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NEXT MEETING

Tuesday 18th July
Leys Institute (upstairs)
20 Saint Marys Road
Ponsonby

COMMITTEE

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Secretary - Brett Peacock	Lance Whitford
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The Chairman's Bit

So Winter has well and truly arrived.... What better time for modelling.. I've been busy with a couple of things on the go... I had an interesting time building Zvezda's 1/48 Bf109F this is a nice kit very detailed and with a big parts count for a single seat WW2 fighter... In contrast I'm also finishing off Tamiya's 1/48 US Army Staff Car which is a simple build with few parts. I'm currently debating what to start for the club Silver/NMF subject build... A Sabre is looking favourite at the moment but things may change.

Not much news on the Club front this month. Were still busy trying to sort out a show venue for the club 50th . Stay warm and model on

Cheers

John

Cheap and Cheerful Model Photography

I spotted this setup on Trademe for around \$10 and thought I'd give it a try. For many years I have been using an old Nikon compact digital camera for model photography. The batteries are dying and I was contemplating a new camera when I thought I'd give my cell phone a try. I have a Samsung Galaxy S5, by no means the latest or greatest thing around. Using my phone with this tripod I was able to get photos that were way better than those from my old camera. The hands free Bluetooth shutter control and tripod mount eliminated the blurring I'd got with hand held phone shots I'd attempted in the past. The phone bracket conveniently screws directly into a standard camera tripod mounting.



I do prefer to use my normal camera tripod for big photo sessions but the small one is perfect for the odd quick in progress shot on the work bench for an online posting.

I will now lash out and get a sturdier type of phone bracket (approx. \$5 from Ali Express) now that I have proved the concept.

Lance Whitford

BULLETIN BOARD

NEW MEMBERS AND SUBS *** 2017/18 PAST DUE *******

**Subs for 2017/18 now past DUE - see below for club account details or see the club secretary
at the next club meeting.**

Membership Type	Description	Cost
Full	Living in the Auckland Metropolitan Area	NZ\$45
Out Of Town	Living 75km or more from central Auckland	NZ\$30
Junior	Same rights as full membership for those under 16	NZ\$25

IPMS BANK ACCOUNT NUMBER

03 0162 0012960 00

***Please add your name and details
so we know who has paid!***

EVENTS

CLUB NIGHT EVENTS

IPMS Auckland Meet on the 3rd Tuesday of every Month at the Leys Institute (upstairs), 20 Saint Marys Road, Ponsonby

- July 18th — Airbrush maintenance. A session on consistently getting the best from your airbrushes by using some basic practices

MODELLING EVENTS

Nothing new to report This month.

CLUB SUPPORT

The following retailers have kindly agreed to offer IPMS Auckland club members a discount on their purchases upon presentation of their current IPMS Auckland Membership card.

The discount only applies on selected product lines and remains at the discretion of the retailer.



ModelAir

12 Kent St Newmarket
Auckland
p: 09 520 1236
10% on kits



Stoker Models

Cnr Market Rd & Gt South Rd
Auckland
p: 09 520 1737
10% on kits and modelling supplies



TOYWORLD

Toyworld Henderson
56 Railside Rd, Henderson
Toyworld Westgate
1 Fernhill Dve, Westgate

15% Off the normal retail price on:

- All models and modeling accessories
- All Hornby
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- All Meccano
- Lego (Excludes Lego Mindstorm's they will be 10% if available as most have already been pre-ordered)

(Note: not in conjunction with any other promotion)



Merv Smith Hobbies

27 Davis Crescent
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10% off most items on presentation of IPMS Auckland Membership Card.

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Harrier T Mk.10/12 & TAV-8B Harrier II

Sword, 1/72 Scale

By Mark J Davies



Summary:						
Catalogue Number:	SW72099 - Harrier T Mk.10/12 SW72100 – TAV-8B Harrier II					
Scale:	1/72					
Contents & Media:	Kit	Grey Sty-rene	Clear Sty-rene	Clear Vac-form	Resin	Decal Op-tions
	T.10/12	97	8	1	2	2
	TAV-8B	95	7	1	2	3
Price:	Stockist		T.10/12		TAV-8B	
	Sword		€12.96		€12.96	
	Hannants		£12.83		£12.83	
	Modelimex		€15.29		€15.29	
	West Coast Hobbys		Can\$23.00		Can\$23.00	
	Hobby Link Japan		¥2,160		¥2,160	
Review Type:	First Look.					

Advantages:	Finely recessed surface detail is a big improvement on previous kits of the Harrier II trainer variants. The resin Martin Baker Mk.12 ejection seats add a nice detail bonus to the T.10/12 kit. The optional vac-formed canopy will be welcomed by some.
Disadvantages:	The closed auxiliary intake doors are disappointing, the LEX shape repeats errors widely reported as affecting other brand Harrier II kits, and the same situation applies to a lack of a deployed air-dam. The ejection sets are the wrong type for the TAV-8B kit.
Conclusion:	<p>Sword appears to have derived the master for their kits from the Airfix/Heller kit, but in the process have improved the refinement and presentation of surface detail significantly, as well as providing better cockpit detail and canopies.</p> <p>Sadly, they have not corrected well known and documented errors associated with the older kit, and so Sword's kits repeat the misshapen LEX and fail to provide the lowered air-dam required for a model sitting on its undercarriage. This implies a lack of research and limited networking with modellers "in the know, or an attitude that just improving on an old kit by replacing raised with recessed panel detail will be enough to sell (possibly true!).</p> <p>Sword also missed an opportunity to remedy a failing of many Harrier kits using by providing resin intakes featuring correctly drooped auxiliary intake doors. Instead, they offer miserable and inauthentic depressions resulting from the limitations of injection moulding. Fortunately, Pavla produce resin intakes for the Airfix GR.9 kit that also come with resin exhaust nozzles. These parts should suit the Sword kits equally well.</p> <p>Sword's resin ejection seats appear to represent Martin Baker Mk.12s suitable for the T.10/12 boxing, but not the TAV-8B which uses S-III-S (SJU-4) seats. Fortunately, Pavla can provide the correct seat as an aftermarket purchase.</p> <p>Despite all my griping, Sword has provided us with the most refined Harrier T.10/12 and TAV-8B kits in "The One True Scale"; but they could have given us much more with only a little more effort. As a result I still recommend both kits.</p>

Background

The McDonnell Douglas (now Boeing) AV-8B Harrier II is a single-engine ground-attack aircraft that constitutes the second generation of the Harrier Jump Jet family. Capable of vertical or short takeoff and landing (V/STOL), the aircraft was designed in the late 1970s as an Anglo-American development of the British Hawker Siddeley Harrier, the first operational V/STOL aircraft.

Named after a bird of prey, it is primarily employed on light attack or multi-role missions, ranging from close air support of ground troops to armed reconnaissance. The AV-8B is used by the United States Marine Corps (USMC), the Spanish Navy, and the Italian Navy. A variant of the AV-8B, the British Aerospace Harrier II, was developed for the British military, while another, the TAV-8B, is a dedicated two-seat trainer.

TAV-8B Harrier II

1:72



The UK agreement included the involvement of British Aerospace (BAe) as a major subcontractor, manufacturing sections such as the rear fuselage for all customers of the AV-8B. The Harrier II was an Anglicised version of the AV-8B, British Aerospace producing the aircraft as the prime contractor, with McDonnell Douglas serving as a sub-contractor; final assembly work was performed at Dunsfold, England.

The first prototype flew in 1981, first BAe-built development GR5 flew for the first time on 30 April 1985 and the aircraft entered service in July 1987. The GR.5 had many differences from the USMC AV-8B Harriers, such as avionics fit, armaments and equipment; the wing of the GR.5 featured a stainless steel leading edge, giving it different flex characteristics from the AV-8B. The Harrier T.10 is the British two seat training variant of the Harrier II; based on the USMC Harrier trainer the TAV-8B. Unlike their American counterparts, T.10s are fully combat-capable.

Source: Wikipedia (T.10/12 & TAV-8B)

Previous 1/72-Scale Harrier T.10/12 & TAV-8B Kits

I am aware of two previous Harrier 2-seat versions of the Harrier II, one by Italeri and the other is an identical tooling shared by Airfix and Heller. Both trainer kits are based on their respective brand's single seat AV-8B/Harrier II toolings. Italeri's dating from 1982, with the TAV-8B being released in 1989; and the Airfix/Heller TAV-8B/Harrier T.10 dating from 1991 along with its single-seat boxings.

Both kits are typical of their brands and time, with raised surface detail and some shape issues that have been covered in magazine and on-line reviews over the years since their release.

First Look

The Contents

Each of the boxings reviewed here share the same contents, with only the decals and colour schemes being different; I shall therefore use the singular *kit* for most of this “first look” when discussing them both.

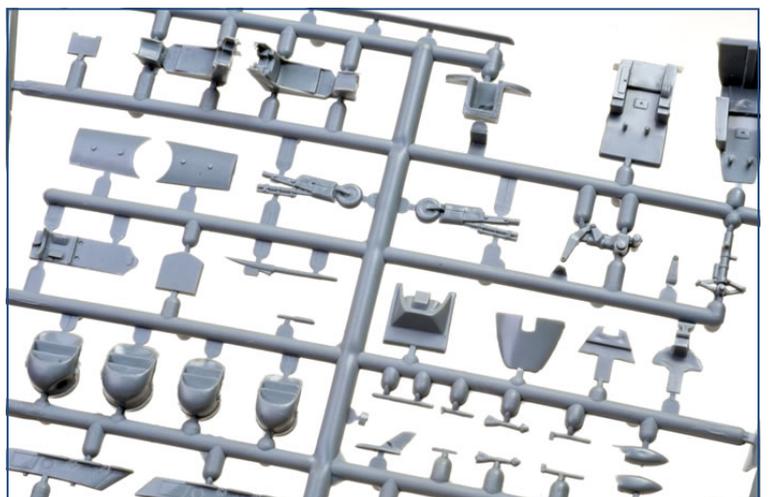


Each kit comes in an end-opening box with digital artwork on the front and colour profiles of the decal option on its rear. Sword's instructions provide a parts map and a generally easy to follow diagrammatic assembly format. All text is exclusively in English and the diagrams are well drawn for a limited-run product.

The painting and decal guide has quite adequate four-view colour drawings, one subject per A5 page, and a single-page stencil placement guide. Sword uses includes BS381 and FS-595 codes for colour call outs.

The parts and decals come enclosed in a zip-lock bag, with the clear parts (both injected and vac-formed) further protected in small bags of their own. The two resin ejection seats are loose with the two main sprues, as are the decals.

This is a typical Sword kit in that the plastic has a more shiny finish than many other limited run brands. It has nicely moulded parts with fine surface detail and acceptably fine sprue gates. Residual ejector pin towers require removal in some places to enable a good fit, but none are placed so as to spoil moulded detail, and the mouldings are flash-free. High production standards apply to the resin, and clear parts .

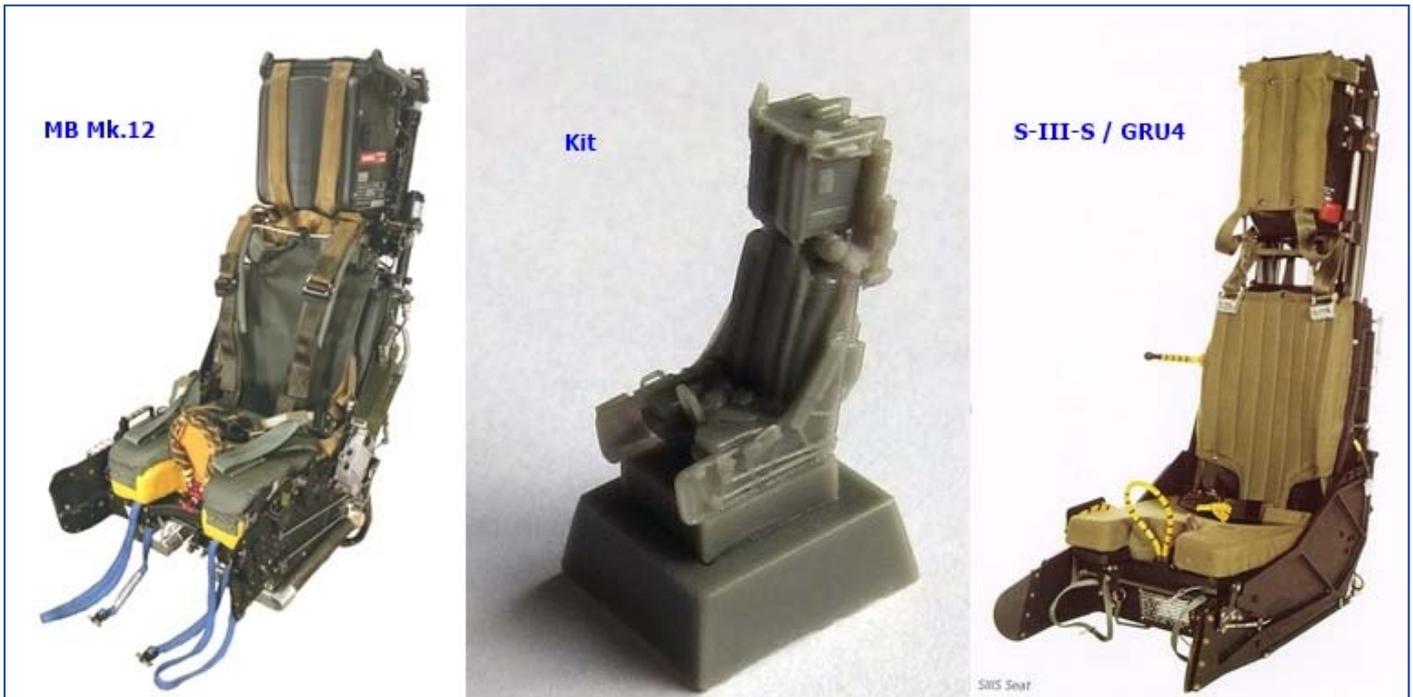


The Airframe

Parts break down is conventional for the type.

Most of the cockpit detail is just adequate, but fortunately the seats are quite nicely detailed resin components, meaning that some of the most noticeable detail is also the best.

The seats do however present a problem for the TAV-8B option. I am no expert, but I understand that British Harrier IIs use Martin Baker Mk.12 seats, and that AV-8Bs and TAV-8B's use Stencil S-III-S (SJU-4) seats. I think the kit provides Mk.12 seats suitable for the T.10/12, but not the TAV-8B.



Fortunately, Pavla produces a 1/72 scale [S-III-S \(GRU-4\)](#) seat as an aftermarket item.

Some may wish to replace the kit's simple clear-slab HUDs with aftermarket PE items.

So what is supplied is largely fine for a closed canopy model (at least for the T.10/12 option), and may well be enough for some who opt to have open canopies. The kit has a multi-piece styrene canopy that can be modelled open, and a vac-formed single-piece canopy offering greater clarity (this of course can also be cut to enable an open canopy display). Decals are provided to represent the canopy det-cord.



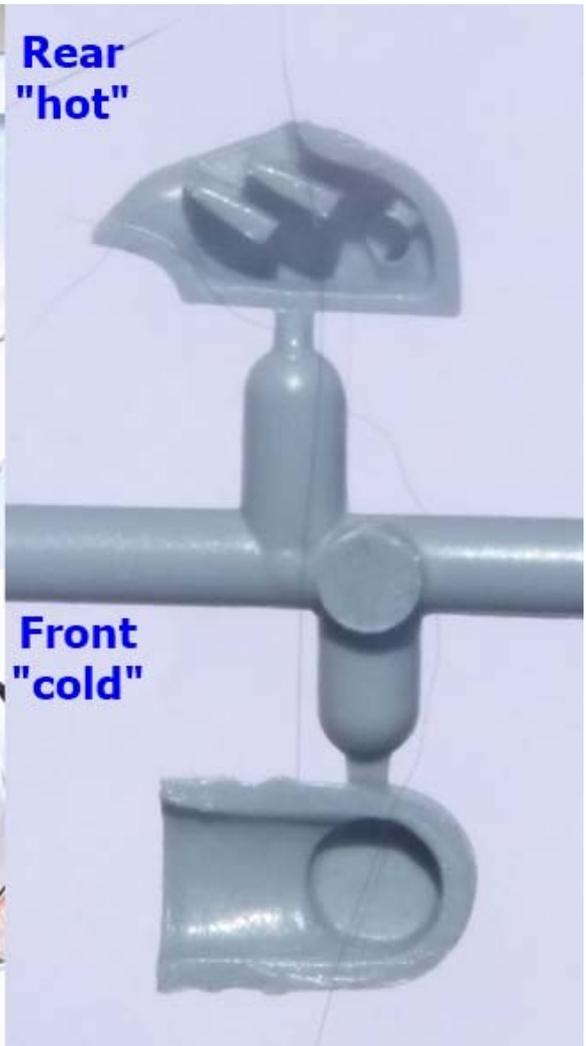
The large front fan of the Pegasus engine is very evident and is moulded within its associated intake trunking (just like the Airfix kit). The fuselage halves enclose this, the cockpit, and ventral air-brake housing. Different noses are supplied to cater for the Forward Looking Infra Red (FLIR) example fitted to the T.10/12 and the simple cone fitted to the TAV-8B.

Now to a real weakness of this kit, and it is one that many Harrier kits share. The uppermost and side auxiliary intake doors are moulded as slight depressions, rather than drooped fully open as they are when the engine is shut down. This is due to the limitations of Sword's simple two-piece injection moulds, but could have been avoided if resin intakes had been used here I feel.



Fortunately, Pavla produce [resin intakes for the Airfix GR.9 kit](#) that also come with resin exhaust nozzles. These parts should suit the Sword kits equally well.

Some may gripe about the lack of vanes within the "cold" forward engine nozzles, and the awkward seams down the middle of the dived "hot" rear; but both issues can be overcome easily enough or use the [Pavla nozzles](#) mentioned above.



Less easy to fix is the apparent error in the shape of the Leading Edge Extensions (LEX) and the angle at which they blend into the upper fuselage just behind the rear cockpit. The kit's LEXs are too angled inwards towards the front where they join the fuselage, whereas they should be more parallel with fuselage centreline. The LEX leading edge seems to also be slightly off in outline, and would benefit from thinning down.



Another concern with the kit is its closed lift augmentation cross-dam, which I shall refer to as an air-dam. When landing and/or on the ground the Harrier II's air-dam, a panel just behind the nose-wheel, extends to perpendicular with the fuselage underside and closes the space between the under-fuselage Lift Improvement Devices (LIDs), or in layman terms, the strakes in place of cannon fairings (the air dam is also lowered when the cannon or just their fairings are fitted, as these serve as LIDS).



The kit includes the engraved outline of the air-dam, but it will take a bit of effort to replicate a lowered dam and its housing that is really required by a model on its undercarriage (the kit does not provide an in-flight undercarriage option).

In many respects, the kit resembles the Airfix/Heller offering in shape and parts breakdown. This is also a view supported by comments on some leading modelling forums. I cannot be sure, but Sword may well be using metal-spray or galvanised, epoxy toolings, in which case their master may well be based on the Airfix/Heller kit. Whatever its origins, Sword cannot be excused for repeating the LEX and air dam errors as these points have been raised in reviews and forum discussions for over 25 years since the Airfix/Heller kit's.

Another aspect that seems similar to the Airfix/Heller kit, and pertaining to the T.10/12, is the shape of the nose. This incorporates the clear glazing for the Angle Rate Bombing System (ARBS) laser in the tip of the nose, and immediately beneath are the two Zeus ECM sensors. Having looked at the Sword kit parts and finished examples of the Airfix/Heller kit, I feel that they may look a little too narrow and pointy. I mention it as a point for readers to judge for themselves by comparing their kit parts to reference images.



Pavla produces replacement [Zeus ICM fairings](#) for the Airfix GR.9 kit, but they seem an easy item to scratch-build if you are not happy with the kit items.

The tandem undercarriage units have a quite adequate appearance, as do the main wheels and their doors. Sword has moulded the outriggers in their lowered state, which should suit the majority of modellers (but really requires a lowered air-dam to be scratch-built as mentioned above).

The wings consist of three parts. The vortex generators are a little thick, but are limited by what is possible with injection moulding. They are better than some other Harrier kits in this respect, and they should be acceptable to most I feel.

The T.10/12 has four underwing pylons and two fuel tanks provide the only aircraft stores, although more stores would have been nice. The TAV-8B only requires the two fuel tanks and their pylons, as this version does not carry offensive stores. As a result, the TAV-8B has separate control surface actuator bugles, whereas the T.10/12 has them incorporated into the store pylons. This said; the most out-board bulge for the TAV-8B needs to be cut off from the applicable pylon intended for the T.10/12.

From what I have observed, the T.10/12 carries the fuel tanks on the stores pylon inboard of the undercarriage outriggers, whilst the TAV-8B's only pylons are fitted immediately outboard of these. I have also read that British Harrier II pylons differ from those fitted to single-seat AV-8B's as they are required to carry heavier loads, plus they have an additional dedicated Sidewinder missile pylon in the outboard position. Since Sword has provided four rather than three underwing pylons for the T.10/12 kit I assume that they are the correct British style.

I think this should be a simple and enjoyable kit to build, albeit that there are some fiddly annoying fixes to contend with if the LEX shape and lack of lowered air-dam bother you; and if they do, it will surely mean you want to improved the auxiliary inlet doors too.

Colours & Markings

The T.10/12 boxing has two decal options:

- T.10, ZH656 / 104, No 20 Squadron RAF, RAF Wittering, 2007; and
- T.12, ZH657 / 105, 800 NAS, Fleet Air Arm, Fairford 2010;

1/72 scale

Harrier T.10/ T.12

Harrier T.10 ZH656/104, No.20 Squadron, RAF Wittering, 2007



Harrier T.12 ZH657/105, 800 NAS, Fleet Air Arm, Fairford, 2010

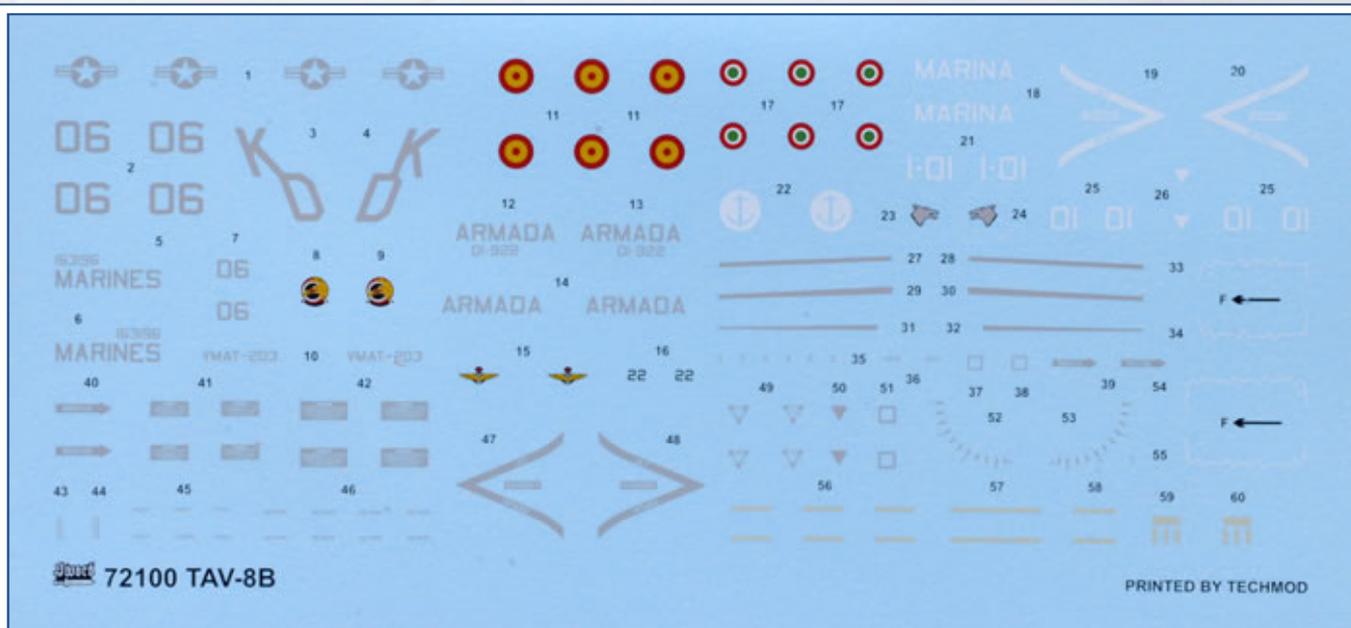


SW 72099



And the TAV-8B boxing has three:

- Bu No 163196, VMAT-2013,USMC, Cherry Point;
- 1-01, Gruppo Aerei Imbarcati, Marina Militare; and
- 01-92, Armada Espaniola.



Conclusion

Sword appears to have derived the master for their kits from the Airfix/Heller kit, but in the process have improved the refinement and presentation of surface detail significantly, as well as providing better cockpit detail and canopies.

Sadly, they have not corrected well known and documented errors associated with the older kit, and so Sword's kits repeat the misshapen LEX and fail to provide the lowered air-dam required for a model sitting on its undercarriage. This implies a lack of research and limited networking with modellers "in the know", or an attitude that just improving on an old kit by replacing raised with recessed panel detail will be enough to sell (possibly true!).

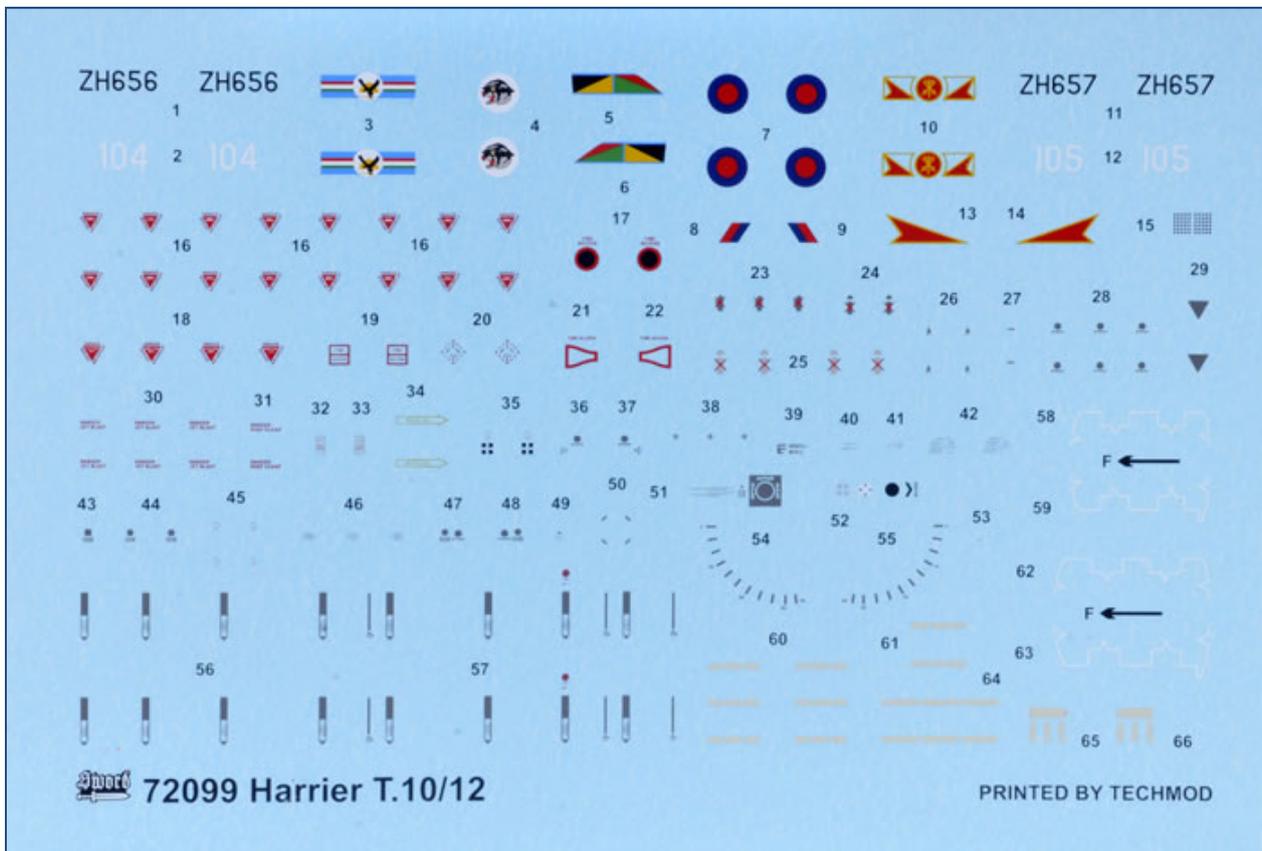
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Despite all my griping, Sword has provided us with the most refined Harrier T.10/12 and TAV-8B kits in "The One True Scale"; but they could have given us much more with only a little more effort. As a result I still recommend both kits.

Thanks to [Sword Models](#) for the review samples.

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Review Images Copyright © 2017 by Brett Green



1/48 Junkers Ju 87B-1 Sturzkampflugzeug (Stuka)

Airfix 1/48

By Brett Peacock



In-box review:

158 pieces (plus a number marked as not used) \$ 85.00 NZ from Modelair, Newmarket.

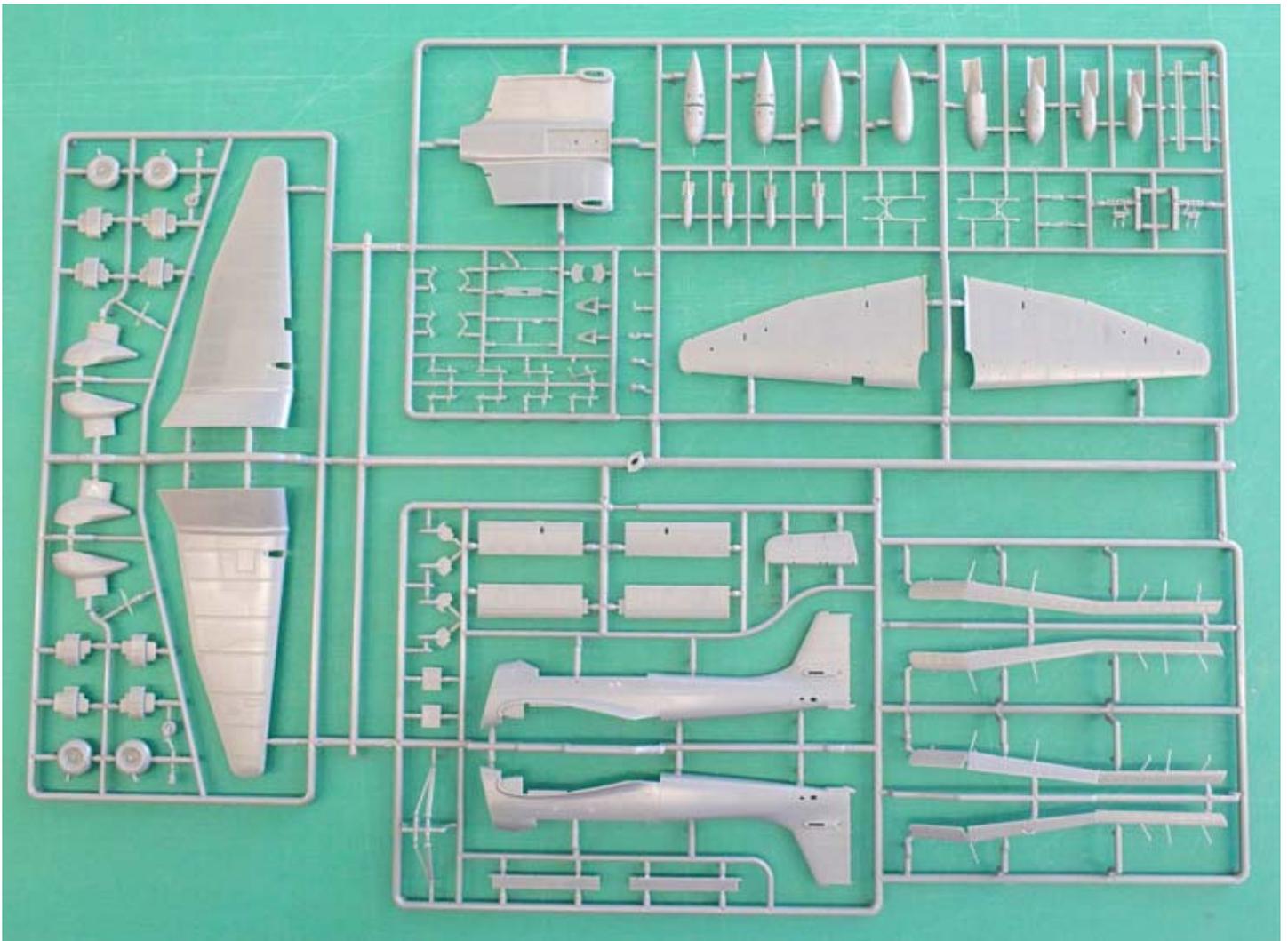
7 grey sprues and 1 clear.

Cartograf decals provide 2 Options - 1 German, 1 Spanish Nationalist.

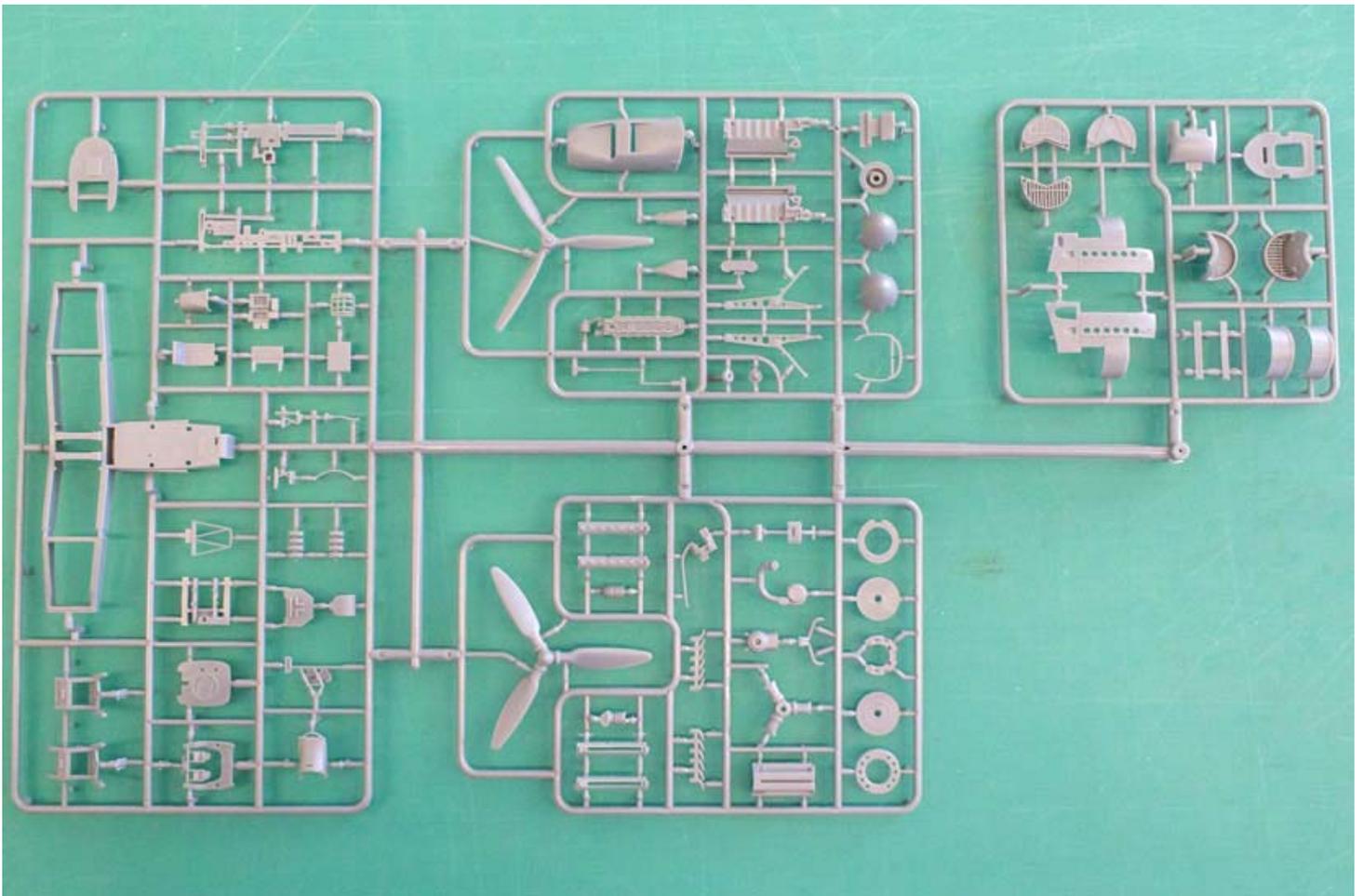
Despite the fact that it was the B-1 variant that fought the majority of the battles that earned the Stuka its fearsome reputation in the first 18 months of the Second World War it has not been kitted before by any of the major manufacturers who concentrate on the B-2 and R variants of the Classic Stuka type, a variant which was only coming into service after August of 1940, by which time the Stuka's vulnerability to any fighter opposition had been clearly shown, leading to its' withdrawal from the front lines of the Battle of Britain. Indeed, as a result, the development of the D types had been accelerated by the end of 1940 and it was entering service less than a year later, shortening the expected life of the B-2 and the R type (with extended range via drop tanks).

So, how does this new kit stack up? (Apart from being “Yet another German plane?”)

Well, it stacks up very, very well indeed. Firstly it is amongst the best of the “New” Airfix kits with lovely petite engraved (and some raised, where apropos) detail (but few rivets) and what I have to describe as the best non-resin Stuka Cockpit I have ever seen (Including 1/32 and 1/24 kits!) The first 20 or so steps in the instructions are devoted to just the cockpit! Accurate dihedral and anhedral on the cranked wings are achieved with a neat spar piece which mounts under the floor of the cockpit and its’ construction (it has a number of attachments you need to include) is part and parcel of the cockpit. There are a number of options tucked away in the instructions: First you can build it with a complete, exposed engine or simply “all buttoned up” for flight. The flattened tyres are 2 position: install with flat down for a landed aircraft or round tyre down to mount on a stand and have it in flight - as simple as a tab which mount into a slot in the spat in one of two ways. (Another related option requires removal of about 2mm from the top of the spat halves (marked by an engraved line internally!) to shorten the U/C length and simulate a loaded airframe. (A VERY neat solution!)



The main part of the kit is four largish sprues and the 3 remaining sprues are of particular interest as they point to more than 1 future kit being planned. These three sprues ALL pertain to the engines and cowlings and propeller parts. (in addition one of the main sprues include 2 main load bombs (500 and 1,000kg bombs as well as Drop tanks) I am fairly sure a B-2 and an R variant are not far off, now. Especially as the Radiator for a B-2/R, is one of the parts marked as unused. Also 2 propellers are included, one standard and one paddle bladed (the R propeller) as well as 2 exhaust types – the straight outlets (B-1) and the curved Ejector style outlets.(B-2 and later) Both styles of supercharger intake are also on these sprues, rounded (B-1) and squared (B-2/R). To make a B-2 or R you only need new Cowling parts (mostly the top cowling with new oil cooler intake, which changed significantly on the B-2.

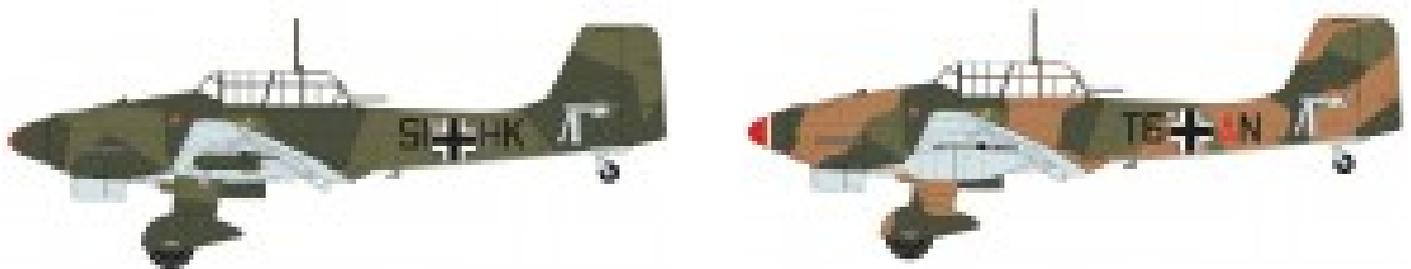


A new variant is expected in Q4 2017: 1/48th Junkers JU-87B-2/R-2 Stuka - ref. A07115

Source: <http://www.airfix.com/uk-en/shop/new-for-2017/junkers-ju87b-2-r-2-1-48.html>

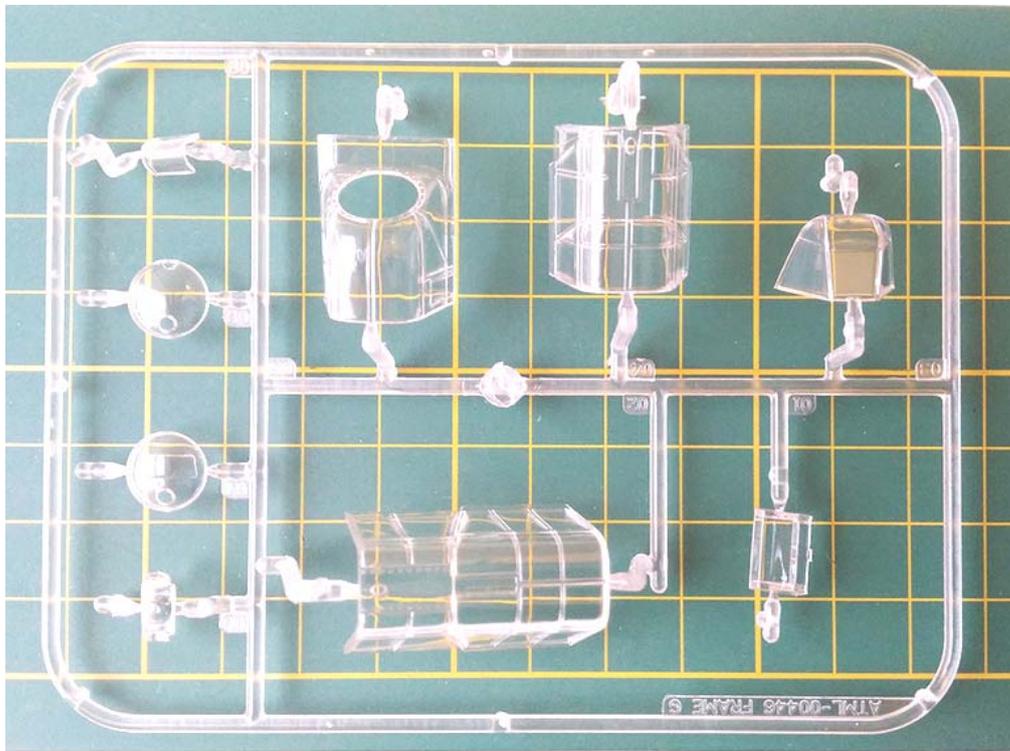
- Scheme 1 - Ju87R-2 S1+AK 2./ST.G. 3 Greece Spring 1941

Scheme 2 - Ju87B2 T6 + AN 5. STG.2 'Immelman' Libya May 1942

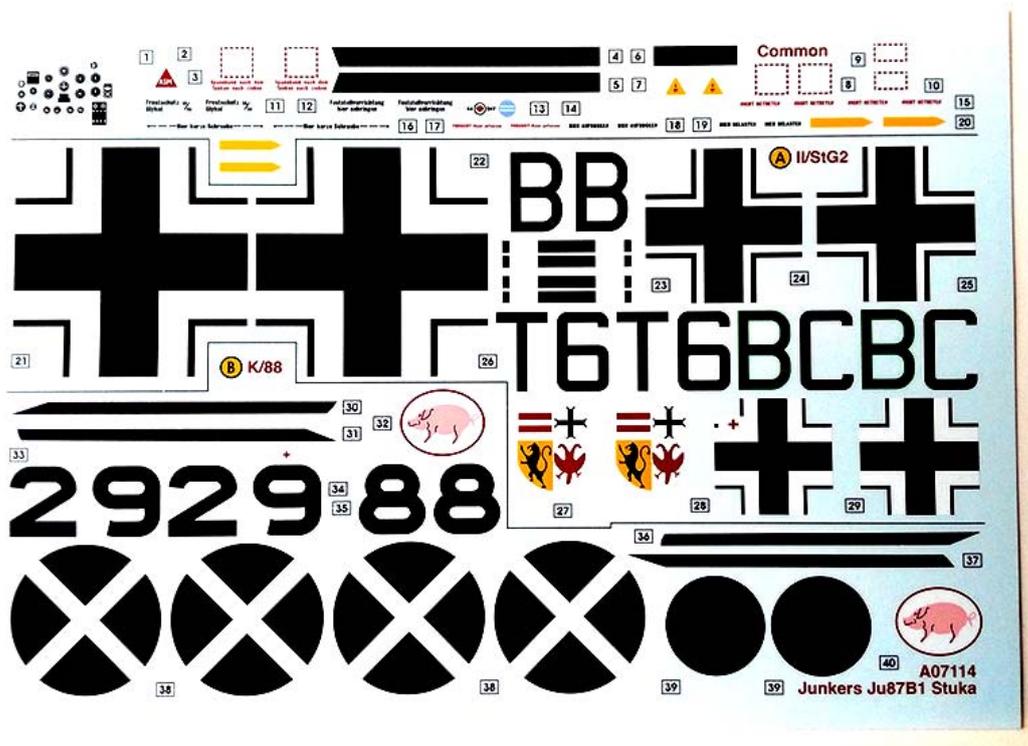


But, interestingly, D and G variants are also liable to be considered. (Yes, the wings are on easily to change parts of their sprues. Another giveaway is that the wing MG fairings are provided as separate inserts. (The famous Sirens are also present on the main sprues)

Unlike other Stuka kits (I have not actually seen the Italeri kits yet, but I'm given to understand that they have multiple "issues") Airfix gives you a number of not seen before features- notably positionable elevators and rudders and scale mountings for the flaps and ailerons - moulded as part of the flaps and ailerons. They WILL require extreme care when assembling. The canopies in my example look to be excellent (Chatter about flaws in this area has been heard) and they correctly call out which frames are internal and which are external. Airfix also provide 2 gunnery position glass pieces, 1 un-armoured and one with armour.



The instructions are in the current Airfix style of Cad images with colour to aid in part location. And cover every step clearly and in detail with color callouts by Humbrol paint numbers -(Surprise!)in 92 steps (with about 20 of these being optional). Decals are, as you might expect, in perfect register with good colours and extensive stencils and an instrument dial decal, but no swastikas or part thereof. (Something Airfix really should address, either with parts or a small add-in sheet for non EU



John at Modelair has one on the bench and reports that the only real issue is fitting the Closed up cowling to the rest of the kit – it’s a good fit, but needs a lot of care and some filler to align and disguise the joints. Others report that there are some poorly placed ejector pin marks and sink marks but none are serious or unfixable.

Conclusion: “New Airfix” continues to impress with their choice of subject, finesse of mold-making and design. By adding in Cartograf decals you can be sure of a world class product in the box As Tom Cleaver said in his review of their Mk I Hurricane “Best. (Stuka.) Kit. Yet.

Mini Art T-54-2 Model 1949 Soviet Medium Tank 1/35

Review by
Andrew Birkbeck



Product provided by: MiniArt Models, Kiev, Ukraine

Background

As production ramped up, it was discovered that the T-54-1 Model 1947 had a number of technical issues. This led to relatively few vehicles being produced, and production ceasing quickly, to be replaced as the problems were sorted out with a modified variant, the Model 1949. This second variant had a different turret configuration than its predecessor, the fender mounted machine guns of the Model 1947 were deleted, and the fender mounted cylindrical fuel tanks (as seen on late model T-34/76 and T-34/85 tanks) were replaced by a rectangular design.

This is the second T-54 kit from MiniArt that I have had the great pleasure of reviewing for IPMS/USA. The first, MiniArt Kit #37003, was of the T-54-1 Model 1947, the first production variant of this important Soviet Cold War warrior. For this review, see here:

<http://web.ipmsusa3.org/content/t-54-1-model-1947-soviet-medium-tank>

The T-54-1 Model 1947 kit was an "Interior Kit", which meant it included an almost full interior: driver's area, hull shell stowage, and a superb engine, plus a fairly complete turret interior. The kit under review today is a stripped-down version, being minus the interior. I believe most modelers would be quite happy to avoid the interior of the other kit, since it was a heck of a lot of work, and

What's in the MiniArt Box

48 sprues large and small of gray plastic parts

1 sprue of clear plastic parts

1 frets of photo etched brass parts

1 sheet of water slide decals with 6 different marking options

1 black and white instruction booklet, 16 pages, with 69 assembly steps and incorporating a color markings and painting guide

Before You Start Construction

Before you start construction of this kit, you will need to figure out a very important matter: how to create a sane system to keep track of where each sprue is on your workbench and the parts thereon. Even with "fewer" sprues than the "full interior" kit (74), it is quite a task! I came up with the idea of getting a large document storage box, and a bunch of large file folders. These were then labelled "A", "Ba", "Cb", "Hk" etc and the appropriate sprue(s) slipped into each folder. Then as you need a part, you reach into the storage box and pull out the appropriate folder and the sprue(s) contained therein.



Under Construction

The MiniArt T-54 series of kits are a tour de force of model engineering. Whether you tackle a full interior kit, or one that is minus the interior detail, each model is loaded down with parts that contain the highest levels of detail, and, thanks to CAD, that fit together surprisingly well for incorporating such a smorgasbord of parts, both plastic and photo etched brass. Everywhere you look you find crisp bolt detail, fine weld detail, and great representations of cast metal. Strangely for a new kit, there was flash present on various items, such as very occasionally on the road wheels. Absolutely nothing to be alarmed about, as a few simple swipes of the hobby knife removes the offending plastic. However, it is a tad surprising given these are new molds. I noted no ejection pin marks on any parts that are visible once construction was concluded. One note however before construction begins: make sure you have a VERY fine razor saw blade, one such as this available from UMM USA, as seen here:

http://umm-usa.com/onlinestore/product_info.php?cPath=21_28&products_id=35

Why? Because if there is one “fault” to MiniArt kits that I have built, in terms of ease of assembly, it is that some very fine parts are attached to the sprues by masses of sprue attachment points. Even though the plastic used by MiniArt in this kit is fairly robust and flexible, there is a risk of damage if you try to remove these finer parts from the sprues with regular sprue cutters. Be warned!

Construction of the kit starts with the lower hull plate, part A42 and the (workable if you are careful) torsion bar suspension parts. Study the kit instructions carefully, and highlight the parts that you need to keep free of glue (so that they remain working). If these workable parts bind up with glue, you will have problems later. Carefully following the diagrams, Section 1 through 10, and making sure the glue doesn't go where it isn't supposed to for the working parts, makes for these sections being trouble free.

Section 11: care is required in getting the parts in this section, KC2 (x4) and KC3, to attach to the model such that the suspension arms remain free moving. Section 12 repeats the process for the other side of the hull. In Section 13, the instructions ask the modeler to remove sections of plastic from part A2. You have to measure, and then cut/file away various small sections, making a chamfer. Measure twice, cut once. You will be asked to do similar cutting/filing in Section 16, part A1.

Section 20: this is where the modeler glues together the three main sections of the lower hull: the lower hull plate, and the right and left sides of the lower hull. It is advisable to have handy at this point part Ba5, the sloped glacis plate part. Also have handy parts C32, C34 and Ca30. These are the rear hull plates. Utilize the rear hull plates and glacis plate at this time to make sure that the lower hull plate and left and right hull sides are all lined up properly. If they aren't, you will experience gaps later when it comes time to actually install parts C32/C34/Ca30.

Section 21: the road wheels. These are the so called “Spider” type, early versions of which began to appear on T-34/85's at the end of WW2. The detail on these is amazing, including the subtlest of weld marks. Slightly (but only very slightly) let down by the need to remove small amounts of flash from some of the areas of these parts. The road wheel assemblies are a total of five parts. There are the two actual road wheels themselves, parts Hk5 and Hk6, plus a small disk part, Hk3, which goes on the inside wheel (Hk6) which butts up against the hull. Then there is the outside wheel's hub cap, part Hk1, plus a mounting pin, Hk4. I mention all this because the parts are interchangeable, and yet they are not. What I mean is that when you are gluing the parts onto one another, they fit two ways. The right way and also the wrong way. And if you glue them on the wrong way in Section 21 (the first three parts), they won't fit properly when you go to glue on the last two parts, in Section 22.

Section 22 has the modeler assembling the four-part drive sprockets. If at all possible, keep these free moving, as it helps with the installation of the individual link tracks later. Likewise, the idler wheels, each six parts, and their mounting arm, part Kd2, should be kept free to move/pivot to help with track installation.

Sections 22, continued: mounting the road wheels to the suspension arms. Start by gluing the First and Fifth place road wheels to first one side, and then the other and applying glue to the suspension arms so that they are glued in position solidly and at the correct ride height. I use a jig to hold the wheels in place so that they are lined up exactly front to back and at right angles to the hull. I let the glue set for about 15 minutes on the first side, then work with the two wheels on the opposite side. Then clamp the first side in the jig again for a further 15 minutes, and repeat with the other side again for 15 more minutes too. Check while this is going on that all four corner wheels sit on a flat surface evenly. Allow the glue to set overnight. Return the next day and install the second, third and fourth position road wheels, again using a jig to make sure they are all lined up both front to back and at right angles to the hull. As with the first time around, allow the road wheels to set up for 15 minutes and then do the other side, clamping them in their jig for 15 minutes. Switch sides, and clamp for 15 minutes a side. Making sure once again that all the wheels are touching a flat surface evenly.



Sections 23 through 26 involve the attachment of various small fittings to the front glacis plate, and the rear hull plates, and then the installation of these onto the main lower hull unit. Make sure you drill out the various mounting holes from the inside of the glacis plate and rear hull plates at the appropriate times during the assembly sequences. In Section 23, you install part Ca3 on the rear hull plate Ca30. Ca3 is a very fragile, spindly part, attached to its sprue way too many times for ease of removal. CAREFULLY remove it from its sprue utilizing the UMM razor saw, and then equally carefully, using a sharp hobby blade and sand paper, remove all the burrs where the part attached to the sprue. If you are careful, the part will remain intact for installation onto the rear hull plate.

Section 27/28: upper hull main plate and fittings. The main upper hull plate, part F11 is a near perfect fit to the lower hull unit. Sections 29 through 33 involve the rear upper hull plates and their fittings. There are three lovely photo etched grill parts, PEa37 and Pea38 (x2). Carefully remove these from their PE "sprue", and carefully clean up the attachment burrs. These parts are very easily bent by flexing, so as I say, be careful. Mount them extremely carefully with very low tack tape onto some small pieces of cardboard or popsicle stick so that they can be primed and painted on their own. Make sure to mist on the primer and the paint, and have the parts mounted so that the primer/paint doesn't build up, causing the fine mesh to become clogged. In Section 33, parts C1 and C2 are yet more parts that are attached excessively to their sprues by multiple attachment points. Unfortunately, my luck ran out here, and I shattered these parts attempting to clean them up. Thankfully when this happened, I managed to hold onto the parts, and thus denied the Carpet Monster an easy lunch. I was able to glue them all in place without ruining things, thankfully.

Section 34 through 37: construction of the fender mounted fuel tanks and storage boxes. All these parts are highly detailed, and the fit is superb. The design of the parts insures that if assembled carefully, there are no seams that need cleanup. Once assembled, these tanks/boxes are glued in place onto the fenders. They have restraining brackets and extremely fine fuel lines, Sections 38 through 42. Make sure that once the various brackets are glued in place, the fenders are test fitted to the hull sides. Adjust the mounting brackets as necessary before the glue sets up solidly, to insure a good fit of the brackets to the hull sides later.



Section 43: track assembly. MiniArt supplies the modeler with individual track links, each attached to their sprues in four places. So, there is the very tedious process of removing each track link and cleaning up the four sprue attachment points. **HOWEVER**, your reward for this tedium is that you receive some of the most amazingly detailed injection track links you will ever see, down to tiny little casting numbers clearly readable on each piece with magnification. Astounding. Did I mention that there were 90 links per side? Remove and clean up all the links, before beginning the process of gluing them together. Glue the track links, and utilize a metal straight edge ruler to keep them lined up. Start by putting together a straight section of track for under the road wheels where the track touches the ground. Once this straight section has been allowed to dry overnight, glue it to the road wheels. Once attached firmly to the road wheels, start a second length of track moving backwards from the rear road wheel, up and around the drive sprocket, and across the road wheels, to the front idler and back to the section of track glued to the road wheels. Adjust the drive sprocket position and the idler arm to that you get a nice sag to the tracks and so that this second length of track attaches evenly to the already glued section. Make sure you use a slow curing glue for this process as you will need time to test fit as you go along.

Section 44: fender attachment to the hull sides. Take your time, test fit, adjust where necessary, and apply glue. If possible utilize a clamp, all the while keeping an eye on the large fender parts as they dry, so that they don't move out of alignment. Also in this section, install the two tow cables. MiniArt provides the two cables as one-piece units, cable and ends together. These parts, Kb1 x 2, are attached to their sprues with numerous attachment points. The attachment burrs must be cleaned up carefully, to avoid damaging the cable detail. Frankly, I found this a total pain, so instead I cut off the plastic cabling from the cable end pieces, drilled out the cable mounting points and replaced the plastic cabling with Eureka brand braided copper wire tow cable of a suitable diameter. Eureka brand is a superb product, and is very user friendly.

Section 45: unditching log. Soviet T-54/55 tanks (and many others!) come with an unditching beam of some sort. In the case of the T-54, this is attached to the vehicle at the rear, below the rear hull external fuel tanks. MiniArt provides a very nice "log" with good detail. It attaches with two small photo etched brass straps.

Section 46: attachment of the rear hull external fuel tanks. This is a very tricky procedure, requiring as it does the construction of a couple of mounting “straps”, each involving two plastic and two PE parts. Study the instruction diagrams very carefully, and proceed with caution and due diligence. If you do this, things should work out well for you!

Sections 48 through 61: turret construction. MiniArt provides some turret interior detail in this kit, but nothing compared to the earlier, full interior kit. What is provided in certain cases makes little sense, other than perhaps because it was contained on sprues needed for this kit, and so “why not install it”? Some of the detail is often random, and certainly can’t be seen through the turret hatches if left open, so why include these details? Who knows. This isn’t a criticism *at all*, simply a statement of inquiry? **What is** required are the interior parts for the gun breach and the parts that mount this to the turret shell. The detail for the coaxial machine gun is included, such as ammo box and spent casing collection container. Other than the barrel, it can’t be seen once the turret is buttoned up, but it is there. The commander’s and loader’s hatches can be deployed open or buttoned up, and there is internal periscope and latch details included. Everything fits together superbly well, as it has throughout the construction process thus far, and again, the parts are loaded down with excellent detail such as subtle weld marks, and excellent cast metal texture details.

Sections 63 through 66: the turret top mounted commander’s AA gun. A miniature model itself, consisting as it does of nearly 30 plastic and PE parts. Definitely the most detailed such weapon on any existing kit on the market today.

Sections 67 through 69: the final few assembly sequences wherein the main gun and gun mantlet are attached to the turret base, and the turret shell is attached to the turret base. The main gun is a one-piece affair, and the part is straight as can be. A simple matter of removing the seam line via a sharp blade and some sand paper.



Paint and Decals:

MiniArt provides the modeler with six marking options, all in standard “Soviet Green”, and reading between the lines (because it isn’t clear), being contemporary to the manufacture dates, i.e. the 1950s. I chose vehicle “649”, which also comes with a diamond symbol with a roman numeral “III” in it. Paint colors are called out in the instructions for the following brands: Ammo by Mig, Humbrol, Mr. Color, Testors and Vallejo.

I first airbrushed the kit in my favorite primer, Tamiya rattle can “Fine Surface Primer Light Gray”. This is an acrylic lacquer product and one of the best primers on the market IMHO. I first get a bucket of hot water from the tap and immerse the rattle can in the water for 5 minutes. I remove and dry the can, and then shake the living daylights out of it, to insure a thoroughly mixed can of paint. The hot water heats the paint, thus allowing it to flow better, and by heating the can, I also increase the pressure within the can, thus providing a higher PSI as the paint exits the spray nozzle. This is particularly helpful when the can is less than a quarter full near the end of its life. The Tamiya primer leaves the model with a very smooth surface once fully cured, and doesn’t obscure the fine detail on the kit parts. I then airbrushed Vallejo Black acrylic primer over the entire model.

For the Russian Green, I found a mixture online consisting of the following Tamiya acrylic colors: XF-73 Dark Green x 6 parts, XF-49 Khaki x 3 parts, XF-4 Yellow Green x 1 part, plus some X-22 Clear Gloss to give the paint a glossier finish to aid decal adhesion. This was thinned with Tamiya brand acrylic thinner. Once dry to the touch, the original mix was lightened with more XF-4 Yellow Green, and thinned further, and airbrushed onto various panels.

I then found a couple of additional green colors from my various paint stores, and airbrushed these randomly about the place, including various fuel cells, hatches, etc. This to break up the “uniform green” look of the original Tamiya color. This isn’t necessarily accurate, but it certainly is appealing to my eye, in a sort of “Impressionist” way of painting a model kit. Like the original Impressionists from the late 1800s, my intention isn’t to portray life “with complete accuracy”, but rather to give the viewer something interesting to look at. My model, my way of enjoying the hobby, and I have found many people enjoy looking at this way of depicting a vehicle model.



Once the paint had cured for a couple of days, I airbrushed a few thin layers of Tamiya X-22 onto the model, and applied the decals. Four in total: two turret number decals, and two diamond symbols, applied in front of the turret numbers. MiniArt’s decals in this case are perfectly useable. I utilized the Gunze Sanyo setting solution combo (blue top, green top), and after allowing them to dry for 24 hours, applied some light coats of Tamiya X-22 to seal the decals.

After the final clear coat was given a couple of days to cure, I mixed up some dark brown oil paint “wash”, and applied it liberally to the areas of raised detail and in the various recesses. This was allowed to dry for 24 hours before some Q-tips dipped in odorless mineral spirits were used to remove any excess “wash”. The model was then left alone for 72 hours to allow the oil paint wash to set up, before a few light coats of acrylic matt clear were applied. My favorite is AK Interactive’s “Ultra Matt Varnish AK 183”, the “matt-est” matt on the market. I airbrush this without thinning it, straight from the bottle. All my paints are airbrushed utilizing an Iwata HP-C and the paint is sprayed at between 12 and 15PSI depending on the consistency of the paint (if thin for post shading, then 12PSI, but otherwise 15PSI for most applications).



I then took a suitably dark gray color from the Vallejo range of acrylic paints and mixed a couple of drops up with some distilled water and a dab of Vallejo airbrush thinner to break the surface tension. I snipped off a small piece of sponge from a sheet I have of this material, and dipped the sponge material in the paint. I then wicked most of the paint off on a paper towel, and then proceeded to dab the paint-covered piece of sponge randomly about the model, “chipping” the Soviet Green paint. I then repeated this process using a dark rust color, only less so. I added to the “chipping” using both these colors, and a fine tipped brush, making scratch marks etc.

Once this was dry, I got out my Lifecolor set of “Liquid Pigments: Rust”, and proceeded to apply dabs of liquid pigment here and there about the model’s surfaces where I thought rust might occur. I paid particular attention to the engine exhaust outlet, as the high temperatures associated with this area of the vehicle tends to blister off the paint on the metal parts fairly quickly. Without paint, these parts are then prone to surface rust.

I took the primed rear deck screens which I had left off the model during earlier assembly work, and painted them with Vallejo Olive Drab primer. Why? Simply to add another green hue to the “texture” of the vehicle! The screens were then glued in place using super thin cyano glue utilizing a Glue Looper. If you haven’t tried the Glue Looper for applying runny super glue, you don’t know what you are missing! Google it, buy it!

Regarding the commander’s turret AA gun, this was sprayed independently of the turret and hull with Vallejo black primer. Once fully cured, I hand painted all but the barrel with Vallejo Olive Drab primer, the same color used for the rear deck screens. I then “chipped” this paint utilizing the gray paint method mentioned earlier.

The tracks were hand painted utilizing Vallejo “Track Color”, a dull rusty brown color. Various shades from the Lifecolor Liquid Pigments: Rust set were utilized as “washes” for the tracks.

I then airbrushed some Tamiya XF-57 Buff over the running gear and parts of the lower hull as “road dust”. A very light coating was applied to the entire vehicle.

The AA gun was attached to the turret, and the turret to the hull, and the whole model given a few light coats of AK Interactive Ultra Matt Varnish to seal the whole deal.

In conclusion: while I very much enjoyed the challenge of the earlier MiniArt T-54-1 Model 1947 with its full interior, it was a very time-consuming build. For those with less time, I believe these “exterior only” kits are a great idea. You get fabulous detail in all the areas that you can actually see following completion. If you are looking for a great T-54 kit, you need look no further than the MiniArt range. This kit is HIGHLY recommended for its superbly detailed parts, and excellent parts fit. My sincere thanks to MiniArt for allowing IPMS USA to review this wonderful model kit.

GALLERY

CLUB NIGHT MODELS

Check out our Website gallery for photos taken of models at our monthly meetings

<http://ipmsauckland.hobbyvista.com>



And as usual - check out the IPMS Auckland website as we're trying to keep the content a bit more dynamic. We won't be regurgitating content found on other websites but will provide links to sites we think are of interest to members.

