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Cover Comment: *Frank Cuden did a lot of old-school research to dig out the details on this very uniquely appointed civilian P-51D that was owned and flown in Canada in the 70's and 80's. See page 15 for the build article and the reference photos.*

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Editorial

Steve Sauvé, C#0323 RT@ipmscanada.com

About those decals...

Our decal sheets are ordered a few months ahead of the RT with which they'll be sent out. We don't want to over-order, because they do cost a fair bit of money to produce and we don't want to be in the surplus decal selling business. This time it came back to bite us on the butt.

After the order went in a bunch of new members decided it was time to join IPMS Canada (*which is normally a very good problem to have*) and it became painfully apparent that we weren't going to have enough sheets to meet the membership's need. I guess this is one of the reasons we want members to renew as soon as possible after receiving the renewal notice, and in this case, the phrase "while supplies last" is a painful reminder to those new members who didn't get in under the wire to receive the 2020 and 2021 decals sheets.

Answering the call...

Our hard working social media guy, Jim Bates of Seattle WA, floated a thought recently about having a back-up... 'admin', I think is what the kids call them, to be able to step in and help out with our Facebook presence. I jumped back and hid in a dark corner of the National Executive bunker, lest someone think that my editorial nervous twitches were taken as an indication of interest in adding to my portfolio.

Joking aside, this moment reminded me of the ongoing difficulties we have finding IPMS Canada members who even want to volunteer to help out at the national level, let alone let their names stand for an election if it ever comes to that. As

much as IPMS Canada is a national organization, it is, more importantly, an organization made up of individual members. On the National Executive we're all pretty much in 'one-deep' positions. If somebody gets hit by a bus, there's no 2 I/C to take over the job. My own military background stressed that you need to be training the person below you to take over the job... just in case. I'd love to have people helping me with editorially preparing RT articles and getting an idea of how it's done. Somebody's going to be taking over this job someday, one way or the other. The same goes for other jobs on the Executive. We'd be happy to have more folks coming forward to get involved and work with us. With tele-presence now being a regular part of the National Executive meetings there's very little to stop enthusiastic members from stepping forward. Drop us a line if you're interested in finding out more.

RT, available in soft-style (well, some of them...)

Thanks to some hard-working members, historic old issues of RT are now available on a USB flash card that can be ordered on the national web site. These go from the two-sheet RT No.1 in 1964, right up to Vol.37 in 2015. I'd like to take a bit of space to send a shout-out of thanks to Fred Hutcheson, Ed Storey, David Knights, Doug Booth (RIP) along with Exec members Kim Elliott, Daryl Dean and Bob Migliardi for the work they did on this project.

The RT archives appear to be a popular seller, and that's a good thing, but it did leave me with a sense of nostalgia. Seeing old copies of RT given new life and an audience as a digital work is a fun journey to see how far we've come since 1964. One of the running jokes at the National Executive meetings concerns a stash of old hard-copy back issues of RT that I had some vague hopes of making them available to the membership. These are now reduced to fireplace fodder or blue bin recycling; I'll have to get rid of them at some point soon, but it'll still bring a small tear to my eye to do so.

T-33 Silver Star Mk.3

408 Goose' Sqn, RCAF

These decals provide you with the basic unit and national markings for a elaborately-marked T-33 Silver Star Mk.3, as flown by 408 'Goose' Sqn, RCAF*, in the mid-1960's. While the markings we selected are for Mk.3AT 21555, with a few changes to the serials and/or switching the tail marking to a Red Ensign or the new Canadian flag with the painted silver border, you could model any of several different known T-Birds that 408 Sqn flew in these markings from Apr '64 – Jan '68:

- ❑ T-33 Mk.3PT (Pilot Trainer): **21566**
- ❑ T-33 Mk.3AT (Armament Trainer): **21118 / 21555 / 21580 / 21582**
- ❑ T-33 Mk.3PR (Photo Reconnaissance): **21556 / 21557 / 21565 / 21633**

These aircraft were in bare natural metal finish. At this point the 'search' or 'anti-collision' markings were applied in fluorescent red-orange. This colour was used for about a four-year period, from Jan 1961 to Feb. 1965. By 1964 it had become evident to the RCAF that the benefits of using this colour were greatly outweighed by the cost in terms of material and personnel resources needed to use and maintain this type of paint. Ten separate steps and procedures were needed to apply it, requiring excessive person-hours compared to standard paints. The decision was taken to discontinue the use of Day-Glo paint and to revert back to the standard 1-GP-12b colour Red 9-2. This was promulgated on RCAF marking drawings on 26 Feb 1965, which coincided with the order to apply the new Canadian flag which came into being on 15 Feb 1965.

Hopefully you find these decals inspirational to do up a very colourful RCAF T-Bird. If you don't want to do the Mk.3AT 21555, you can change the serials to another Mk.3AT or Mk.3PR jet. The truly ambitious modeller may wish to craft up a camera nose for Mk.3PR. We've included a few photos to help you plan your colour scheme; amongst them on the following pages you'll find a few shots of these RCAF-unique PR T-Birds. The true keener may try and craft up a replacement PR nose section in 3D. If you do, and you're doing it up for the new GWH T-33, do consider getting in touch with the [RT](#) editor...

And, again, we really are sorry about missing the two wing roundels on the decal sheet...

Spitfire FR.XIVe

411 Sqn, RCAF

One of the decal sets provided with this issue of **RT** covers a Spitfire FR Mk. XIVe, serial number NH899, of No. 411 "City of York" Sqn, RCAF.

Reference photos for this scheme were kindly provided by John Melson of Port Alberni, BC. The precise date of the photos is not known, but it is somewhere in the two-month period between late-September to the end of November 1945.

This was an interesting research exercise to sort out historical data, known elements of RAF Spitfire XIVs, and what could be gleaned from the reference photos. We hope the following notes will help you to better understand the markings on this Spitfire:

- ❑ NH899 was passed to 411 Sqn on 27 Sep 45 (from 414 Sqn) and was lost in a fatal crash in the Wadden Sea near Kongsmark, Denmark, on 1 Dec 45. The cause of the crash was not determined. RCAF Flight Lieutenant Kenneth S. Sleep died in the accident.
- ❑ It is painted in the standard late-war Day Fighter Scheme of Dark Green and Ocean Grey, with Medium Sea Grey undersides. There is no Sky band on the rear fuselage and it appears to carry the 4" wide yellow strips that wrapped equally around the leading edge of the outer portion of the wings
- ❑ 411's Spitfires were a mix of F and FR variants that came from several units, including 414 Sqn
- ❑ Most of the aircraft at this point in their lives were not in pristine 'showroom' condition. It's not hard to find lots of wear and weathering is in evidence.
- ❑ The propeller blades tend to display bare metal chipping along the leading edge protective sheath (which could be brass or steel). The wooden blades themselves are finished in a protective black plastic coating and they do not show paint chipping like a metal blade would.

NH899 Info Resources:

airhistory.org.uk/spitfire/p081.html

avlg.dk/GI/Romo/Romo_kronologi/1945.htm

Bedford QLD Lorry, 126 Wing, RCAF

These previously unpublished photos were generously shared by Ian Moore of IPMS Ottawa. They came into Ian's hands via his third-cousin, Paul E. Moore of Dartmouth, NS. The photos had been part of his Uncle Herbie's estate.

The decals are for the vehicle with the camouflage-pattern tarp. We are pretty sure that the three photos show the same vehicle from different angles, based on how the tarp's dark patterns appear to be similarly shaped. There is no way to confirm it today, so you're welcome to proceed as you see fit.

Unfortunately, we're not even sure of the date of these photos, but they are late war or perhaps even postwar. The overall RAF vehicle colour at this time was specified as SCC No. 15 Olive Drab, which has a current equivalent in BSC 381c: 298. There are several online references to guide you to good model paint matches for this. The white trim on the front fenders and brush bar is an interesting feature and may indicate a post war photo date. The canvas tarpaulin (or 'tilt' in British parlance) is probably in its natural colour, broken up with patches of either SCC No. 1a Very Dark Brown or SCC No. 14 Black.

Colour references:

mafva.org/british-vehicle-camouflage-1939-45/?v=79cba1185463

matadormodels.co.uk/tank_museum/xcamo_ww2uk.htm

A Personalized Mustang

P-51D

CF-FUZ

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Background

As modellers we're probably familiar with the likes of P-51D's named "*City of Winnipeg Sqdn*", and the "*Cripes A Mighty*" Mustangs of the Second World War. However, there is one civilian Mustang that stands out from the crowd for me. That is Canadian Gary McCann's all-black '**CF-FUZ**', with its simple and yet elegant white fuselage cheat-line edged with gold pin-striping along with white tail and wingtip trim.

Aircraft History

By way of providing some background on this aircraft, **CF-FUZ** started out life as a P-51D-20NA, USAAF serial number 44-63889. Very little is known of its early military service and postwar life, although it is known that in 1949 it was in the USAF Strategic Air Command, serving in the 96th Fighter Squadron, 82nd Fighter Group. One website shows that it was involved in some sort of accident on March 8, 1949, near Manchester, NH. After that the record picks up again when the aircraft entered the civilian market in 1963. Gary McCann acquired the aircraft in November 1973 until it was sold to a new owner in September 2002. A visit to this excellent website - mustangsmustangs.com/p-51/survivors/serial/44-63889 - will provide you with more information and photos of this aircraft.

Motivation

Let me digress a bit back to the pre-Internet mid-1970's when, after a few years of snail-mail correspondence with a fellow modeller from Hamilton, Ontario, we finally met in person when he drove to my home in Minnesota for a visit. During the course of the visit he presented me with a framed 8" x 10" colour photo of **CF-FUZ** in flight that still hangs on my wall to this day. Fast forward to 2019 when I spied the DrawDecals (drawdecals.com) sheet for the aircraft and then indicated to Supreme Editor Steve that I had an interest in building the 1:72 scale Tamiya P-51D Mustang for an **RT** article. Getting the green light, said Supreme Editor was very helpful by sending me various photos of the plane during the course of Mr. McCann's ownership of the aircraft.

Project components...

I obtained the DrawDecals sheet #72S-P51-94 and purchased a "somewhat-started" Tamiya 1:72 scale F-51D, kit #54, from a friend of mine. Fortunately, there were extra parts from another Tamiya Mustang kit in the box.

With help from Editor Steve and his contacts, I was very pleased to be able to talk directly with Mr. McCann by telephone and he answered some questions for me. Further, I was able to get in touch with Shawn Kinsey of Tab-Air, the U.S. aircraft restoration facility that did the cockpit work, including adding the striking red material to the front and rear of the two-seat Mustang. The facility forwarded photos to me of the finished cockpit with the interior done up in some sort of red leather or vinyl and they produced a first-class job. The challenge was going to be to duplicate all of that in 1:72 scale.

Construction begins - the cockpit

Fig. 1 begins the project with the transition from a single-place aircraft to a two-seat Mustang. A few locating tabs had to be removed to accommodate the upholstery pleating that I would add later.

I sawed off the radio gear which left a square hole and I added a piece of .010" plastic sheeting to act as flooring beneath the second seat. Having the extra kit parts allowed me to show the transition seen in the photo. The radiator vent fairing was separated from the cockpit tub and glued in place along with the radiator itself.

In **Fig. 2**, I scraped the other fuselage half with my X-Acto #11 knife blade to remove the remaining sidewall detail. Fortunately I was able to find a pleated second seat in my parts box so that eliminated having to add pleating later on.

To me, a Mustang looks best with its flaps down. In **Fig. 3**, I did just that by cutting out the flaps on the Tamiya wing. Doing that opened up the wing trailing edges and those needed to be thinned for scale purposes. I used a flat file to reduce the thickness and, in the photo, the port wing is done with a little more work to be completed on the starboard wing trailing edges.

Using photos obtained from the restoration facility, I began "pleating" the cockpit in **Fig. 4**. I used Evergreen #244 half-round plastic and glued individual lengths in place vertically, back to the rear cockpit walls. It took lots of measuring and trimming to make sure they would flush up to the floor board. Reference photos showed a small console adjacent to the front seat, hence the addition of the white plastic part in the photo. It contained a few glass-faced instruments. Side braces were added to the pilot's seat along with seat and back cushions – the photos showed all I needed to see for this build. I also added fill-in sections to the rear seat and they would later be faired in with the side wall pleating.

I test-fit the re-worked cockpit tub inside the fuselage halves in **Fig. 5** and used Squadron Green Putty to smooth out the sills.

Seat belts and shoulder straps were next on the list, **Fig. 6**. Utilizing an old REHEAT set that contained various buckles, I later added them to the belts. Drafting tape was folded onto itself which produced a nice scale thickness for the belts. The tape was cut in longer strips than I would need for both seats and then trimmed to length after I glued one end in place. The shoulder straps were added first, using Gator Grip White glue to hold them in place. I then added the lap belts, followed by the "hardware." The photo shows the process.

Mike Grant individual instrument decals were added to the kit instrument panel, **Fig. 7**. I first painted the panel using Floquil Grimy Black and the black and white instrument decals were punched out and applied. A coat of Tamiya Clear Acrylic later produced the instrument "lenses."

I used Testors Red enamel to airbrush all of the relevant cockpit parts and sidewalls and then began the arduous task of detail-painting the rest of the interior, **Fig. 8**. Testors Chevy Engine Red covered the pilot's seat and back cushions. During one of our conversations Mr. McCann indicated that the flooring was black, so I gave the flooring a coat of Floquil Grimy Black. Note that the red trim went only up to and even with the pilot's seat back, with the remaining forward cockpit, and the pilot's and rear seat belts, being black.

A dry-brushing of Testors enamel Chrome Silver popped out the belt hardware. I added a small yellow canopy crank to the right fuselage, just behind the cockpit coaming. Various AirScale placard decal sheets provided the instructional data panels on the consoles, instrument panel and cockpit sidewalls.

Using the same Evergreen #244 half-round plastic, I added a strip of pleating to the inside of the canopy frame, **Fig. 9**. Using a tapered file, I first notched the half-round to resemble the pleating as seen in the photo.

During my conversations with Shawn Kinsey of Tab-Air, I found out that the machine-gun shell ejection chutes in the wing bottoms were faired over with individual sheet metal plates. I duplicated that with Evergreen .005" sheet styrene, **Fig. 10**. The "blisters" behind the wing guns were removed during the restoration work and "machine-gun" simulated barrel stubs were added to the wings. I did the same with the model's wing as evidenced also in **Fig. 11**. Using a small twist drill, I deepened the rivet holes on the wing-to-fuselage fillet.

Painting time

After spraying the model with Alclad II's Gray Primer, the airframe, prop, and spinner were ready for a finish coat of paint, **Fig. 12**. Having an additional canopy, windshield, and frame, I was able to use the extra parts as a cockpit mask which saved a lot of masking time. Thinned Elmer's White School Glue filled in any gaps at the base of the canopy and frame, and along the windshield joint. Thankfully, I filled all the gaps because no under-spray tainted the red cockpit. Model Color #70862 Black-Grey covered the wheels after I had sprayed the rims and tail wheel hub with Testors White enamel. The completed airframe, flaps, canopy frame and radiator vent door were sprayed with Testors Black enamel, **Fig. 13**. After allowing sufficient drying time, I masked and sprayed the wheel wells with Testors White enamel thinned with lacquer thinner, and as is always the case, the paint went down well, easily covering the previously-sprayed black overcoat, **Fig. 14**. I used Alclad II's Duralumin for the forward travel areas on the wing flaps.

Details

To add a little interest to the model, I made and installed exhaust pipe covers and connecting cords on the left exhaust bank while leaving the right side pipes opened. Both are shown in the photo, and a coat of Floquil Antique Bronze was brushed on the pipes themselves.

In **Fig. 15**, I first sprayed a coat of Floquil Reefer White on the inside of the canopy frame and followed that with a coat of Testors Red enamel. Floquil's Grimy Black covered the cockpit coaming and Alclad II's Polished Aluminum covered the front and a portion of the rear of the prop blades, a short distance out from the spinner. I masked the rear sides of the blades and sprayed the remaining parts of the blades with Floquil Engine Black. All of that was courtesy of the various detail photos I had at my disposal.

Markings

DrawDecals covers the aircraft at three different stages of its time with Mr. McCann and I elected to do the time period from the mid-70's with its early scheme. During the ensuing years, the "Dallas" canopy was tinted darker and the propeller blades were sprayed all-black with white-striped tips, along with Hamilton Standard logos, and propeller data stenciling on the blade fronts. At that point, I sectioned, and then applied the forward short portions of the cheat line decal which met up under the nose of the aircraft. It was easier to work with the short sections. After they were dry, I masked the wingtips and horizontal tails before applying Floquil Reefer White to them. White wingtip decals were provided but I was concerned about a seam appearing on the wingtips where the tops and bottoms would meet, hence the masking and spraying. The end results are seen in **Fig. 16**, along with the rest of the decals, the wheels glued in place and the rear propeller blades visible. I hand-brushed a medium grey on the forward cockpit sills and Model Color #70863 Gunmetal Grey covered the "faked-up" machine gun stubs.

Final Steps

Lots to see in **Fig. 17** with gas cap decals having been added along with grey wing walk decals. I went over all of the panel lines and rivet indentations with a soft artist's pencil which accented them just enough to be seen. A small white base sits on the dorsal fuselage spine to accept an antenna that I would make and add at the end of the build. Also note the capped exhaust pipe bank that's in place, along with the dropped flaps.

I decided to glue the canopy frame in place before installing the vacuformed canopy. It just seemed easier to do it that way. With only one set of pipes covered, I decided to show the inner gear doors in the lowering positions as they bled off hydraulic pressure and slowly dropped down unevenly after engine shutdown, **Fig. 19**. The edges of the main wheel doors would need a black touch-up and I would get to that later.

Although they might not have been there on the airplane, I decided to keep the recognition lights on the bottom of the right wing. They are visible in **Fig. 20**, along with the faired-over shell ejection chute covers.

I used grey pastel dust to accentuate the structure in the wheel wells, **Fig. 21**. My final work was to spray Testors Clear Semi Gloss on the red cockpit components because the Testors enamel gloss red was a bit too shiny for scale purposes.

The remaining photos are of the finished model as I completed the build by adding the propeller and a barely-visible antenna wire leading from the fin to the left side of the fuselage, just below the non-used silver gas filler cap, **Fig. 22/22a**.

The 'V' antenna on the fuselage dorsal spine is visible in **Fig. 22/22b**, while **Fig. 23** shows the two angled lower wing blade antennas I made and added per reference photos.

Conclusion and Acknowledgements

It was an enjoyable build, while I had a chance to practice my scratch-building skills in the cockpit area.

Many thanks go to **CF-FUZ**'s owner, Gary McCann, Shawn Kinsey at Tab Air, the restoration facility, and to **RT**'s Supreme Editor for their resources and help during the project. Their photos and good counsel sure made building **CF-FUZ** easier as well as providing me with a lot of modelling fun and satisfaction.

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LET THERE BE LIGHT

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I have been modelling for many years, and over those years I like to think that I have built some great models... and I know that I've built some not-so-great models. To aid in building better models, two key elements can help to achieve that goal;

- a good work area
- excellent lighting

A work area is a highly-desirable "gotta have it" in our hobby. If you work on the dining room table all the time, you will have to set up and put away everything each time people want to eat, therefore the chances of breaking parts or losing them are greatly multiplied. Plus, it takes time to get organized each time and we all know that we don't have enough free time for our hobby; I know I don't! With a dedicated work area, all your accessories are nearby, and you don't need to move anything, so the chances of losing or breaking parts are minimized to the minimum.

Lighting is the other crucial element we all have. There is never enough to see all the tiny intricate details or to find the finest of scratches so that when you're ready to paint, it will go on smoother and hopefully flawless.

I used to have two articulated lamps on my desk and, even though they were mounted, they did take up a lot of room. I bumped into them, banged my head on them or had to swing them away so that I could look for paints or in parts drawers.

Over the years, lighting has evolved dramatically and it has helped us to have better, brighter workstations so that we can see more details. The years of the Incandescent Bulbs burning the tops of our heads are over. I not-so-fondly remember having a desk lamp with a 100-watt bulb burning, many times, the top of my head while I was building, and using that same light to help smooth out the enamel paint on the freshly-painted model. Ah, those were the days!

Then Fluorescent Light started illuminating desks, drafting tables, offices and workplaces. They were an advantage because of their brighter light, longer life and being not as hot as the incandescent bulbs were. They had a big articulated arm that could be placed or directed where you needed the light. They were very expensive but at least they didn't burn the top of your noggin. Fluorescent lights are still used today, with different colour temperatures, from warm white to cool

white, and even daylight. They helped modelling a lot by not changing the colours as much as incandescent bulbs did. But the fluorescent bulbs are slowly fading out and making way for newer technology.

For a short while, we had the Compact Fluorescent Light (CFL), commonly known as spirals. It was a spiralled fluorescent lamp designed to replace the incandescent light bulb; some types fit into light fixtures designed for incandescent bulbs. A CFL had a higher purchase price than an incandescent lamp but could save over five times its purchase price in electricity costs over the lamp's lifetime. Like all fluorescent lamps, CFLs contain toxic mercury, which complicates their disposal. In many countries, governments have banned the disposal of CFLs together with regular garbage. White LED lamps now compete with CFLs for high-efficiency lighting, and General Electric has stopped the production of domestic CFL lamps in favour of LEDs.

Today we have the LED (Light Emitting Diodes). Appearing as practical electronic components in 1962, the earliest LEDs emitted low-intensity infrared light. Infrared LEDs are frequently used as transmitting elements such as those found in remote controls for consumer electronics. Modern LEDs are available across the visible, ultraviolet and infrared wavelengths, with very high brightness. LEDs have many advantages over Incandescent and fluorescent light sources, including lower energy consumption, longer life, much lower heat output, improved physical robustness, smaller size, and faster switching. Available in a large range of colours, styles and brightnesses, they can be complicated to determine which one is best-suited for your needs. I will try to help out as much as possible on which ones are more suitable for our modelling.

When looking at an LED package, and what's written on the box, nowhere does it say the "wattage", like we have been used of seeing over more than a hundred years that we've had light bulbs. Back then, we had 40 W, 60 W, 100 W and so on, we knew that the higher the numbers were, the brighter the bulbs were and the hotter they got too!! So let me explain the LED rating system a bit.

How Much Power do LEDs Use?

LED Bulbs use up to 90% less energy than an Incandescent or Halogen bulb of equivalent brightness. LEDs are far more efficient at converting electricity, which is measured in watts, into light, which is measured in lumens. As such, a typical 4-watt LED bulb can easily achieve a light output comparable to a 50-watt halogen, and sometimes higher due to its high lumen-to-watt ratio.

How Long do LEDs Last?

One of the biggest benefits of using LEDs is its outstanding life expectancy, due to its very efficient thermal management. LED bulbs are able to remove heat through heat sinks to help prolong the life expectancy of the bulb by slowing down lumen depreciation. A well-built LED with good thermal management should last up to 50,000 hours.

How Bright are LEDs?

The brightness of a bulb is measured in lumens (Lm); the higher the number of lumens, the brighter the bulb. Despite using very low wattages, LEDs are able to emit the same brightness as traditional light sources. We used to look for WATTS (energy), now you look for LUMENS (brightness).

WATTS (Energy)	LUMENS (Brightness)
150 W	2600 Lm
100 W	1600 Lm
75 W	1100 Lm
60 W	800 Lm
40 W	450 Lm

What Colour Temperatures of LEDs are Available?

LED light output is commonly found in one of three colours, Warm White, Cool White and Daylight. Colour temperature is conventionally expressed in degrees Kelvin, using the symbol K, a unit of measure for absolute temperature. Daylight at high noon falls in the range of 5000 - 5500°K. Colour temperatures over 5000° K are called “coolcolours” (tending to look bluish), while lower colour temperatures (2700–3000° K) are called “warmcolours” (tending to look yellowish). The best light and the brightest is between 5000° K and 6500° K. That is where the light is at its whitest, and resembles natural sunlight.

Lighting Choices for Your Workbench:

There are plenty of lamps we can use to illuminate our workbench for building our plastic models. Some people are very satisfied with a simple desk lamp, but I’m always looking for more lighting. The brighter it is, the better it becomes.

For our hobby, here are some types of lamps we can use and what are the “PRO’s” and “CON’s” for each:

1. TRADITIONAL DESK LAMP:

PRO’s:

- Timeless look
- Fairly cheap, depending of which type of bulb is used
- Small size
- Every store has them
- They can be Incandescent, Fluorescent, Compact Fluorescent and even LED

CON’s:

- They take up precious space on the work surface when you have a small surface to work on
- Being smaller and lower, they tend to illuminate only a very specific area (“spotlight”) so you need to move it closer to your work and it may interfere with your modelling

2. SWING ARM DESKTOP LAMPS:

PRO’s:

- Being bigger, the lighting is a little better than a traditional desk lamp
- It can be located closer to your model without moving the base of the lamp.
- Some lamps can take a higher wattage bulb to improve the lighting
- They can be bought with a built-in magnifying lens so that you can take a close look at your work, which may or may not be a good thing...

CON’s:

- Because of their greater size and the swing arm, the base is much bigger, taking even more room than a traditional desk lamp.
- Manipulating the swing-arm to have the light closer to your work creates the danger of it tipping over, potentially resulting in damage to your model.
- Because it can be swing closer to your work, you have a tendency to hit your head on it or smelling your hair burning because of the high heat generated by the incandescent bulb.

3. CLIP-ON DESK LAMPS:

PRO’s:

- Excellent for the desk or work spaces that are too small to accept traditional desk lamps.
- Compared to a traditional desk lamp, they attach to the edge on the side of the table with a clamp, clip or by drilling a hole in the desk to insert the peg of the lamp into it.
- They take up less room because there are no lamp bases on your workstation.

- ❑ Almost no chance of tipping over.
- ❑ Similar to the swing arm desk lamp, they can be equipped with a magnifying lens to take a closer look at your project.

CON's:

- ❑ Some of these lamps can be very expensive if you are looking for a good quality lamp.
- ❑ Even if they can be brighter, they still create shadows on your workspace, requiring you to constantly shift the light direction around.
- ❑ Clamping them can be an issue when you have very confined space, or you have an IKEA desk. Some IKEA tops are constructed of laminated cardboard. This makes it very difficult to have a strong anchor point to mount or screw the lamp bracket without breaking the surface of the desk. If you have to drill a hole to mount your lamp, the inside is cardboard, make it impossible to mount securely.

With LED's getting very popular and available at more reasonable cost, we can achieve pretty much any type of lighting we can imagine.

Three years ago, I started looking around for a light that I could bring to our IPMS Ottawa monthly build display sessions at the Canada Aviation and Space (CASM); something that didn't take too much room, was easy to transport, and was very bright.

I started searching for ideas on the web and saw a post that had an arch light installed over a workspace and it caught my attention. What if I could build something similar to this? - it would be light enough to carry, brighter than having a swing-arm lamp that blocked my view when having a conversation with a museum visitor about our hobby. So I started researching on the web for what I would need to build this type of lighting set-up.

LEDs!

SMD (surface mounted diodes)/LED strip lights come in many types and sizes.

An LED strip light (also known as an LED Tape or Ribbon light) is a flexible circuit board populated by surface mounted light-emitting diodes (SMD/LEDs) and other components that usually comes with an adhesive backing.

What are the Differences between LED Chips?

LED chips (and SMDs) are all identified by a four-digit number. These codes are less complicated than they look. It simply indicates the size of the LED chip. For example; the dimensions of SMDs on 5050 LED strip lights are 5.0 mm x 5.0 mm.

LEDs like 3528s, 5050s, 2835 and 5630s aren't really different types of chips at all, they're simply different sizes. Each has its own specification; they have different power requirements and output brightness. The best choice depends on what's right for your project. Again, three years ago, there weren't a lot of types of strip light available, so I chose the number 5630 solely because they were the brightest ones of the only two that were available.

After receiving my strip lights, I needed some sort of material to build the arch. I drove to my local hardware store and found an aluminum bar that was 1" wide x 1/8" thick x 8' long. Well, it would have worked fine if my lamp didn't need to be moved around, because it is long. So I started thinking, how could I make mine portable from my home to CASM? One thing led to another and the project ended up on the shelf like a lot of my ideas, unfortunately.

Earlier this year, a member of IPMS Ottawa started posting on Facebook the idea of building the same type of lamp and we started sharing ideas left and right and within a couple of weeks, his light was done, up and running. Mind you, his lamp is permanently installed on his workbench, therefore a tad easier to do.

He got me motivated to get mine finished, therefore I went back on my lost and found items and dug out the LED lamp project. Once more, how can I do it portable? The piece of aluminium that I had was great because you can achieve a perfect arch by bending it until you reach the preferred shape. But, the problem was that the aluminium retained its shape and would be kind of awkward to carry a 4-foot long arch around. With the aluminium out of the equation, I needed something to replace it and thought about plastic. Eh, we work with styrene all the time and I thought that this could work. Lucky for us, we have a store in Ottawa called CANUS Plastic. Drove to the store to see what they had for my requirements. After discussing with the assistant about my plan, he suggested using Lexan plastic; it's lightweight, resilient and malleable. He also suggested to install a hinge on the top portion so that I could fold it in half for easy

carrying. They also have hinges made of the same material which can be glued to the Lexan. I bought everything that I needed, went back home to start working on the arch by calculating how long I needed the lamp to be. I wanted it to be 4 feet wide and 2 feet high at the uppermost, so I needed to work my common sense a tiny bit to determine the length of Lexan required. I calculated that 2 strips of 37 inches long would create the desired arch needed.

After cutting and gluing the hinge to the Lexan (*Lexan can only be glued using Methylene Chloride, but it's extremely volatile and smelly*), I left the hinge to dry. Subsequently, I installed the strip light by cutting the strip to length and removing the adhesive backing and sticking it to the Lexan. It was as simple as that.

For the connections, I decided to weld them together because, being portable, it will move around and I wouldn't want it to get loose. When doing the connections keep an eye on making sure you connect the negative to the negative and the positive to positive.

At that moment I started thinking about how was I going to make the light stand up. Being a part-time woodworker, I went to my shop and tried options and came up with two pieces of wood with a mortise in them so that each piece of Lexan could fit in them to create the desired arch. But, the arch didn't stay like I wanted. The pieces of wood were sliding with the pressure the Lexan was exerting on them. I needed something that could prevent the two pieces of wood from moving. What if I put a piece of wood the desired width and screw the two pieces of wood into it? Eureka, it worked! I only needed to perfect it so that when I brought it from place to place, I wouldn't need a screwdriver or drill.

Next came the "Sex Bolts," which are also more-politely known as Chicago screws or barrel nuts. It consists of a male and female component that screw into each other. Simple as that. This way I could install the female part into the long piece of wood and have a thread to work with, while the male portion would be in the two pieces that lay flat on the table holding the Lexan arch. Now, I needed the two pieces of wood to stop swaying on the table. To prevent that, I had to install an additional dowel beside the female sex screw to lock everything together in one piece.

After I finished the assembly, testing it out revealed a minor problem. Having a hinge on the top portion of the arch, it flexed under the pressure, creating somewhat of a pointy arch instead. Oh well, I have a lamp in the shape of a Taj Mahal.

Make it mobile!

Now that the lamp was done, I needed a way to carry it without too many problems. Having studied in architecture, I had many drafting tubes laying around the house and decided to use one of them but to my dismay, I didn't have one long enough to fit my light into it. I looked online to buy a longer one and found out that a 48" long drafting tube can be very expensive! So time to build one using PVC plastic plumbing pipes. Fairly cheap and almost impossible to break, and I bought everything I needed. Again, I just can't build something that simple. I needed to make it differently. Why not make it look like a Bazooka?! I painted it in khaki green, installed a shoulder strap to it and made some decals to complete it.

About the author:

Benoit 'Ben' Bonnier was born in Montréal, QC, and lived there until 1980 when he moved to Hull, QC, just across the river from Ottawa, ON. He started building models at the age of 6 and became a member of IPMS Ottawa from 1983 to 1993. Life events got in the way for 20 years, but then in 2013 he returned to modelling and re-joined IPMS Ottawa.

Cdn Army Diamond T Model 975 Truck

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Project Background

This is a report on my first encounter with the Polish manufacturer IBG – here in the form of a Diamond T 968 truck in 1:72. I stumbled upon pictures on the web of this type of truck in the Canadian Army (*in my search for US trucks in British/Commonwealth service*). These trucks, with the model designation 975, are an extended version of the Model 968. For a Dane, an added spice to building a Model 975 is that these trucks were also used by the Danish Army in the post-war years. These Danish trucks were delivered in 1951-55. Trucks with open and closed cab and with or without winch were received; they were used with a GS (General Service) body, for bridging-equipment, and as mobile workshops. The last of these units were disposed of as late as in the early 1980's (from reference 3).

IBG is a Polish manufacturer which, at the time this is written, on the Hannants webshop, has 176 models for sale. IBG has a large collection of truck models from WWII, both in 1:35 and in 1:72. In addition, they offer models of tanks, guns, ships in 1:700 and a number of Polish aircraft in 1:72. IBG has a nice website where you can find a lot of information about their models, and for many of the models you can download the assembly instructions so you can see what you are getting into.

From the model kits of WWII British trucks that I've seen, these are of high casting quality and are sets with many parts (*their Bedford QLD has 90 parts, compared to the same from Airfix, which has 62 parts*). Their concept is that the base truck is used in many releases, where extra sprues are provided with the parts to be used for a specific version. This means that there is often a good restocking of one's spare parts box after you're finished an IBG build.

The Diamond T Model 975

A little information about the Diamond T 975 (from Reference 1 and Wiki): This truck was an extended special edition of the Diamond T Model 968 truck, the latter of which was produced for US and other use in two variants. One with a wheelbase (measured between the front axle and the rear axle system centre) of 152 inches and one with a wheelbase of 172 inches. Both versions were 6x6, i.e., with drive on all three axles and with double wheels on the rear axles.

The Canadian version Model 975 had a wheelbase of 201 inches and was produced in approximately 1500 copies (up to 30,000 of the other models were produced and Model 975 only for Canada). There are plenty of options for different variants of Model 975:

- GS cargo body,
- crane (you can use the Coles crane from the Airfix Recovery set),
- workshop in several sub-versions and a boat/pontoon transporter.

The Kit

The IBG model of the Model 968 is reviewed on the Finescale Models website, and images of the kit's three trees of plastic and assembly instructions can be found on the IBG or Scalemates websites (see references). It is a precise collection of 125 parts, some of which requires great care when cutting from the sprue (use of a fine saw is strongly recommended – also look out for the plastic eating monster of your workspace). I learned this the hard way, as several parts broke when I used a sprue-cutter; it is a case of brittle plastic. There is virtually no flash, but the solid sprue gates

mean that for ALL parts, a bit of time is needed on grinding and cutting for the parts to be used, especially since the fit is affected for a large number of parts. It challenges the patience a lot, especially since there are many small parts where the cleaning task is challenging for the eyes and motor skills. But once you have cleaned the parts nicely, things fit perfectly (I did not need to use any filler), and there sure are enough parts to keep you busy (as I write this during these times of COVID-19 we are all looking for building time!). There is even a small, clear plastic sheet for the windows. To give you a feeling of the parts count, note that there are 28 parts alone in the rear suspension unit (including the wheels); and the chassis frame consists of 12 parts.

The Build begins...

To convert the kit to a Model 975, only a few things are needed, but they take some time to accomplish:

□ The chassis frame between the front and rear suspension must be extended by 17.6 mm (in 1:72). The extension must be placed directly in front of the forward rear axle, as the entire front of the truck is unchanged from the Model 968. Thus, the engine, transfer case and the drive axle to the front wheels are the same as on a 968. The driveshaft for the rear is extended from the transfer case to the drive shaft found on the 968 – the extension and the original axle are connected by a hanger bearing which is found approximately midway on the frame. The frame shall also be fitted with two additional cross beams, one where this hanger is fitted. To get a solid modified frame, I used Evergreen strips for the extension and placed a plate on the top of the frame and an additional crossbar at the front of the frame. When the glue was dry I removed the latter and cut the openings into the plastic plate, so the result is an OK and extremely solid chassis frame.

□ The spare wheels must be moved from the truck body to a narrow platform between the cab and the body. Here there was a system that could hold the wheels and that could be tilted down if you had to get the wheels out. I used an I-shaped Evergreen strip, but one can make do with some flat plastic sheet.

□ A brand new GS cargo body must be built. In 1:72 it is 63 mm long, 34 mm wide and has high sides of 12.5 mm. It was produced in steel, with fairly solid vertical and horizontal reinforcements on the sides of the body (seven verticals per side). The underside crossbars cannot be seen from the side – they are hidden by an extra-deep reinforcement at the bottom of the side of the body. The frame for the tarpaulin consists of four vertical rods, and the frame is strengthened by longitudinal rods on the “roof” and by the roundings in the frame. I used plastic sheet as well as strips and rods from Evergreen. It takes some time to put it all together, and you end up having amassed 55 parts. Since most of the elements are straight, it is not really that bad, and with today’s fast-drying and super-thin glues it goes quite fast. The installation of the tarpaulin frame was somewhat easier than anticipated, as the thickness of the reinforcements made it possible to drill small holes in the sides of the body in which the frame could be mounted. Please note that there are pictures of the 975 both with and without tilt (*I recommend using white glue-soaked optical lens wipes for creating canvas tarpaulins – they are easier to work with than facial tissues as they do not deform easily and have better strength*).

Finally, you must produce and add two toolboxes that are placed in front under the body on each side. I made mine with plastic card, with the bulk of it produced from thick plastic and the access hatch made from thin plastic; hinges etc are from small lumps of odd plastic left-overs. Dimensions are judged from side shots of the original vehicle (reference 1).

□ A small detail is the headlights. British and Canadian trucks had only one headlight – here there is a headlight and possibly a position lamp. From pictures you can see that it was different whether the lamp sat on the right or to the left (the regulations said on the right). And no protective grille was used in front of the lights (they are also solid in the kit, so that’s fine).

Paint and Markings

The model is painted in Olive Drab (LifeColor), with the engine, etc. in Vallejo Metallic Black and the tires in Tire Black, also from Vallejo. I’m not a big fan of the paint work in modelling and am an old-fashioned user of brushes, which works fine for me. For trucks, wheels are always a challenge – IBG is kind enough to have well-defined rims, so painting the wheels was almost a romance.

Finally, there are decals with white five-pointed stars. Apparently Canadians did not love these markings (there are examples of them painting them upside down; just to make a point that they weren't from the USA *). A Danish version is as above, while some post-war Dutch models had a US body style like the ones seen on, e.g., GMC CCKWs.

* - some references indicate that the story about the five-pointed star on Canadian vehicles is an unfounded anecdote.

Conclusion

The set is highly recommended. You get a model (with or without conversion) that looks potent. Actually, it's a monster of a truck! And the IBG kit is of high quality. It does not, like newer Airfix kits, come together in a few hours, but you get great value for money. Many good hours of building for a little more than \$21 CAD (100 DKK).

References and Resources

- ❑ 1) About 975 type, "Canadian Diamonds", *Wheels and Tracks, Number 24*, pages 12-23, Battle of Britain Press, 18 (ISSN: 0263-7081).
- ❑ 2) Notification of the IBG set, [finescale.com/product-info/kit-reviews/2015/03/ibg-diamond-t-968](https://www.finescale.com/product-info/kit-reviews/2015/03/ibg-diamond-t-968).
- ❑ 3) About Type 975 in Danish Army service, armyvehicles.dk/diamond975.htm.
- ❑ 4) IBG's website with assembly instructions, pictures of the contents of the box and of a single model. ibgmodels.com/72019.htm ; see also [scalemates.com/kits/ibg-models-72019-diamond-t-968--581946](https://www.scalemates.com/kits/ibg-models-72019-diamond-t-968--581946)
- ❑ 5) Here's an example of a scratch-build version – time spent 200 hours! See smallscaleafv.com/ANG/Technika/76_T975GS.htm

PS: Afterwards I can see that the mud flaps are probably not quite correct. I used the kit-supplied version, but there I should have made some thinner and longer replacements, which should have been placed closer to the rear wheel. For the Danish version, however, my model is quite OK if you just add an extension to the mud flaps.

About the author:

Martin Bendsøe is from Copenhagen, and has lived there most of his life. Modelling since the age of 10, he primarily builds 1/72 WWII RAF/RCAF fighters and trucks (he is of Danish/English descent). He began writing for the IPMS Denmark magazine a few years ago and enjoys combining history, technical stuff, and the building experience into one piece. Retired in 2018 after 38 years at the Technical University of Denmark, he now concentrates on hobbies, family and activities for charitable foundations. A member of IPMS Canada for more than 15 years, he has visited Canada and its aircraft museums on a number of occasions, often combining business trips with his private interests.

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Thunderbolt Mk. II

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The P-47 Thunderbolt is one of my favourite airplanes. Over the years I have built over a half a dozen variants, from the Razorback 'D', all the way to the 'N' version.

When Tamiya came along with their P-47D Razorback version I bought one right away and have been hooked since. It is an easy build that can be built up very nicely right out of the box, or it can be detailed with multiple resin and photo-etch

sets. This particular build was done up out of the box. The only items that were not used from the kit were the main markings from the kit decal sheet.

My wife and I were travelling in the States and found a hobby shop with a nice selection of aftermarket decals. I always like to buy decals first, and then buy the kit. I found a set of decals from a company called LPS Hobby, which is based in Brazil. I had never heard of the company but the scheme on the sheet looked interesting. The airplane that I chose to do was a T-Bolt based in Egypt, and painted with an Ocean Grey/Dark Green/Medium Sea Grey camouflage paint scheme.

The Build Begins - Cockpit

The first thing, as usual with most aircraft kits, is the cockpit. I painted it Vallejo colour 71.093 Field Green, as it is a darker green than the normal US Interior Green. Republic used a darker green for painting their P-47D cockpits.

I then picked out various parts in black, dark grey, aluminum, red and yellow. **(Fig. 1 and 2)**

The instrument panel was painted black and the kit decal was used for the instrument dials. **(Fig. 3)**

The sides were glued on the main tub. **(Fig. 4, 5 and 6)** Usually if I do a kit out of the box I will use the decals of the seat belt. I didn't do it this time and just left the seat bare.

Fuselage

When the cockpit was all together it was sandwiched in between the fuselage sides. The fit was good so very little work was needed to get rid of the seams. The only place to watch out for is the underneath towards the rear where there is a small grill. Some panel lines may need to be redone depending on how aggressive you are with the sanding.

Engine

The engine is pretty good right out of the box. Some careful painting will make it look nice. Once it is in the cowling and behind the prop not much can be seen. **(Fig. 7)**

Wings

The fit of the wings to the fuselage is really nice. No works on the wing roots are necessary. Same with tail, the rudder is a separate piece that slides on and fits great. Before long I had the windscreen masked and the painting part of the build commenced.

Painting

Lately for my builds I use a black primer. The one I use is the Vallejo Mecha Black Primer 74.642. It gives me a good base to start the faded look. The first thing to be painted was the Sky band around the aft end of the fuselage. **(Fig. 8)** Once I mask that off, I then start painting the bottom by doing a marble effect by painting fine lines of a darker gray than the base colour. I leave some black showing through so when I put the base colour down it gives a dirty look. To not have a patch work look I do not care if I go over panel lines.

The bottom was painted ANA 620 Light Gray which is equivalent to today's FS 36440 Light Gull Gray. I used Vallejo 71.121 Light Gull Gray. **(Fig. 9)** this was masked off.

I then started to do the upper surface camouflage colours. For this I used Vallejo 71.092 Medium Olive first to give a base to work on to help give a faded look. I then used Vallejo 71.043 Olive Drab as the final camouflage colour. Some spots were picked out even more with a little yellow added to the Olive drab to lighten it a bit. **(Fig. 10)**

The Olive Drab was then masked off and I started to paint with a thin coat of Vallejo 71.097 Medium Gunship Gray. To give a faded look I added some of the light grey paint that was used on the bottom. **(Fig. 11)** This was painted on using a marbling effect. **(Fig. 12)** The section of wing flap that tucks up into the wing is sometimes pictured as either natural metal or in primer. For this one I did that section of the flap in yellow zinc chromate primer.. **(Fig. 13)**

Markings

For the most part the decals that were provided by LPS Hobby worked great. They laid down nicely with the minimum amount of decal solvent.. The only problem I had was with the upper wing roundels. It was mostly my fault. I tried to move it just a fraction and it tore. I was able to source some decals from another aftermarket sheet. **(Fig. 14)**

Weathering

Weathering was done with oils. I used a silver pencil to do some chipping around the wing root. (Fig. 15)

Conclusion

Overall a nice quick build, at least by my standards.

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