt' schemes.

The RCAF 'Lightning Bolt' Scheme

Thankfully, in 1948, and amidst some doubt, the RCAF powers-that-be authorized the first trial use of the red, white and black 'lightning bolt' fuselage flash and the distinctive **ROYAL CANADIAN AIR FORCE** 'shadow lettering' on some of its aircraft. Its use continued and the style evolved over the years, bringing us to what we see on the subject aircraft of this article. Thanks go to them, whoever they were, for approving the trial of such a beautiful scheme.

That Elusive Canadian shade - Grey, 1-GP-12c 510-109

With the help of **RT** Editor Steve Sauvé an original paint sample of **1-GP-12c Grey 501-109** was secured and sent to me. Then it was just a matter of mixing colours to get the right and unique shade of grey for the model. As it turned out, I had two formulas and two paint shades to choose from, however, in the end, I stuck with the mix that I've included in **Photo 1**. Another shade was listed on the kit instruction sheet and the third came ready-mixed from a tinlet of **White Ensign Models paint, (WEMCC M23 Modern Royal Canadian Navy RCN Grey 501-109), Photo 2**. **LS's** instruction sheet gave the following: "Aircraft Gray." - no more - no less, and as that was the only English-language 'instruction' I saw, is it any wonder that I discarded that 'formula' early on? The original mix in **Photo 1** is what I went with as it matched the swatch Steve sent me. He had obtained it from a CAF aircraft refinishing section (i.e., the paint shop) that was spraying this colour onto a **CC-129 Dakota**, so you don't get much more accurate than that. **White Ensign's** colour seemed too intense and too 'blue' whereas the original mix of **Testors Model Master enamels USSR Interior Green, Insignia White and Light Gull Gray**, seen on the right in **Photo 2**, made the shade 'spot on'.

Construction

I've built two LS P-3's in the past and the kit is quite nice without ill-fitting parts. Work began with basic parts gluing, with two of the four nacelle halves glued together in **Photo 3**. All the colours I used for the cockpit components and fuselage interior are shown in **Photo 4**. As an experiment, and after a fellow modelling cohort put me on to it, I used **Tamiya's Acrylic Light Gray** shade to spray the fuselage interior, as it was a close match to the standard **USN Dark Gull Gray** used on P-3 interiors. The experiment involved using lacquer thinner to thin the acrylic paint! Happily, my friend was right and the evidence is shown in the photograph. It went on like velvet. The other colours served to complete the interior painting.

Next up was a change to the Aurora wing-tips. LS provided the unique Canadian wing-tip substitutes so a simple saw cut facilitated the change, **Photo 5**. The discarded kit P-3 wing tip is to the left in the photo. Some changes to the sonobuoy ventral housing were needed and in **Photo 6**, I've filled in some of the tubes and expanded one of them, as per

reference photos I had. In reality, the sonobuoy tube pattern was changed to a slightly curved configuration however I elected to not go that far with the modifications I made to the kit. The changes I did make are visible in the photo.

As the kit's main wheel wells were devoid of detail, I decided to add some plastic strips and sheet to make them look the part, **Photo 7**, even though the wheel wells were very shallow as they came moulded in the kit. Once the landing gear doors were glued in place, the illusion of depth to the wheel wells would be plain to see. Once I had the kit 'carcass' together, I decided to not use the kit-provided windshield clear piece, opting instead to use plastic strip for window frames, **Photo 8**, and later filling in the voids with **Microscale's Micro Krystal Klear**. I carefully applied a minimum of putty to the seams of those tiny 'frames' and sanded them smooth.

Painting

Just like that, it was time for some paint and **Photo 9** shows the upper fuselage resplendent and covered with **Testors White** enamel, the small square bottles, that is. Again, from a modelling friend, I learned long ago to thin the enamel with lacquer thinner and when done spraying, empty the left-over contents but leave the paint residue in the colour cup. Add lacquer thinner, mix and then over-spray the area once again, using the thinned mix. Doing so will leave a glass-like finish and that's just what I did. Using my **Grey 501-109** paint mix, and masking off the upper cabin's white paint, I sprayed the lower areas of the model. When dry, I masked and sprayed the wheel wells with more of the **Testors White** enamel, **Photo 9**. **Photos 10 and 11** show the nose radome, anti-glare panel and windshield frames having been masked and sprayed with **Floquil Engine Black**.

Using an artist's soft-lead drawing pencil, I went over all panel lines on the kit, top and bottom, using a light touch, **Photos 12 and 13**. The kit instructions called for the small, rectangular ventral wing panel to be sprayed with **Radome Tan** and I complied. The flying surface leading edges were masked and sprayed with a lightened version of **Testors #1184 Yellow Zinc Chromate**. This simulates the protective plastic tape film that is applied to the leading edges of the Aurora's flying surfaces.

Markings

Just like that, it was time for the fun part – decal application. In **Photo 14**, I have cut the lighting bolt into sections and two have been applied. Attempting to apply the entire bolt would have necessitated my having three, maybe four hands, and so I took the easy way out. I had earlier put both wing and tail markings on the model. The decals reacted well with lukewarm water, **Microscale's Micro Set and Solvaset**. The **Canuck Models** decal sheet is quite comprehensive, right down to having 32 propeller tip decals that went on easily, too, **Photo 15**.

One decal fit problem is that I found the iconic 'lightning bolt' zig-zag at the front to be just a bit too acutely slanted to fit well on the **LS** kit. When I placed the forward 'point' close to the corner of the cockpit window, the 'reverse stroke' angles back and grazes the round windows on both sides. This problem is visible in the photos – nothing serious though. Interestingly, I noted that the **Canuck** decals do fit very well on the 1/72 **Hasegawa** kit.

Last Fiddly Bits

Once all decals were applied, I began the arduous task of making seemingly 'bazillions' of small blade antennas and their 'footpad' mountings, **Photo 16**, three examples of which can be seen in the photo. It just takes patience and thin plastic sheeting to add them.

Before I added the remainder of the antennae, I elected to fill the individual windshield windows and side fuselage windows with **Micro Krystal Klear**, **Photo 17**. The product dries clear and makes adding windows easy. The home-made window frames kept each window separate as I applied the **Krystal Klear**, a white glue-like substance. From my modelling friend, I found out that number 2 and 3 engines on the CP-140 *(note: aircraft engines are numbered, with #1 on the port side and carry on in sequence out to the starboard side)* had an air intake added to their port sides and I've duplicated that in the photo. I used plastic tubing to form and shape the small intakes which I understand were used to cool interior electronic equipment at the time. The small turbine exhaust pipes were sprayed with **Alclad II's Steel** and would soon be attached to the aft end of the engine nacelles. I used **Gator Grip White Glue** to glue them in place as it gave me time to align all four properly. Some additional constructed and painted blade antennas are also visible in the photo.

The number 3 propeller shows evidence of smudging, **Photo 18**. I surmised that the prop picked up some of the grime and exhaust from the small Auxiliary Power Unit (APU) panel on the lower right fuselage, forward of the propeller. It would

put out exhaust soot as it was running and cause the build-up on that individual prop. I saw evidence of it in a photo that I found on the Internet. Once again, it's the little things that count.

Other small details can be seen in the various photos of the finished model. Very thin fishing line, dragged under the tip of a black magic marker gently pressed down on my work pad, served as antenna wires, visible in the photos. A tiny dab of **Elmer's White Glue** is sufficient to hold the wire in place. When it dried, I carefully applied a heat source to make the sprue 'wires' go taught. I added small white instructional propeller stencilling that I found in my 'Miscellaneous' decal container and then glued the props on using the **Gator Grip** glue. It's a bit stronger than **Elmer's White Glue** and it also gave me time to adjust the props correctly.

A red outline surrounds the sonobuoy tube array location; this can be seen in the belly shot photo of the finished model. **Canuck** decals went so far as to provide small identification decals for EACH sonobuoy tube. I applied each one separately and they're all but invisible in the photo. Trust me though, because they're there. Also barely visible, in some of the finished model photos are the red anti-collision beacons I made from stretched, coloured sprue. An old toothbrush was heated and stretched to the proper diameter and then a slice of it was polished on an old Levi's jeans patch and then, glued in place, one on the top of the fuselage and one underneath. It's the little things that count!

Conclusion

At the end of the build, before the props went on along with other small items to be added, I found myself getting very anxious to complete the model and a couple of times, I had to walk away from the bench for a break. When I returned later on, I had a renewed sense of patience and determination. So take my advice, and when you feel yourself getting that way, take a break and come back to your project later. Who knows? Doing so might prevent a mistake or worse. Ask me how I know that!

Good Modelling.