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Editorial

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Are we there yet?

As I write this, at least around Ottawa, life is moving back towards what it was in the years ‘B.C.’ Very few people are longing for the good old days of masks and hand sanitizer, and pretty much the only human hobby contact coming through a computer screen. A sidebar casualty of COVID is that our local club found itself without a meeting place so the scramble is on to find new digs in 2022. This search is hampered, of course, by the still-prevailing precautions in place at the various locations in and around town. Until we find that new place we’ll be doing the Zoom meeting thing.

Stealing back shelf space, 1/4” at a time...

Like other modellers of a certain age, thoughts of downsizing the hobby footprint comes up for me from time to time. However, instead of kits, decals and such, over a few weekends I found myself going through reams and reams of paper articles that I’d printed off from various web sites, going back to the late-1990’s in many cases. Apparently I’d decided that these needed saving for some good reason or another, but in reality they’d just become unsearchable stacks of stapled paper sitting on my library shelves. Some of these hardcopy magazine articles were going straight through the scanner to become PDFs, then OCR’d for easier retrieval down the road. For others I decided to do a quick check online and found that

most of the internet articles were still available. I could now just simply save the PDF version of the article to a hard drive folder for the subject of a future build... at least that's part of the dream in my mind. What I found interesting is that all I had to do was punch in several unique-ish words - e.g., Hyperscale, 109G-10, and just part of the author's name, and that would usually get me back to the article in the few hits. I find it encouraging that a lot of these great old articles are lasting quite a long time in cyberspace, but the unsettling revelation was to also realize that a lot of great websites had completely disappeared. Those paper copies went through the scanner and that just validated my past printing and personal support of the Canadian paper industry.

I need to see your short bits...

One of the challenges I have for laying out each issue of **RT** is to find a total of 36 content pages that provide you with a balance of the various subject areas in the hobby. For those of you who might have an idea for an article that is only going to be two or three or four pages, that kind of material gives me a real helpful way to select several large articles and fill in the gaps in between with shorter articles. Even if your idea isn't the right fit for **RT** then it may be a great fit for **beaverRTales**. Please feel free to drop me a note and we can kick it around.

Anyway, on to Omaha...

At the April national executive meeting we decided that we're going to proceed with the IPMS Canada Best Canadian Subject Award at the IPMS/USA Nats this year. I've had some folks step forward to help out but if you're going and you're interested in helping out please get in touch with me. I'd be very glad to hear from you.

The IPMS/USA Nats...

With these uncertain times that we're going through at the moment, our IPMS friends to the south are, at the time of this writing, proceeding with the planning to hold the IPMS/USA National Convention in San Marcos, Texas. I don't think anybody could have seen this pandemic scenario coming, so I'm sure the Nats organizers are still really working hard to try and make this a safe and successful event. I'm sure that anybody who's ever worked on one of these shows is feeling more than a little sympathetic for what they're going through to try and make a go of it.

At this point I don't know what the travelling to the USA will be like in August, or even if Mrs. **RT** Editor will let me out of the city, let alone out of the country, until this thing is in the rear view mirror. Anyway, IPMS Canada is still hoping to support the Nats and to hold the judging for the IPMS Canada Best Canadian Subject Award. So if you're thinking of heading down there please get in touch, especially if you'd like to help out with any of the aspects of the awards process. Details from last year's event are still on the IPMS Canada website.

CF-5A Freedom Fighter

Conversion

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History

Built under license by Canadair Ltd., of Montreal, QC, the CF-5 Freedom Fighter (official CAF designation CF-116) served Canada from 1968-2005 in a variety of roles. These included tactical fighter, tactical reconnaissance, adversary training aircraft, and most notably, as a lead-in fighter trainer. Pilots who would fly the CF-5, CF-101, CF-104 and CF-18 at operational squadrons, completed a six-month Basic Fighter Pilot Course (BFPC) on the CF-5.

The CF-5 saw a few changes from the original F-5A model from which it was derived and built by Northrop in the USA. These changes included:

- a two-position nose gear extension, which raised the nose for takeoff, resulting in a shorter takeoff roll, after concerns were raised about the jet's long takeoff run
- Orenda-built CAN J85-15 engines were installed (this is the same engine used by the CT-114 Tutor, but augmented with an afterburner)
- aerial refuelling capability
- an interchangeable nose, allowing for a film camera reconnaissance nose to be installed.

Only two squadrons would operate the CF-5 initially; the French language 433 "Porc-Épic" ("Porcupine") *Escadrille tactique de combat* (Tactical Fighter Squadron) formed at Base des Forces canadiennes (BFC) Bagotville, QC, in August 1968, and 434 "Bluenose" Operational Training Squadron (Sqn) formed at Canadian Forces Base (CFB) Cold Lake, AB, in February 1968.

No. 434 Sqn was to provide lead-in fighter training but did not fulfill that role, instead being designated as a rapid reaction squadron, intended to deploy to support NATO forces in Europe, should hostilities break out against the Warsaw Pact. Later, in September of 1970, 434 was redesignated as 434 Tactical Fighter Operational Training Squadron, before dropping its training duties and becoming 434 Tactical Fighter Squadron in December of 1978. After that, in July 1982, 434 Sqn moved to Bagotville and joined 433 Sqn before moving on to their final home as a CF-5 unit at CFB Chatham, NB in 1985. 433 Squadron would transition to the CF-18 in 1984, while 434 Squadron was redesignated as a Composite Squadron in July of 1992, and transitioned to the CC-144 Challenger and CT-133 Silver Star.

On November 9, 1970, 1 Canadian Forces Flying Training School (CFFTS) transitioned to the CF-5, having previously flown the CT-133 Silver Star in the advanced pilot training role, before moving to CFB Cold Lake in July 1971.

No. 1 CFFTS became 419 "Moose" Tactical Fighter Training Squadron, standing up again in Cold Lake September of 1977, then disbanding in June of 1995. After the retirement of the CF-5, Fighter Lead-In Training was done on the CT-114 Tutor, before 419 Squadron was reactivated in July of 2000, flying the CT-155 Hawk.

The Base Kit

As of this writing, there is no F-5A/CF-5 kit available in 1:32 scale. Hasegawa did release a 1:32 F-5E Tiger II, kit S22/08022, but there are many differences in the shape of the rear fuselage and wings when compared to the F-5A.

Eventually, Belcher Bits (belcherbits.com) would release a resin conversion set, which included the rear fuselage, F-5A engine air inlets, bottom fuselage speedbrake panels, wingtip external fuel tanks, centreline external fuel tank and pylon, air refuelling probe and instructions for how to modify the wings and vertical stabilizer.

Before continuing, please allow me a bit of a side story. I built this kit for a friend in Alberta. He is an avid model builder who likes to build models for his son, and he wanted a 1:32 CF-5 for the collection. So, he ordered the Hasegawa kit, Belcher Bits set, a Verlinden F-5 upgrade set (*out of business, but may be available online*), Scale Aircraft Conversions' (SAC) (scaleaircraftconversions.com) metal landing gear and decals from CanMilAir (*now available at abovebelow.ca*). After seeing all of the resin and photo-etch brass and how involved the conversion was, he was definitely in over his head. Enter, me! I had been curious about doing this conversion for a while and jumped at the chance when asked to build the model. What can I say; I like a challenge. So the entire lot was packaged up and mailed to me in Saskatchewan.

The Build

Starting off with the Hasegawa kit, you need to use the:

- forward nose section,
- wings,
- canopy and windscreen,
- engine cooling louvres,
- nose and main gear doors,
- wing pylons,
- main and nose tires,
- gun bay upper and lower doors,
- exhaust nozzles,
- horizontal stabs and
- vertical stab.

At this point, you can decide to use the kit cockpit, or go with a resin one. Since I had the Verlinden update set, I used the resin cockpit that was included with the project components that were sent to me by my friend.

Nose Section

The build started with the nose section. The Verlinden set also included a resin gun bay, to replace the exposed left-side bay in the kit. The kit gun bay was carefully cut out and discarded. Along with the resin Verlinden bay, there is a photo-etched lip that gets installed around the bay opening, before the bay itself is installed. (**Fig. 1 and 2**) With the gun bay installed, I ended up using the gun that came in the kit, as well as the ammunition feed belt. A photo-etched belt is provided in the Verlinden set, however, bending it to the proper shape proved fruitless, so it was discarded.

Cockpit

Moving on to the cockpit, the Verlinden set comes with a well-cast (for its day) cockpit tub. The usual sanding, grinding and dry fitting yielded a good fit. (**Fig. 3**)

The Verlinden set also included sidewall panels for the cockpit, as the detail in the Hasegawa kit is non-existent. The canopy opening/closing mechanism was next and there was one from the Verlinden set, however, to speed up the build, I used the kit parts and dressed it up with some of the photo-etched parts. The instrument panel ended up being a mix of the Verlinden panel, and a top portion provided by the Belcher Bits conversion set. (**Fig. 4**) Photo-etched rudder pedals were added, and then the cockpit tub and instrument panel were painted in Dark Gull Grey FS 36231 and black. For the instrument panel, instrument face decals from Airscale (airscale.co.uk) were applied, and then switches were picked out with a fine brush. (**Fig. 5**)

Moving on to the ejection seat, the kit seat was not used, in favour of a resin seat replacement. The Verlinden offering was decent, but still lacking in detail. True Details came to the rescue, with a really well cast F-5 ejection seat (no longer produced), with moulded-on belts. (**Fig. 6**) The seat was painted up and the belts and buckles detailed with a brush, then the seat was given a wash and a flat coat, and was installed later, during the final assembly of the model. After installing the cockpit, the nose section was closed up and set aside. (**Fig. 7**)

Rear Fuselage

Attention now turned to preparing the resin aft fuselage section, which is produced by Belcher Bits. The casting was well done and free from air bubbles.

Starting at the front, a section of resin was ground away with a Dremel rotary tool, which would allow the Hasegawa nose section to plug into the aft fuselage. (**Fig. 8 and 9**) Looking at the inside of the fuselage halves, the obvious consideration is the weight of the resin; it's heavy. In order to try and cut down as much weight as I could, I went to work and started grinding and removing resin from inside the fuselage halves. This was quite time consuming, but well worth the effort, in addition to making sure the landing gear can support the full weight of the finished kit. Satisfied that I had adequately addressed the weight issue, the fuselage halves were dry fitted together. The fit on my example was great, with no warping at all. However, I did run into a significant problem when I turned the fuselage over and looked at the underside.

The bottom of the right side fuselage half had a sizable slope to it and when joined with the left fuselage half, I was left with a significant step to try and deal with. (**Fig. 10**) My first thought was to try and build up the area with putty or cyanoacrylate (CA) glue. However, that would have been very time consuming and may not have yielded good results, considering the size of the area that needed to be filled. After much consideration, I decided to build up the area with Evergreen plastic strip, attached with CA. After building up the strip, the entire portion was first contoured, then filled with Tamiya White Putty, then sanded again. This gave me a nice smooth surface and flattened out the bottom of the fuselage. (**Fig. 11**)

With that hurdle cleared, I mixed up some 15-minute epoxy and proceeded to glue the fuselage halves together. There are slots on both sides of the fuselage to accept the engine cooling louvers, which came with the kit, so those were installed, along with the vertical stab. Finally, the Hasegawa forward fuselage was attached with epoxy and shimmed to make sure it was as straight as possible. The final touches were the resin inlets from the Belcher Bits set, as the inlets on the F-5E were incorrect for the F-5A. (**Fig. 12**)

Wings

With the fuselage together, it was time to turn to the wing. There are larger leading-edge root extension (LERX) on the wings of the F-5E, compared to the smaller ones found on the F-5A. Luckily, Belcher Bits took all the guesswork out of where to cut, as the instructions provided templates. In addition to cutting the LERX's off the wing, the wing root must be cut to match the contours of the Belcher Bits fuselage. (**Fig. 13**)

One other piece of work that needs to be done to the wings is that holes need to be drilled into the wingtips and stiff wire installed. (**Fig. 14**) This is for mounting the distinctive wingtip external fuel tanks that were routinely carried by the CF-5. With all of the modifications complete, the wings were attached to the fuselage. Pieces of brass and copper tubing were added to drilled-out holes in the fuselage, which gave the wings more support, and then the kit horizontal stabilizers were pinned and attached to the fuselage with 15-minute epoxy.

Final Bits

Some final tasks that would complete the major assembly were the engine nozzle openings and the inflight refuelling probe. With the Belcher Bits fuselage, the openings to receive the nozzles are not open, which meant holes would have to be bored into the excess resin on the inside of the fuselage halves. This was done using a Dremel, and with the amount of resin, this took a while to complete. Eventually, I was able to open up the holes enough that the nozzles would slide into position. (**Fig. 15**) The final touch was adding the inflight refuelling probe. The probe is mostly made up of resin, but also requires bending a piece of aluminum tubing, then installing the probe tip. One thing that was not included was the distinctive light on the leading edge of the probe mount. The light is used to illuminate the refuelling basket during nighttime refuelling. This was a simple addition, just by cutting out the appropriate-size slot, then gluing and shaping a piece of clear sprue. (**Fig. 16**) The Belcher Bits set also included cooling vents that are installed on top of the fuselage, on either side of the tail and two for the underside of the fuselage, on either side of the tailhook (which is also Belcher Bits). One final touch to the wingtip external fuel tanks was to cut off the tip and replace them with pieces of red and green toothbrush handles, to simulate the position lights. These were sanded to shape and polished. The windscreen was added and masked, and the masked canopy was temporarily tacked into place, completing the major assembly. (**Fig. 17**)

Painting and Markings

The particular CF-5A that I was building was assigned to 419 "Moose" Sqn in Cold Lake. The scheme was what was referred to as the "Ghost" scheme, which consisted of a three-tone grey camouflage paint job.

Starting off the painting process, the model received a coat of Tamiya rattle can fine grey primer. Any final spots needing additional filling and sanding were addressed, then painting started. The model was painted with a mix of Gunze H337 Blue-Grey (FS 35237), H317 (FS 36251) and Tamiya XF-25 Light Sea Grey (FS 36307); these were thinned with 70% isopropyl alcohol and applied with a Badger Crescendo 175 dual-action airbrush.

After a couple of coats of Tamiya X-22 Gloss Clear, the decals were applied. The decals came from CanMilAir (*now available at abovebelow.ca*), and at the time, they were the only decal company offering 1:32 CF-5 decals. Being ALPS-printed decals, they were given a coat of Microscale Liquid Decal Film to protect them from possible damage. Micro Sol and Micro Set were used during the decal application process and the CanMilAir decals responded very well. (**Fig. 18**). One final touch was adding the name of my friend's son to the canopy rail. This was done by using lettering from a Leading Edge 1:32 CF-18 decal sheet. It was a little tedious applying each letter individually, but well worth the effort. Another coat of gloss was applied to seal the decals, followed by a coat of Tamiya XF-86 Flat Clear. Weathering was kept to a minimum as my friend wanted a fairly clean model.

Final Assembly

As mentioned earlier, between the weight of the resin and the larger amount of nose weight needed, this model is heavy. Using the Hasegawa plastic landing gear is simply not a wise option. My friend also bought SAC metal landing gear and they were sufficient to hold the weight of the finished model. The kit wheels were used and they fit to the metal gear with no problem. The kit gear doors were also used, as were the wing pylons, which were left empty. The centreline pylon and external tank are from the Belcher Bits set, and the only addition needed to the tank is the rear fins, which were cut from sheet styrene. The speed brake panels on the underside (also Belcher Bits) were added, followed by the left side gun, ammunition feed belt and the gun bay doors. With the addition of the engine nozzles, that brought the kit to its finished state. (**Fig. 19 - 20**)

Conclusion

All told, the kit was built over a four-to-five month period, with the preparation of the resin fuselage and solving the step problem on the underside taking the most time. Once addressed, assembly actually went quickly and the kit was a joy to build. The model would go on a short road trip with me to Regina and IPMS Regina's Model Expo contest, where it took home the Best Canadian Aircraft award. Considering the weight of the model and not wanting to risk damage going via Canada Post, my friend planned a trip to Saskatoon, where I presented the model to him. I'm happy to say that, he was pleased with the model.

I actually enjoyed this build way more than I thought I would. So much so, that when a 1:32 Hasegawa F-5E showed up at the club's fall swap and sale, I immediately grabbed it! It sits in the stash, waiting for the day when I order the Belcher Bits set and start a CF-5A for myself. So, with that, I will leave you with the motto for 419 Sqn, and that is Moosa Aswayita - Beware the moose.

References

- Canadair CF-5-Canadian Profile, Robert McIntyre, ISBN 978-0920375020
- Canadair CF-5 Freedom Fighter, Anthony L. Stachiw, ISBN 9781551250731

Aftermarket Used

- | | |
|--|-------|
| <input type="checkbox"/> Belcher Bits 1:32 CF-5A Conversion | BB19 |
| <input type="checkbox"/> Verlinden 1:32 F-5E Update Set | 1739 |
| <input type="checkbox"/> True Details 1:32 F-5 Ejection Seat | 32404 |
| <input type="checkbox"/> CanMilAir 1:32 CF-5A Decals | |
| <input type="checkbox"/> Scale Aircraft Conversions Metal Gear | 32047 |

About the author:

Born in 1975 in Saskatoon, SK, Colin Kunkel was a member of IPMS Saskatoon from 1990 to 2005, before moving and joining the Regina Scale Modellers. He rejoined IPMS Saskatoon in 2012 and is still active with the club. His interest in aviation started early, and he has been modelling aircraft since age 10, with his primary interest being RCAF subjects. He got hooked

into the hobby after watching his dad build various models on the kitchen table. He is also an avid aviation photographer who enjoys travelling to many air shows and regularly attending Exercise Maple Flag in Cold Lake, AB. Colin currently volunteers with a local Air Cadet Squadron and helps cadets build scale models as part of their training.

Building an M274 “Civi-mule”

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Background

When S-Model burst onto the small scale armour scene close to a decade ago, they caused quite a stir. Their subjects were interesting and well moulded. At the time they announced a future release for the M274 Mechanical Mule. As the years passed it failed to appear. Finally, after a long wait, it was released a couple of years ago and I bought one immediately. Unfortunately, it proved to be one of their poorer efforts.

The Kit

Inspection of the contents revealed a few points of concern.

First was a set of ejector pin marks on the underside of the bed, marring the nicely detailed boards, but the wheels were the biggest disappointment. For some reason there was no tread on the tire's backside, something that came as a complete surprise. Also of concern was the included photo-etched brass. It provided parts for the driver controls, a railing that runs around the perimeter of the flatbed, and the protective guard for the underslung engine and transmission. The railing was most worrisome. Not only was it flat looking, but its excessive length and thinness just screamed trouble. Even though I've worked with my fair share of photo-etched brass, I could only see problems trying to remove it from its fret without producing a crease, and even less chance of attaching it without causing serious damage.

The Plan...

Not relishing the idea of using the kit's etched railing I scoured Google for examples of Mules minus railings. Apparently the military wasn't keen on removing the rails but I did find many ex-military Mules in civilian employ, sometimes with radical changes made by their new owners. This revelation finalized my decision to build a “civi-mule” by cherry-picking various civilian modifications to make my model substantially different from what you see in the military. Was this a cop-out on my part? Possibly. But isn't the whole idea behind modelling is to have fun, right?

Detailing, the big stuff

Detailing decisions were as follows:

1. On the real vehicle, the driver's footwell is an open frame design, whereas the kit has it molded as a solid plastic part. I found a few civilian Mules that had this area completely rebuilt, so I decided to keep the kit's driver's footwell as is. My only change here was the addition of foot controls - brake, clutch and gas pedal, and some diamond pattern tread plate on the floor.
2. Add a roll bar.
3. Fashion a set of side boards to replace the railing.
4. Add a battery box with cables.
5. Find better wheels. I was unable to locate aftermarket replacements, but fortunately I was able to convince my buddy Will Alcott to design and print some 3D versions for me. Actually, it actually wasn't too difficult to twist his arm on this as he's an avid Vietnam War modeller and he too needed new wheels for his copy of this kit.

Detailing, the little stuff

Other minor detailing items included:

1. Run an exhaust pipe from the cylinder heads to the muffler.
2. Add driver control rods that run from the front to the engine.
3. Replace the shift levers.
4. Add a fuel filler neck and cap to the gas tank, plus cover over its hollow backside.
5. Replace the driver's seat (though I later reverted back to the kit's seat).
6. Add stowage items to the bed.
7. Replace the not so round looking drive shaft and steering wheel shaft.

The build

So, on with the build. To ease painting I built the kit as a set of sub-assemblies (**Fig. 1**).

I started with an attempt at repairing the ejector pin marks which was only partly successful.

Next was the side boards and roll bar, as they would be the critical path. Failing to make these to my satisfaction would result in a change of plan. The side boards were measured and cut from Evergreen plastic strip and then scribed with the tip of my hobby knife blade to represent wood grain. Stakes were glued to the outside of each board. Thin pieces of plastic U-channel strip were cut and added to the side of the bed to trap the stakes and keep the side boards in place. The left board received a semi-circular cut to allow the gas tank's filler neck to pass through. (**Fig. 2**)

Next was the roll bar (**Fig. 3**). I waffled for a time on whether to make it with plastic or brass rod. The brass option eventually won, deemed as the easier solution. It took a few attempts to obtain an equal bend to each side of the upright. I decided that the angled support braces would be easier done in plastic, so I found some equal diameter rod, angle cut the ends and super glued them to the brass loop. The roll bar was completed with a set of four base plates fashioned from plastic strip glued to the bottom. A test fit with the side boards in place showed no interference.

The build, on the bottom side

Moving to the underside, an exhaust pipe was my next addition. The two piece engine is tiny, as is the muffler. Using copper wire to represent the pipes was an obvious choice. I started by drilling a hole in each cylinder head, then glued a loop of wire between them. Another short length of wire connected the loop to the muffler. Needless to say, much trimming, adjusting and test fitting was needed to get everything connected.

Keeping with underside work, the gas tank was glued in place after covering its hollow backside and adding a filler neck along with a cap (**Fig. 4**). A battery box was scratchbuilt using plastic strip and square rod. On its rear a pair of copper wires were added to represent cables. Next a couple of control rods, cut from some guitar wire, were run across the underside from a scratch built front linkage to the transmission.

Return to the top side

Returning to the upper side, the roll bar was glued in place. Next was the driver's footwell. Control pedals were added employing spare box brass leftovers (**Fig. 5**).

The addition of some etched brass diamond plate completed the floor (**Fig. 5**). Tie down loops located at the rear corners of the bed were fashioned from copper wire. Sections of guitar wire topped with Bondic knobs replaced the flat photo-etched gear changing levers. A replacement steering wheel shaft and supporting brace were replaced with sections of plastic rod, along with a brass adjusting knob from the spares box finished the major detail work.

Roll out the barrel...

As this was to be a "working man's" vehicle, the naked bed needed filling, so I grabbed a shovel and pick from my parts box. Resin aftermarket items from Armand Byardi, Orange 3D and Value Gear respectively, supplied a pail, a small fuel can, and a tarp. But it was still missing something. Then I remembered my burn barrel. (**Fig. 6**)

Back at the 2019 IPMS USA Nats I had picked up a few sets of AK Interactive's Weathering Pencils. After attending a demo on how to use them, I checked out AK's website for further ideas upon my return home. I ran across an excellent

tutorial on how to produce heavily weathered oil drums, so I selected a barrel that I had already been primed and pre-shaded laying in my parts box for a test run. Within a few minutes I had produced something similar to what I had seen in the tutorial, so the barrel was returned to the box with the plan to use it sometime in the future. Well, that time had come with the M274.

Painting

So, with the bed sorted out, it was time to move onto painting.

Model Master enamel paints remain my 'go-to' choice, that is until my supply runs out.

To start, everything received a primer coat of Light Grey (1732). Gloss Black (1747) was used on the steering wheel. I wanted this to be the only brand new looking item on the model. Gloss Red (1103) on the fuel can finished my gloss painting. Flat Black (1749) was sprayed on the wheels and pail. Major components were pre-shaded with Raw Umber (2006). Next, everything save the side boards, received light coats of Olive Drab (1711) in thin coats allowing some of the pre-shading to show through. Sideboards received thin, randomly applied streaks of Wood (1735), Mid-Stone (2052), Dark Earth (2054) and German Panzer Grey (2094) to replicate old weatherbeaten wood. A dry brushing of Gunship Grey (1723) completed paint work for the side boards.

Next, everything painted flat was sprayed with Glosscote straight from the aerosol can to level the finish. The kit was left to dry for a week in my homemade drying booth.

Detail painting followed using a brush. Battery box wires were done in Flat Red (1705) and Flat Black. Leather (1736), followed by a dilute flat black wash, plus some tan and rust hues applied using AK Interactive Weathering Pencils replicated a rusty exhaust system. Weathering pencils also added rust and dirt to the etched engine/transmission guard. Tire weathering was accomplished with washes of Afrika Dunkel Grau (2103) and soot coloured Tamiya Weathering Powder.

Weathering

A filter of very dilute Afrika Dunkel Grau toned down the olive drab. Working with enamels makes this a bit tricky as the filter could easily lift the underlying paint layers. My trick is to use a hair dryer to speed the process and reduce the drying time of the thinner. A final spraying with a coat of Golden brand Hard MSA Varnish with UVLS (Matte) thinned with lacquer thinner protected the finish.

Final assembly

Next all the components were brought together. Fortunately the chassis pretty much covered all the ejector pin marks on the underside. The engine/transmission guard proved difficult to add, even after many successful dry runs during construction, and it bent a few times. No matter, the bends gave it a well used look. Any glossy spots from the CA glue were touched up with a brush. The shiny steering wheel was the last addition.

Conclusion

Well, that was fun. I got to stretch my modelling skill further to produce a one-off M274. These "swords into plowshares" civilian subjects are just the ticket to let your imagination run wild.

About the author

Al Magnus was born in Regina where he has spent the majority of his life. His modelling got started during his pre-teen years, followed by about a 20-year hiatus. Returning to the hobby in the mid-1990s he joined the Regina Scale Modellers soon afterward. Al exclusively builds to 1/72 scale and his primary interest is armour, with some dabbling in aircraft, sea vessels and rockets/missiles. He retired in 2009 after 29 years as a public servant. Al and his wife Janice have been married for over 35 years and they have a son and daughter.

The Airfix kit becomes an (almost) OOB

442 Sqn RCAF Mustang Mk. IV

Wayne Beattie

C#3174

Moncton, New Brunswick

I bought the 2017 release of the Airfix 1:48 scale Mustang Mk IV / P-51K in 2019 with the intent of building a wartime RCAF Mustang. I picked the natural metal aircraft flown by RCAF Squadron Leader Mitchell "Johnny" Johnston. I had heard some good things about the kit so I thought I would see what the difference would be between this and the older Tamiya kit that I have built several times in the past.

I decided that this was going to be a quick build. I only had a short time to build as I wanted to take it to the IPMS Ottawa CAPCON contest in September of 2019. I bought the kit in July of the same year, so out-of-the-box was the best way to build. I didn't like the seat that came in the kit, it is very plain, so that is why I went with the Ultracast seat as I had it in my stash.

The Build begins - the cockpit

As usual, the cockpit was the first thing to be tackled. The sidewall panels in the kit come as separate pieces; I assume for Airfix to be able to make different versions with the smallest amount of changes to the moulds as the earlier Mustang cockpits have a different layout than later versions of the bubbletop D. (**Fig. 1**) The kit's cockpit is nicely detailed: Airfix gives the oxygen hose as a separate piece so it has some nice 3D detail and easier to paint; decals are even given for data plates on the sides of the cockpit. Little details like that really help bring the cockpit to life. I used Vallejo paints throughout with one exception; I decided to use a darker shade of interior green than normal for P-51's to give the aircraft more of a used appearance. (**Fig. 2**)

Everything went together pretty well with no real fit issues encountered along the way. (**Fig. 3 and 4**) The parts that fit under the cockpit floor, the radiator, fit really well.

The glare hood that shades the instrument panel fits into the windscreen before being added to the fuselage. (**Fig. 5**) The windscreen piece also makes up part of the fuselage. This cuts down on any sanding as the part sits on existing panel lines. I masked the clear parts with 3M Scotch Magic tape (the frosted type) as I seem to have an easier time with that compared to other types of tape.

I also drilled out the holes that are present in the canopy brace. (**Fig. 6**)

The one thing that made this a not "out-of-the-box" build was that I used the Ultracast late-version seat for the Mustang (ultracast.ca/product-p/ult48016.htm). (**Fig. 7**)

On to other things...

The kit comes with two different versions of the tail with the fillet. I am not sure what the difference is, but just make sure you use the correct parts for the version you are doing. The tail pieces have to be attached to corresponding fuselage sides before gluing the two fuselage pieces together. I got the fuselage together to see that the nose had a little bit of a warp to it, but it was a slight warp that really didn't affect the fit. (**Fig. 8**) Everything went together smoothly.

Wings

Next came the work on the wings. The upper and lower wing had a groove and raised section to make sure they fit together properly. (Fig. 9) Here is where I had a small fit problem. I had to use a few alligator clips to make sure they went together properly when glued and drying. (Fig. 10)

Painting

Since the model was going to be painted in various shades of natural metal I gave it a primer coat of Vallejo Mecha Black. It is a satin-finish black that goes down so smooth that I didn't even bother with polishing the primer.

For the natural metal paint I used the Vallejo Metal colours. (Fig. 11) I used five different shades on the Mustang. For the wings I used **Vallejo Metal Color Silver**. Where the wings were painted I wanted a different shade than the fuselage colour. The wings of the Mustang had the rivets puttied over, and then painted, to give them as smooth a surface as possible. This helped the laminar flow wings to be as aerodynamically efficient as possible. The diagram below shows the puttied area. The gun bay doors were left unpainted on the real thing, so I gave them a coat of **Duraluminum**.

The fuselage colours were **Aluminum**, **Dark Aluminum** and around the exhausts I used **Light Burnt Metal**. After each layer of paint I gave it a quick polish with a soft cloth. Later, once all the markings were done, I went back and gave the gun doors a coat of flat to make sure they looked different than the rest of the wing.

Yellow trim

With the metal work done, I masked the plane off and started to paint the areas that were going to be yellow. I gave the areas a light base coat of light grey. Normally it should be white but I do not like painting white; I never seem to have a good experience with that colour. (Fig. 12 and 13) The anti-glare section and the leading edge of the wings were painted Insignia Yellow. I let that dry overnight and then masked the yellow to paint the dark blue cheatline that goes below the yellow anti-glare shield and around the framing of the sliding part of the canopy.

The kit comes with the AeroProducts prop that this plane used. The spinner was painted yellow, but the fun part was masking the tip of the spinner to paint it black.

Markings

The decals I used were from the IPMS Canada sheet that I picked up a few years ago ([still available at ipmscanada.com/shop/](http://ipmscanada.com/shop/)). (Fig. 14) They were nice and thin and they went on without any trouble. (Fig. 15)

Conclusion

Overall it was a nice kit to build. Would I build another? Yes, I bought another one and am currently building it but that is another article.

About the author:

Wayne Beattie was born in Shawville, QC and moved to Sussex, NB in 1976 with his family. After graduating in Engineering Drafting and Design Technology from the NB Community College, he eventually settled in Moncton in 1987. He currently works for the New Brunswick Liquor Corp., and has been married to Susanne since 1990. He builds mostly 1/48 aircraft, but has been delving into figures. He has been a member of IPMS Canada since 2003 and is a member of the Muddy River Modellers.

Let's build a TERMINATOR

Barry Maddin

C#6000

Truro NS

I'll be back!!!

Sorry, it's not that Terminator but a Russian BMPT (*Boyevaya Mashina Podderzhki Tankov*, or Fire Support Combat Vehicle). Originally conceived in 1984 and based on the T-72 tank chassis, three prototypes were developed in 1987 but with the ongoing development of a new Soviet main battle tank chassis, the T-90A, the plan was put on hold. In 1991 the plan was to base the BMPT on the T-90A, but with the collapse of the Soviet Union the funding ceased. In 1994 during the Chechen War the Russian units did not fare well in the street battles and in 1996 the BMPT project was restarted.

The BMPT chassis was again based on the T-72 tank frame and it was presented at the Russian Arms Expo in 2002. It was armed with two turret-mounted 30 mm 2A42 Automatic Guns and the Ataka Guided Weapons System with four 9M120 Ataka Missile Launchers. Additionally, mounted on the fenders of the front hull there were AG-17D automatic grenade launchers. With a crew of five it weighed in at 48 tons; it was powered by a V92S2 diesel engine and had a top speed of 60 km/h and a range of 550 km. Because of its weapons and appearance it was named the "Terminator."

The Kit

This is part of the Meng 'Tyrannosaurus' series, kit # TS-010 (**Fig. 1**) and represents the first full-production Terminator. The kit is impressive with 1520 parts – 579 in black styrene, 471 in dark green styrene, 429 in black vinyl, 15 clear, 25 photo-etch, two metallic mirror stickers and one piece of string. Although it should be noted that 980 of the kit parts are just to build the tracks.

The instructions are in a 27-page booklet with 41 steps, including excellent colour plates giving three finishing options with Vallejo paint colours called out. Additionally there are three aids provided to help with the assembly:

- a three-part jig to help in the track assembly,
- an aligning jig to set the correct height of the torsion arms in the suspension, and
- a photo etch painting mask for use with the road wheels.

The instructions are clear, with well-drawn views which accurately show the placement of the parts. The moulding is extremely well done with excellent raised detail and very fine mould lines.

I had some concerns with the very fine parts; however the plastic cut cleanly with my side cutters and I didn't even break any parts while cleaning them up, which is a miracle in its own right.

The Build

Road Wheels. Step 1 consists of the road wheels, idler and drive sprockets which employ a poly cap enabling easy mounting on the suspension arms. The outside horns on the idler are thin and can easily be bent, but everything else is solid and goes together well. The detail on the road wheels is very good, even the real mould lines on the rubber portion of the wheels (**Fig. 2**).

Lower Hull. The lower hull is very well detailed (**Fig. 3**) and engineered so that the parts fit and alignment allowed everything to go together with no problems. The front lower glacis plate with the self-entrenching dozer blade looks great with excellent surface detail. The torsion bars with support arms have a squared end which fits onto a slot in the hull.

Using the torsion bar jig it enables you to glue the ends in place with the support arms at the correct height (**Fig. 4**). I held off installing the road wheels, drive sprocket and idler wheels so that I could paint and weather them separately.

Tracks. The track assembly was next on the agenda. Each track link consists of a track shoe, guide horn and end connectors (**Fig. 5**).

Meng supplies a three-part jig to aid in the assembly of the track (**Fig. 6**).

I didn't quite follow the instructions for the assembly which has you attaching the guide horns to the track and then detaching the sprue runner. I found it easier to clip it off the runner and then attach the guide horn to the track shoe. The guide horns clip into place relatively easy and when you have six shoes hooked up you set them onto the base of the jig. The end connectors come with five ends on a segment of sprue which is fitted into the end connector jig (**Fig. 7**) with the sprue then cut off.

Now you have the end connectors in the jig (**Fig. 8**) and placing the track shoe cap on the main jig you simply slide the end connector jig onto the main jig (**Fig. 9**) which sets the end connectors in place on the track link pins (**Fig. 10**). Simply repeat many, many times for 81 links per track. Once you get into the rhythm the track goes together fairly quickly and holds together without glue and stays flexible. I set the track aside to be painted later.

Odds and Ends. I continued the build following the sequence in the instructions, although I left off the side skirts because I hadn't installed the road wheels yet. The tow cable which is mounted on the rear hull plate consists of a kit-supplied string. Although the string looks good without any sign of fraying I preferred to replace it with .032" Artistic Wire. The Artistic Wire is flexible and looks great as a tow cable (**Fig. 11**). It can be found at many arts and crafts stores.

At this point I drilled a hole in the bottom of the hull to facilitate a mounting bolt that would secure the vehicle to a wooden plaque when the build was completed.

Clear parts The kit comes with a full range of clear parts for all periscope and sight lenses, with the instructions indicating they should be painted Vallejo 938 Transparent Blue. I painted the backside of the clear items with the transparent blue which gives the lens a nice blue colour but preserves the glass-like face. All the clear items fit snugly in their housings and looked great, although they will require masking before painting the vehicle.

Photo-Etch The photo-etch provided in the kit is very thin and the various screens are extremely detailed; however the most delicate item is the two hinges used for the grenade operator's armoured hatch covers. The tabs, which fit through a cast slot on the hatch cover, bend REALLY easily but once set in place a careful folding of the tabs forms the hinge (**Fig. 12**).

Hatches. I filled in the ejector pin marks on the inside of the hatch armoured covers since I planned to have a hatch open and the pin marks would have been visible. The hatch covers also have a weather cover along the back edge which is provided in black vinyl which responded well to Tamiya Thin liquid glue (**Fig. 13**).

Painting and Weathering. I intended to paint the lower part of the chassis and the running gear so that I could weather the area before painting the upper part of the chassis. Using Humbrol Masking Fluid I masked off the ends of the support arms and sprocket and idler axles thus the chassis was now ready for painting.

Using a mix of Tamiya XF-1 Flat Black (70%) and XF-63 German Gray (30%) I painted the lower chassis and the inside surface of the track, road wheels, sprockets and idlers (**Fig. 14**).

After drying for a day I then painted over the black base coat, except for the track, with a 50:50 mix of Tamiya XF-61 Dark Green and XF-58 Olive Green. I taped off the edges of the supplied photo-etch wheel mask and found it easy to paint the road wheel centres, leaving a clean edge with the rubber area still painted in the black base coat.

I weathered the painted area of the chassis and running gear with Quartermaster Pigments # 10003 Raw Sienna and # 10006 Burnt Umber, mixed 50:50. After removing the masking I installed the road wheels, sprockets and idlers. I then

coloured the wear area of the track horns with a silver pencil. I installed the track with no problems, with the 81 track shoes fitting perfectly (**Fig. 15**).

Turret assembly. I assembled the turret, which went together like a dream. I had to study reference pictures to get the position of the photo-etch bits that sit alongside the weather covers of the 30 mm guns. This was the only spot in the instructions that I found to be fuzzy about the correct location of a part. I mounted one of the missile launchers in a raised position to show that they are not locked into a set position on the turret. The only spot that needed putty was the joint on the front of the weather covers by the 30 mm gun barrels (**Fig. 16**).

With the periscopes and sighting lenses masked I painted the turret with the black base coat as with the chassis (**Fig. 17**). After drying for a day I painted the turret with my green mix.

Colour Scheme. Having looked at the colour reference provided with the kit and studying various pictures found online, I decided I would forego the standard paint schemes. I noted that the Ukrainian Army was deploying digital camouflage on their armoured vehicles so I thought the Russians might do the same for the forces they were supporting in that conflict. So I decided to apply a digital scheme of my own to the Terminator. I started by drawing digital-type shapes and laying out strips of Tamiya tape onto a ceramic tile (**Fig. 18**).

Using a new #11 blade in my scalpel I cut the strips into various sized strips and squares. I placed the bits of tape on the turret in a random digital pattern, taking care to burnish the edges down with a wooden cuticle stick (**Fig. 19**).

The trick is to keep in mind where the pattern is placed in relation to the colour of that part of the pattern. To prevent the bleeding under the tape edges of a different colour I painted a sealing coat of the green over the tape. If there was any bleeding it would be the same colour and therefore not show. I then painted the turret with Tamiya XF-52 Flat Earth and when dry I laid out more digital shapes, keeping in mind where the green digital shapes were (**Fig. 20**).

I painted over the tape with the flat earth and set the turret aside. I followed the same procedure with the chassis and gave the turret and chassis a final paint coat of Tamiya XF-78 Wooden Deck Tan. With care not to mar the paint I lifted the tape from the chassis and turret. The deck tan colour gave a good contrast to the green and earth colours (**Fig. 21**).

I proceeded to do the detail painting of the weather covers of the 30 mm guns and grenade launchers with Panzer Aces 314 Canvas and the weapon barrels with Vallejo 862 Black Gray. The front marker lights were picked out with Vallejo 936 Transparent Green and the rear lights with Vallejo 934 Transparent Red. I assembled the KMT-8 mine clearing system and the EMT electromagnetic countermine system and painted them with my green mix and highlighted the wear areas with a silver pencil. The KMT-8 employs two bars that cover the gap between the mine plows to set off tilt rod actuated mines. I made the mistake of gluing the rods in their folded position and realized my error when I mounted the KMT-8 on the chassis. Fortunately I was able to pry the ends off the mount and reattach the rods in the correct position. I gave the entire vehicle a filter wash using Raw Sienna acrylic craft paint. The filter blended the colours together and changed the tone of the deck tan to a golden tan shade which was the colour I was aiming for. I used Tamiya Panel Accent Fluid (brown) as a pin wash. I had never used the panel accent fluid before and was pleased on how well it flowed and looked when dry. I then applied my mix of pigments that I had used on the chassis to the side skirts, front and rear of the vehicle. I also applied Vallejo Black Carbon Pigment to the slat armour at the exhaust port (**Fig. 22**).

I removed the mask from all the periscopes and sight lenses and added the mirrors. I had painted them up earlier and installed the metallic mirror sticker which makes it like a real mirror (**Fig. 23**).

I added three crew figures to provide scale. The figures are a mix of Master Box and Dragon figures with the crewman in the grenade operator's hatch sporting a Hornet head to add some character to the figure (**Fig. 24**).

In order to display the Terminator I prepared a wood plaque by sanding and priming it with Krylon Primer White. I then divided the plaque into three horizontal spaces and masked off the bottom two-thirds and painted the top with Tamiya XF-2 Flat White followed by XF-8 Flat Blue and XF-9 Flat Red, making the Russian Flag on the plaque. I finished the plaque with two coats of Future and then mounted the vehicle on it and set the turret in place.

Conclusion

This is a great rendition of the first series of an unusual vehicle and it was a great build. The detail and fit was top notch and the instructions were easy to follow with no surprises. The three jigs were a nice addition and made parts of the

assembly a breeze. I really like the metallic stickers for the mirrors, which is far superior to painting or gluing some reflective material to the mirrors. Although I didn't follow the painting guide, any one of the suggested schemes would look great on this beast. If you are a fan of modern Russian armour or just want something unique in your collection this is the kit for you. The Russian Army is currently procuring the Terminator 3, so let's hope a model company is taking notes.

Reference:

☐ benning.army.mil

Barry Maddin retired from the CAF in 2009 after a 37-year career as a Navy Stoker, an Army Vehicle Technician, and finally as an Army EME officer. He and his wife moved to Truro NS from Ottawa in 2009 where they built their retirement home, including a hobby workshop, which is strictly off limits to the cats. Barry started building models before he could spell 'plastic' and currently builds mostly 1/35 WW II armour and military vehicles, although he does dabble in other areas. He is a member of AMPS and has been a member of IPMS Canada since 2000.

Page 29

RCAF in WW II - Red Leaf or a Green Leaf?

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A long time ago, Joe MacDonald's 2009 Spitfire article in **RT 31/3** got me to thinking about an old urban legend. This is the one concerning the WW II RCAF's best-known overseas national identification marking. Central to the theme is that the marking carried a maple leaf on a light-coloured circular disc, per the header photo.

In his article Joe wrote: *"There is still some dispute as to whether these maple leaves were red or green. They probably could have been either, and it may not be possible to know for sure."*

My take on the story...

I'd be willing to bet money, or at least a beverage, that there is no hard evidence of a green-leafed roundel ever existing on a WW II RCAF aircraft. In this writer's opinion, it was undoubtedly a RED maple leaf. In the following discussion I'll try to explain why that is most likely to be the case. Some of what you'll see here is circumstantial, but I think it builds up the case a lot more than the other side which says, *"well, it looks like green in the black and white photos..."*

As far back as I can remember in this hobby, there has been controversy over this "green maple leaf" thing. I really think the story got traction from the early Airfix "poly bag" kit of the Spitfire Mk. IX with the famous JE-J markings (**Fig. 1**). Airfix produced a green maple leaf for the decals, and I think that's where this all started to become engrained in the collective memory. However, the historical facts don't support what Airfix went with for this kit; more on this a bit later. So for now let's take a look at what was happening in the real world of the RCAF during WW II.

Exhibit 1: Birth of the RCAF ensign, July, 1940

In 1921, the newly-formed Canadian Air Force (i.e., before the RCAF was “born” on 1 April, 1924) wanted to have a maple leaf in place of the red centre on the RAF ensign that was initially adopted for their use*. This took a while to come to fruition; the RCAF version of the RAF ensign was approved by King George VI in June, 1940 (**Fig. 2**). The new ensign carried a red maple leaf roundel in place of the RAF roundel. It was similar to the post-war RCAF roundel in design and proportion.

Clearly this change was a welcome and big deal for the RCAF. The new ensign was featured in the October, 1940, issue of the English “Flight” magazine (**Fig. 3**), and it didn’t take very long before the RCAF was using the new ensign and the red-leaf roundel in its recruiting and display material. See pages **33-34** for period images of the new roundel in use by the RCAF during the Second World War. Not hard evidence, but certainly worthy of consideration.

I want to stress that this is a personal opinion, but I think that both newly-recruited and serving RCAF members of the time would have proudly embraced the new identifier of their service, and would have been culturally conditioned to think of a red maple leaf as “the” way to proudly display their Canadian affiliation. Consider that, in the spring of 1943, if Wing Commander J.E. “Johnnie” Johnson wanted to show his leadership of 127 Wing, RCAF (comprised of 403 Sqn, 416 Sqn and 443 Sqn), how insulting would it have been to have changed the maple leaf identifier badge from red to green on his personal Spitfire Mk. IX?

Exhibit 2: SPORTS!

The new roundel wasn’t limited to flags and signs. There is an October, 1941 photo series of the **Ottawa RCAF Flyers** hockey team, all sporting the red, white and blue roundel. Hockey, folks, this was hockey. (non-Canadian readers may not realize the significance of this. You are to be forgiven.)

The **Toronto RCAF Hurricanes** was a football team comprised of RCAF members training in Canada, and they went on to win the 1942 Grey Cup, beating the **Winnipeg RCAF Bombers**. Both teams sported the red-leafed roundel on their jerseys.

Exhibit 3: an unofficial RCAF identifier marking

In 1942 some RCAF Spitfires started carrying a maple leaf on a white disk. The RCAF ensign had been around for two years by this point. This had to have been an influence for the marking - and I think it was a simplified version of the ensign’s red-leaf roundel. This marking doesn’t seem to have entered widespread use. I’ve only seen it being used on 401 and 402 Sqn aircraft, plus Johnnie Johnson’s famous Spitfire Mk. IX, JE-J.

For some reason you don’t see this particular marking a lot on Spitfires, or at all on other RCAF-operated aircraft, as far as I have been able to determine.

Back in the mid-1990’s, while doing research on an RCAF Mustang I for **RT**’s D-Day issue and decal sheet, I interviewed a wonderful old gentleman who was a 414 Sqn Mustang Mk. I pilot; F/Lt George Burroughs, DFC. He flew 178 missions in AM251/O’, three times on D-Day alone. It’s an aircraft you may have seen in “the” classic RCAF Mustang Mk. I photo below.

George related to me that his Spitfire pilot buddy, Bob Morrow, designed the classic version that you see on some RCAF Spitfires; a maple leaf on a plain white disk. Bob Morrow is quoted in print elsewhere as saying:

“On May 16, 1942, we moved to Kenley, Surrey, and set about serious business. On May 31, [1942], we moved to Redhill [where] I introduced the logo of a red Maple Leaf in a white nine-inch circle. ... RCAF headquarters liked the idea.”

This marking does not seem to have lasted long beyond the summer of 1943.

Exhibit 4: the RCAF “distinguishing emblem”

In February, 1943, RCAF HQ approved the production and application of an 8” decal (it doesn’t seem to have been given an official nomenclature more than calling it a “distinguishing emblem”), consisting of a red maple leaf on an 7” azure blue disk, surrounded by a 1/2” dark blue ring. You can find this marking on RCAF bombers, Beaufighters, Bostons, Mosquitos, Mustangs, Spitfires, and probably other RCAF types based in the UK. It was to be worn by all operational aircraft deployed overseas.

RCAF HQ later decided that aircraft actively involved on operations in Canada should also wear this marking. However, photo evidence of this is fairly rare for Home War Establishment types like B-24 Liberators, PV-1 Venturas, Bolingbrokes, Hurricanes or P-40 Kittyhawks.

These decals are seen in use overseas in 1943 and 1944 but then the usage drops off to where it's rarely seen at the end of the war. It may be reasonable to surmise that this seemed like a good idea for the first contract and then, when the time came to re-order them, that RCAF HQ interest had waned at spending more money on the decals.

What Does This All Prove?

It's admittedly circumstantial, but I believe it's compelling evidence. It shows that, from as early as 1939 and into the spring of 1940, the RCAF was actively moving forward and connecting their identity to a red maple leaf.

Seeing the new roundel being used on posters and other marketing devices, plus the "red leaf roundel" ensign flying at RCAF units had to have had an impact on those who were trying to proclaim to the world who they were.

Conversely, I've never come across any evidence to support that any other colour but red was used for an RCAF "leaf" identifier. It doesn't make much sense, especially considering what was going on in the growth of the RCAF's identity early in the war and back even further in the organization's early life. So, if somebody out there has something solid to show that a green leaf was in use as an RCAF identifier, then I'd love to see it.

As I touched on earlier, where this whole RCAF green-leaf thing might have gotten its start is when Airfix made the mistake in attributing the same characteristics to an RCAF aircraft as can be seen here:

- en.wikipedia.org/wiki/No._5_Squadron_RAF
- raf.mod.uk/organisation/5squadron.cfm

During the First World War, the RAF's No. 5 (AC) Sqn worked closely with the Canadian Corps. To recognize that connection, and for whatever reasons suited them, they later adopted a green maple leaf as their unit badge, which was approved in June, 1937. So why did 5 Sqn choose green? Why not? The British knew what colour leaves were, and we certainly didn't have any reason or place to challenge that assertion. After all, it was their airplanes and their badges. Years before that the RCAF had already set their sights on a red leaf and carried on with their own plan, and that has evolved since then into today's CAF/RCAF markings.

Conclusion

Hopefully I've given you some food for thought on this old topic. Red leaf roundels were everywhere that the wartime RCAF was located. I've shown you some period material to support my conclusions and you can certainly weigh that and make your own decisions. And you're welcome to produce evidence that supports another side of the argument. If you now have some new ideas and perhaps some ammunition to eventually end this old debate, then that's about as much as I can hope for in presenting this information and evidence to you. Your feedback and comments are welcome at fochinell@hotmail.com.

About the author

Steve Sauvé hails from Ottawa, Ontario. Retired from the Canadian Armed Forces since 2007, he still works as a civilian in the Department of National Defence. Claiming to be in the hobby for over 50 years, he has been a member of IPMS Canada since 1968. His interests are Canadian military aircraft, Luftwaffe and NATO aircraft, plus a bit of dabbling in Canadian Army vehicles. He's been a member of IPMS Ottawa, IPMS Winnipeg and IPMS Cold Lake.

Alternate ideas about F/O P. “Gus” Ardeline’s

Spitfire Mk. VIII, 152 Sqn, RAF, SEAC, 1944-45

Steve Sauvé

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During the time I was preparing the article seen on page **29**, on RCAF personnel using a red leaf vs. a green leaf as a national identifier, I got roped into a Spitfire challenge build with a few of the lads. Yes, beer and other mind-control techniques were used to talk me into it. I decided that I was going to do up a straightforward build of an old Hasegawa 1:48 Spitfire Mk. VIII, plus some aftermarket resin parts. In June 2019 I completed a model of the aircraft that was flown by RCAF Flying Officer (F/O) Paul “Gus” Ardeline, DFC, while he served with RAF 152 Sqn in India and Burma from 20 January 1944 to 25 April 1945. Gus Ardeline’s uniquely-marked aircraft, the only photo of which is seen on this page, is thought to be serial number JF835 and coded UM-T.

The reference photo at right clearly shows that a maple leaf got applied to the South East Asia Command (SEAC) blue/light blue fuselage roundel. The reason for this being done in this way is not known, so the underlying motivation for who did it, how it was done, why it was done, and even exactly when this happened is probably lost to history.

I decided to dig into this to confirm various details. One thing that started to gnaw at me was the colour of the leaf on the roundel and how it got there in the first place.

BarracudaCals BC48008 Spitfire Mk. VIII

For my model I used Roy Sutherland’s gorgeous BarracudaCals decals for Gus Ardeline’s aircraft. They are beautifully printed and go onto the model with no problems at all. See this and other fine products at barracudacals.com

The ever-generous Roy gives you options on several aspects of this Spitfire sheet, but the one he did not give is that of providing an alternative-theory red maple leaf for the fuselage roundel. This is a small shame in this modeller’s opinion, as the sheet only gives you a green leaf option to produce this scheme.

I’ll try to explain the reasoning for my colour scheme choices in the following notes about: panthers, white ID bands, leaf(s), red leaf, and a couple of other topics.

How Many Panthers?

I think this is a fairly straightforward deduction. You can find plenty of photos of 152 Sqn Spitfire VIII’s with their black panther marking, but it is only seen on the left side of the aircraft. No photo I’ve come across to date shows an aircraft with this marking on the right side. On the right side I’m only seeing the standard code letter presentation - e.g., **UM x**, so I made the decision to go with that for my model. Roy gives you a panther for the right side of the model, but he acknowledges in the instructions that it is speculative, and leaves it to the builder to go with it or not. But it would look cool to have it on both sides of the model.

White ID Bands?

In the reference photo there is no clear evidence of the SEAC white identification bands being applied. However there is just the slightest hint of the aircraft carrying a white propeller spinner; BarracudaCals instructions show this feature on the scheme, and I agree with it. I think that a darker-coloured spinner would have been a bit more visible in the photo.

From that, and comparing it to other photos of 152 Sqn and other SEAC Spitfires, it appears to me that the white spinner was only seen along with the white ID bands on the wings, tailplanes and vertical fin. These were introduced on SEAC Spitfires February, 1945. As far as I've been able to determine, JF835 was still with 152 Sqn at this time, so I decided to go with that feature for my model. Besides that, they do look cool on what can be a fairly low-key colour scheme.

Will That Be One Leaf or Two?

BarracudaCals gives you a panther and green leaf roundel option for the right side of the aircraft. However, in keeping with the previous thoughts about the panther, I treated the leaf application as if it were just a piece of "nose art." Since the 152 Sqn panther was only going on the left side of the model, I went with one leaf on the left side of the model.

Why a Red Leaf?

As discussed in my other article in this issue, I have not seen evidence to support that any other colour but red would have been used for an RCAF national marking. It just doesn't make sense, at least from an RCAF historical and cultural perspective. I'll talk about this point a bit more later in this article.

"Gus" Ardeline's Story

Gus Ardeline's flying training started in Canada in September, 1941. Based on the new RCAF ensign and roundel showing up in July 1940, and presumably getting into growing RCAF use across the country, I think it's a fairly safe bet that by the fall of 1941 more and more Canadian airmen and airwomen were conditioned to think of a red maple leaf and a red-leafed roundel as being "the" way to proudly identify their nationality and their service.

Although Gus Ardeline is connected with this marking, he did fly other Spitfires, as did other pilots in 152 Sqn. Even my limited research showed that Warrant Office (W/O) Eric Clegg and W/O John Vickers also flew JF835 and an aircraft coded UM-T, which was not identified by serial number.

How Did a Leaf Get onto this Spitfire?

Of course the real mystery of this photo is the Canadian leaf being applied directly to the SEAC roundel. This practice alone is unusual enough; that is, to change (or deface, if you will) a national marking like that, but the real question for me has been the colour of the leaf. The popular thinking is that it wouldn't have been red, simply because the RAF ordered the red removed from markings on aircraft that were engaged in operations against the Japanese. Easy answer.

The accepted doctrine is that the RAF ordered the red portions of their national markings removed for operations against the Japanese. This happened fairly early in the war; with some changes, this carried on until the end of hostilities. And that made a lot of sense. I get it, and I understand it. After all it was orders from RAF HQ. But what would have motivated Gus or his confederates to drop any leaf directly on the SEAC roundel?

I have noted that other SEAC Spitfires carried at least some red artwork, so we know it wasn't a completely taboo colour to put on an aircraft.

Food for thought *In this particular case, if the artistic perpetrator had just wanted to put a maple leaf on the aircraft, why did he put it directly on the roundel? Why not just go with something simple, like a piece of personal nose art located away from the national markings and avoid the potential scorn and ire of the higher-ups who might not appreciate*

Steve's theory - I think it's a bit of a stretch to consider this as a possibility, but the one image that the leaf on the light blue disk brings to my mind is the distinguishing emblem marking that was introduced to RCAF operational squadron aircraft in the spring of 1943. As described in my other article, this was a red leaf on an azure blue disk surrounded by a thin blue ring. However, there is nothing in Gus' service history to indicate that he would have been at a location to see this decal applied to RCAF aircraft in England, or even in Canada.

Still, how big a leap would it be to think that Gus Ardeline, or even somebody else along the road to India had seen or heard of this RCAF marking and then decided that it would be a good idea for an RCAF member flying in India? Gus wasn't the only Canadian flying with 152 Sqn, but I haven't dug into their backgrounds to see who might have been in England in 1943-44 when these decals were being applied to RCAF aircraft involved in operational flying. My gut is telling me that somebody had seen or knew of the RCAF distinguishing emblem and decided it would be something interesting to put on a Spitfire. I don't think that the modern context of the word "cool" existed quite as it did in 1945, but maybe that's how somebody back then thought it would look...

Parting Shot...

Consider that this leaf was less than 6" tall on the fuselage roundel. And that it was located in the middle of a large black panther marking that completely surrounded the roundel. If this one bit of red paint is what got you shot at by your own side, then you already had a lot more to worry about than a some light blue paint would have fixed for you.

Conclusion

At the end of the day it's up to you to decide how to build and paint your model. The last thing I'm trying to say is that it's an absolute certainty that the maple leaf on Gus Ardeline's Spitfire was red. I think it was red, primarily because based on what I'm seeing and reading, and partly that I just can't conceive of it being green, and so I decided to go with that for my model of Gus Ardeline's Spitfire. I did enough digging around on this topic that I thought it was worth sharing with my fellow IPMS Canada members. What I hope I've done is give you some ideas to consider for this particular scheme.

For more on 152 Squadron RAF:

- ❑ W/O Eric Clegg's Tour of Duty with 152 Hyderabad Squadron - apilotsview.co.uk/index.html
- ❑ Home of the 152 Hyderabad Squadron - 152hyderabad.co.uk

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