FMA IA 58 PUCARA

Kinetic Pucara 1/48th Scale

By Michael Novosad

I remember the Falkland's war between The United Kingdom and Argentina and the television coverage of the battles. During this coverage I saw the Pucará for the first time and was taken with the aircraft. I have a soft spot for twin engine aircraft, especially those with propellers. The lines of the aircraft as well as the various camouflage schemes caught my attention. The biggest reason I wanted to build this model was to replicate one of the more challenging paint schemes seen on the real aircraft. When Kinetic Model Kits issued a 1/48th scale kit of the Pucará I had to have one.

The FMA IA 58 Pucará (Quechua: Fortress) is an Argentine ground-attack and counter-insurgency (COIN) aircraft manufactured by the Fábrica Militar de Aviones. It is a low-wing twin-turboprop all-metal monoplane with retractable landing gear, capable of operating from unprepared strips when operationally required. The Pucará saw action during the Falklands War and the Sri Lankan Civil War.

The IA-58 has a slender fuselage, with a tandem cockpit arrangement; the crew of two is seated under the upward opening clamshell canopy on Martin-Baker Mk 6AP6A zero/zero ejection seats and provided with dual controls and good visibility. The clean aerodynamic design allows the Pucará to reach relatively high speed, higher than the American OV-10 Bronco, another COIN aircraft. On the other hand, the IA 58 has no cargo bay inside the fuselage as requested for the American aircraft.

Armour plating protects the crew and engines from ground fire. The aircraft is powered by a pair of Turbomeca Astazou engines driving sets of three-bladed Ratier-Forest 23LF propellers that are also capable of being used as air brakes.

The Pucará was designed for operations from short, rough airstrips. The retractable tricycle landing gear, with a single nosewheel and twin mainwheels retracting into the engine nacelles, is fitted with low pressure tyres to suit operations on rough ground, while the undercarriage legs are tall to give good clearance for underslung weapons loads. Three JATO rockets can be fitted under the fuselage to allow extra short takeoffs. The spring suspension system is like the one used in the Junkers Ju 88, while the tail has a T configuration to improve take-off.

Fixed armament of the Pucará is comparable with WWII era aircraft and is close to the German Bf 110. It consists of two Hispano 804 20 mm cannons mounted under the cockpit with 270 rounds each and four 7.62 mm Browning FN machine guns mounted on the sides of the fuselage with 900 rounds each. Three hardpoints are fitted for carrying external stores, single or in clusters such as bombs, rockets or external fuel tanks, with one of 1,000 kg (2,200 lb) capacity mounted under the fuselage and the remaining two, of 500 kg (1,100 lb) capacity, beneath the wings. Maximum external weapons load is 1,620 kg (3,570 lb). Onboard armaments are aimed through a simple reflector sight.

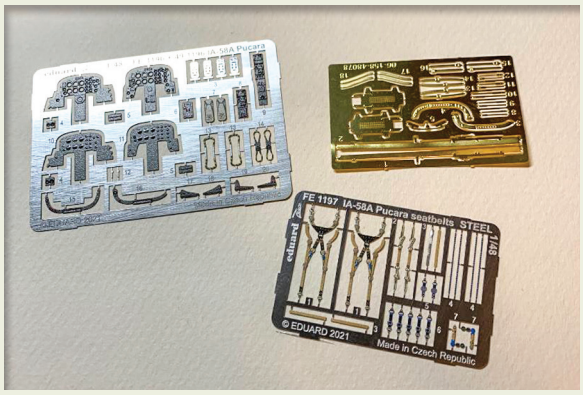
I purchased the Kinetic kit from Hannants in the summer of 2021. Once I had the kit in hand, I opened the box and fondled the parts before closing the box and putting on the shelf for storage until I was ready to build it. In the meantime, I acquired various aftermarket accessories as they became available to include in the project. In March of 2023, I reopened the box in preparation of planning the build when I discovered the clear parts were missing. I opened two of the clear plastic bags that contained the major parts (wings and fuselage) and still no clear parts. My heart sank.

> "...I reopened the box in preparation of planning the build when I discovered the clear parts were missing."

I contacted Kinetic Model Kits via email, providing them with the kit information, the missing part number and my name and address. Two days later, I received a response that they would replace the part provided I had the receipt for the purchase. That was unlikely. I went back to the Hannants web site, cut and pasted my order information for the purchase to email back to Kinetic Model kits. I included images of the box art and box contents. Next day I received a response that Kinetic would mail me a replacement sprue. Had I not provided that information, Kinetic would replace the sprue for $13. My hat is off to both Hannants and Kinetic for their help in resolving the matter.

There are four grey styrene sprues, plus one clear parts sprue and a small decal sheet. The panel lines are fine with parallel lines of rivets. Raised detail is sharp and crisp. The cockpit tub and wheel wells are nicely detailed.

The eight-page instructions include sprue layouts, paint colors with number for various model paint manufacturers (though reference pictures are still helpful), and finally plans and profiles depicting an Argentinian Air Force and Uruguayan Air Force FMA IA-58A/D Pucaras. I planned to model the Argentinian Pucará flown by Major Carlos Tomba.



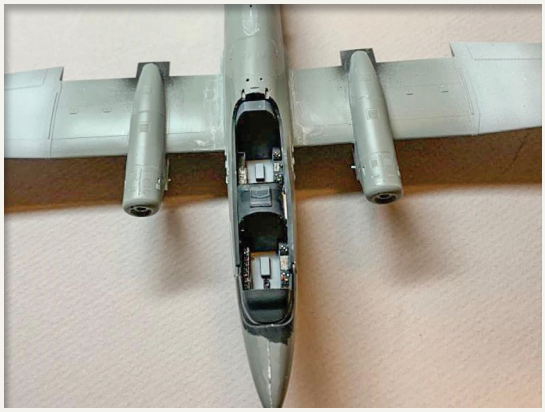
In addition to the parts in the kit, I used a variety of aftermarket pieces including the Eduard Cockpit Photetch (FE1196), Eduard Seat Belts (FE1197), Eduard Canopy Mask (EX789), Tface QuickBoost Exhausts (QB 48 986), and Quickboost Spinner and Propellers (QB 48 994).

I also added some scratch-built pieces, including wound lead cord for crew oxygen hoses and fine lead cord for landing gear break lines, as well as rear view mirrors.

The Visual Modeler's Guide has several images of various camouflage schemes for the Pucará, but I was drawn to the green and tan scheme on the cover. The last page of this publication has related products for the aircraft: the AMMO paint set A.MIG-7272 and the Kinetic 1/48th scale kit. The paint set would have been nice, however I could not justify buying the set when I planned to build one green and tan Pucará.

I have never been a stickler for 100% accuracy in paint colors so I used what I determined to be close enough based on some conversion charts for AMMO and Humbrol paints.

The two ejection seats are made from nine plastic parts plus the kit provided photoetch. Since the kit PE parts requiring painting, I used the prepainted Eduard set instead. I assembled the two seats, but left the cushions off for separate painting.



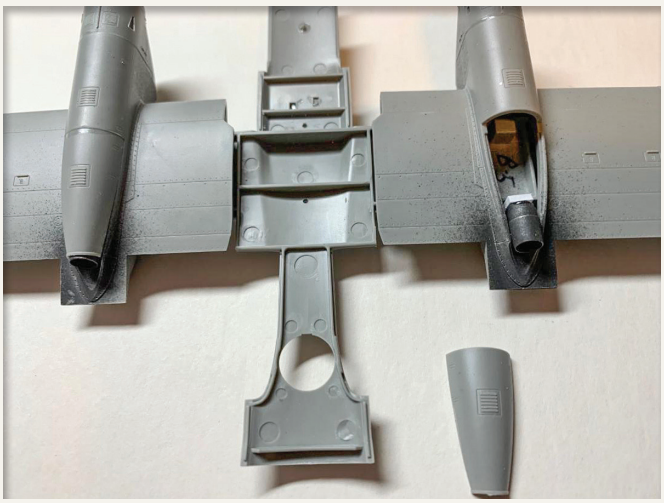
The cockpit tub has the tandum seating with nice raised detailed. I used a coarse sanding stick to remove some of the raised details from the two instrument panels and side consoles that would be replaced with Eduard's PE. I also left off the two sets of plastic rudder pedals to replace them with photoetch parts. I left the two control columns out for the moment, as I planned to paint them separate from the cockpit tub.

I airbushed the cockpit tub, seats, and control columns with Tamiya flat black. Once that dried, I misted thin flat white vertically into the tub,

retaining some of the black below the sidewall raised details. I dry brushed the sides of the ejection seats to bring out the detail. Other details I hand-painted with various Vallejo Model colors.

The crew oxygen hoses were made from .015" lead cord wrapped around a short length of semi-stiff wire. The mask connector I made from a small diameter punched disc using .030" plastic sheet super-glued to one end of the hose. The hoses I brush-painted with Vallejo 71.010 Interior Green, while the connectors I painted silver. Then I fitted a hose to each seat.

The kit required a good deal of weight to keep the finished model from being a tail sitter. I used a variety of lead fishing sinkers and bird shot to fill the gaps. I first glued the cockpit tub to the left side of the fuselage, then I began to add the weights. The stepped cockpit tub helped hold the weights in place while the glue hardened. I tested the balance several times until it appeared there was enough weight in place to hold the nose down.



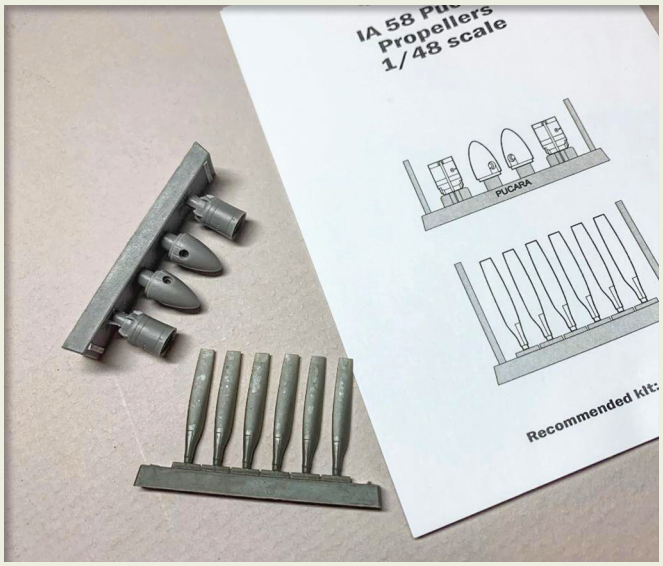
The two wing bottoms and fuselage underside molded as a single part. The main gear wells are trapped between the individual wing tops and bottom. The wing tops include the main engine nacelles. The cowling fronts are two parts and attach to the nacelles, leaving almost no join line. The engine exhausts are separate and are trapped by a rear nacelle top panel. The fit is incredible.

Each of the three stores pylons is made up from five parts, including a pair of sway braces. I left them off during this stage of the build.

Steps 6 and 7 show the assembly of the wings and the front engine nacelles. Each nacelle front is comprised of three parts and the fit is exceptional. Cowling front parts (C11) have a notch that must is placed at about a 10:30 orientation.

The kit exhausts are a bit shorter than the resin Quickboost replacement parts, but even the replacements, when installed, leave very little of the exhausts visible. In hindsight, replacing the kit exhausts was really not important. Not one to be intimidated by smart design and engineering, I painted the resin exhausts flat black inside the tube as well as on the exterior surfaces. Once the black was dry, I airbrushed Alclad aluminum, then a thinned Tamiya XF-64, red brown, onto the exterior. I glued the

painted exhausts in place then glued the rear top panel of the engine nacelles in place. The hidden exhausts looked ... well, pretty hidden.



The three-bladed propellers are attached to the sprue tree in three locations and require careful removal and sanding of the attachment points to avoid damaging the blades. Each assembly is comprised of three parts: the spinner, spinner backer and the three-bladed propellers. The propellers are trapped between the spinner and back piece, making for easy painting. In addition, the exposed gear box is made from three parts that require some clean-up of joints. Having a severe addiction to resin, I could not resist using the Quickboost resin replacement parts. That set provides the spinner and gear box as separate parts plus individual propeller blades.

I washed the resin in warm water and a touch of Dawn detergent, then rinsed with clear water. Once the parts dried, I removed spinners and gear boxes from the casting block with a micro saw and again washed the parts to remove the resin dust. The propeller blades I left on the casting block for painting. The spinners and gear boxes I glued to toothpicks for painting.

All the parts I airbrushed with Tamiya flat black thinned with Mr. Color self-leveling thinner, which I allowed to cure for 24 hours. The gear boxes I painted a combination of chrome silver and blue.

The propeller blades I first painted with Tamiya FX-1 flat black, then rubbed with silver Rub-N-Buff for the metallic finish. Tamiya flat yellow colored the tips.

I airbrushed the wheels with the integral tires with Tamiya flat black, then dry brushed the hubs with Rub-N-Buff silver. Later the tire portions I hand-painted with a 5:1 mix of Panzer Aces Dark Rubber and Light Rubber.

The landing gear struts I airbrushed with Tamiya flat white, then Tamiya XF-71 Interior Green. I followed with a wash of MIG P244 Green. Once the wash dried, the edges of the struts I lightly rubbed with a graphite pencil to add a metallic look to the parts. Last, I airbrushed the struts with a clear flat finish. The oleos I brush-painted with Testor's Chrome Silver.

For the brake lines, I used .015" lead cord. There are several detailed close-up images of the landing gear in the "Pucara IA-58 Visual Modeler's Guide Volume 2" that I used as guides for fabricating the brake lines.

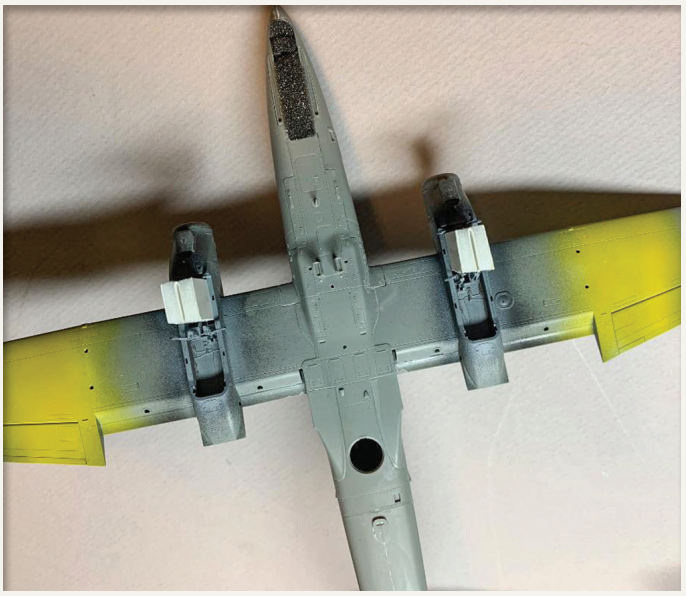
I decided to mount the three fuel tanks rather than any weapons to the wings and center pylon. The tanks and pylons I first prime-painted with flat white to check for any imperfections in the seams. Panel lines I rescribed as necessary. The final color was Tamiya XF-80 Light grey sealed with Future. I applied a panel line wash of burnt umber, and finally a satin clear coat to seal everything.

The canopy and windscreen are two separate parts, allowing the builder to pose the canopy open or closed. The kit includes two plastic

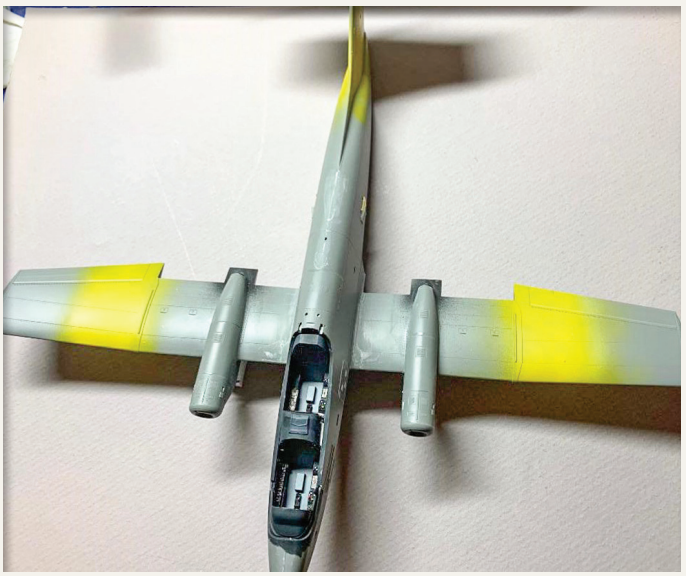
struts to hold the canopy up when open. This is a nice feature as the canopy is a rather large part and would be unstable without the additional support. Once I removed the parts from the sprue, I carefully sanded the attachment spurs smooth and cleaned them with Windex. I then dipped the clear parts in Future and allowed them to cure out for at least 48 hours.

The Eduard mask set (EX789 TFace) provides masking for the interior and exterior surfaces. This is a nice feature, allowing the builder the opportunity to paint the interior frames, offering a bit more realism to the model, especially if the canopy is left open. The set provides border masks for the main canopy that require filling the center areas with a liquid mask or tape. The masks fit generally well within the canopy frame outlines, but they require a sharp eye and steady hand to locate each mask. Once correctly placed, each mask should be burnished to seal the edges. I used the scrap masking material to cover the remainder of the clear portions.

I normally decide early in the construction on the final paint schemes. For this project, I chose yellow panels on the wings' tops and bottoms



as well as the vertical stabilizer. I first applied Tamiya XF-2 Flat White to those areas, followed by Tamiya XF-4 Flat Yellow. I allowed the paint to cure for 48 hours before masking for the final camouflage colors.



The underside I primed with Tamiya XF-2 Flat White and preshaded the panel lines with a thinned mix of Tamiya XF-1 Flat Black and XF-64 Red Brown. I used Vallejo Model Air 71.332 Faded Blue for the undersides, gear doors, flaps and pylons, then sealed it with a light coat of Future.

The demarcation between the underside faded blue and the topside is a sharp line. I used razor-cut strips of Tamiya masking tape to achieve the sharp line. The topside camouflage is an irregular pattern of green and brown-tan. Here I used Vallejo Model Air 71.140 Desert Sand and 71.009 Duck Egg Green. I created paper masks to create the camouflage scheme for this model.

The gun troughs on the nose sides and bottoms appear as dark metallic. I carefully masked the troughs and painted them with Tamiya flat black followed by a rub of graphite from a number 2 pencil.

Once I finished painting, I applied two light coats of thinned Future for the gloss coat in preparation for a panel line wash and the decals.

I used the kit decals with MicroSet and MicroSol for placement.

The canopy I fixed in an open position. I fixed the pylons and fuel tanks in place using short lengths of fine brass tubing.

There are several blade antennae on the fuselage and, rather than risk damaging them during the build, I left them all off and painted them on the sprue. Once the model had been painted, decaled and weathered, I used Formula 560 canopy glue to attach the blades in place, then fitted the gear doors and landing gear in place. The electronics bay circular door on the underside I fixed in place in an open position.

There are two VHF loop antennae fixed to the sides of the vertical stabilizer on the Argentine Pucará. These parts I also painted on the sprue and fixed in place once the model had been painted.

The Pucará has a topside antenna running from the vertical stabilizer to the rear top of the fuselage (which I neglected to install!), plus a second one on the left side, lower fuselage. I used invisible thread for both.

The Pucará IA-58 Visual Modeler's Guide Volume 2-AMMO by MIG Jimenez was a big help in building, painting and detailing this model. The high-quality images were extremely useful. The author also worked with Kinetic Models Kits in the development of the 1/48th scale kit, and it shows.

The fit and detail of the parts was incredible. Kinetic did a marvelous job with research and molding the kit parts. I needed very little putty thanks to the fit, and this kit can be built without any aftermarket accessories. It really helps to thoroughly study the instructions and plan the assembly and painting before starting the build. The long aft section on the fuselage requires a good deal of nose weight to prevent tail sitting. Overall, this was a most enjoyable build.