

PLUS: ALL THE LATEST KITS | ACCESSORIES | DECALS | BOOKS



VOLUME 16. ISSUE 182. SEPTEMBER 2020

REGULARS

P04 - NEWSLINE P06 - COMMENT P65 - NEXT ISSUE PG6 - FINAL THOUGHTS...

REVIEWS

P.10 IN PRINT What books will inspire you this month?

P.12 TRANSFER LIST Choices, choices - which decals will you chose to build something different?

FEATURES

P.14 CUTAWAY WALRUS

Mike Williams displays the interior detail in the Airfix 1:48 scale Supermarine Walrus Mk.I..

P.24 BATTLE OF BRITAIN HURRICANES

Alan Price builds two Airfix Battle of Britain 1:48 scale Hurricane Mk.ls.

P.30 HEINKEL HE 162 CLOSE-UP

Two Heinkel He 162s in the Canadian Aviation and Space Museum, and the Planes of Fame Museum in Chino California.

P.34 LARGE SCALE VOLKSJÄGER

Brett Green adds after-market detail to Revell's 1:32 scale Heinkel He 162 Volksjäger.

P.46 DESERT FELINE Kamil Feliks Sztarbala builds Kitty Hawk's 1:48 scale French Sepecat Jaguar A.

P.56 KICKING THE KIKKA Chris Wauchop reconditions a Fine Molds 1:48 scale Kikka.

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This month's round-up of all that's new in the world of aircraft modelling...

DORA WINGS

www.dorawings.com

DORA WINGS' 1:48 P-43 LANCER

Dora Wings has sent images of box art, marking guide, sprues and a finished model of their forthcoming 1:48 scale P-43 Lancer kit. We will have more details in the coming weeks.



14



BARRACUDA STUDIOS

www.barracudacals.com

BARACUDA STUDIOS NEW RESIN SETS

Barracuda Studios has announced six new products in their line of resin accessories.

Three of these new releases are aimed at the very popular Focke-Wulf Fw 190 in 1:48 scale. The cockpit set is designed specifically for the superb new

tool Eduard kits, but can be very easily adapted to a host of other kits.

The other three sets are aimed at the Hawker Hurricane in 1:72, 1:48 and 1:32 scales. These wheels are accurately sized, proportioned and















IBG MODELS

www.facebook.com/ibgmodels/

IBG MODELS JULY RELEASES

IBG Models has announced their latest aircraft releases, which are both available now: 32002 – 1:32 scale P.11c Fighter in Romanian Service 72518 – 1:72 scale P.11b Fighter in Romanian Service

THE AIRBRUSH COMPANY

www.airbrushes.com

AIRBRUSH COMPANY IWATA AIRBRUSH AND COMPRESSOR BUNDLES

Modellers can save money on an Iwata airbrush and compressor, bundled with LifeColor paints and airbrush cleaners from The Airbrush Company - everything needed to achieve the perfect finish to models. The Airbrush Company now includes the new LifeColor Essentials Paint set in each of their kits.

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03865 Maverick's F-14A Tomcat, 1:48



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04966 Maverick's F-14 Tomcat, 1:72

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hobbycraft.co.uk/brand/revell

COMMENT



TO HELL(ER) AND BACK

Jonathan Mock with a personal reflection on this classic French kit company

ercurial is a word derived from the Roman god Mercury, known for being fleet of foot. Over time it has evolved to mean "subject to sudden or unpredictable changes of mood or mind" and is often used to describe the demeanor of writers, sport stars and performers - people who are brilliant but also prone to not fulfilling their potential. In many ways "mercurial" is exactly the word

In many ways "mercurial" is exactly the word that springs to mind whenever I think of the French kit company Heller.

I recently completed my first Heller kit in ages - decades in fact - when I made their 1/24 Ferguson TE-20 tractor as a 90th birthday gift for my good friend Mr. Hector Hamer, himself a former avid modeller. That kit seemed to sum up Heller and "mercurial" in one box - an apparently off the wall subject that was mostly brilliantly done but with a couple of false steps to trip you up.

But perhaps I need to invoke Dylan Thomas here and "begin at the beginning" to place Heller within their own context and mine.

Formed in 1957 by Léo Jahiel, Heller was initially based in Paris before moving to Trun where they have stayed pretty much since 1963. Their first plastic kit was a 1/100 scale Sud Aviation Caravelle released in 1968 and from there... well, Heller went on to be one of the most brilliantly adventurous and somewhat mystifying kit companies of all time. Mercurial, in fact.

There was barely a subject that Heller didn't dip their toes into - yes like other kit companies they did aircraft, cars and ships etc... but it was the kinds of aircraft, cars and ships that caught the eye, from all manner of exotic French interwar fighters and gothic bombers to classic French cars of the 1930s, roman galleons etc... In fact the more you delve into the history of Heller the more it throws up "well I didn't know they made that" moments, mostly because many were kits that were little seen outside of.

It's indicative of how utterly mysterious this brand was outside of France that up until the mid-1980s I was never aware they made 1/35 military stuff and even more astounded they made 1/72 armour decades ago!

Heller also went their own way in trying to establish their own identity in the face of existing and

a-N



established scales elsewhere where their models would have slotted in nicely - but didn't. Thus while 1/144 was already the norm for airliners, Heller went with... 1/125, a case of almost but not quite. 1/350, 1/600 and 1/700 were already established for ships so Heller chose... 1/400.

Which brings me to my own first encounters with Heller in the very late 1970s. They were a name that kept popping up in the pages of Airfix Magazine and Scale Models but, like so many kit companies at the time, if the local model shops didn't stock them, then that as your lot as a 12-year-old modeller in 1979.

A review of the 1/72 Heller Arado 196A in the October 1979 issue of Airfix Magazine, that described it as a "Rolls-Royce of a kit", made a big impression on me - wow, Heller sounded like something really special! But they continued being just a name - albeit one offering tantalizing riches - until Beatties of Bristol started stocking a handful of kits that same year. I decided to invest my precious and equally mercurial pocket money on their 1/72 Spitfire Vb and upon opening the box at home I was instantly struck at how more upmarket they were than the Airfix and Matchbox Spitfires I'd made. For starters, instead of a ledge of plastic for the pilot to sit on, there was a complete cockpit with instrument panel, seat, stick and rudder pedals, all stuff we take for granted now but back then were something to behold in 1/72. Of course I didn't notice the shape errors or the lack of underwing scallops - my modeling wasn't yet attuned to the niceties of accuracy - but I do remember being impressed at how it all clicked together and just looked so much more detailed and finessed than other kits I'd built. Spitfires or not.

Of course this kind of quality didn't come cheap and the 90p I paid for that Heller Spitfire was almost four times the 25p I was paying for ex-FROG Novo kits down the local high street, and more than double that of the comparable Airfix and Matchbox stuff. I liked Heller straight away, but for the foreseeable future I just couldn't afford them!

Heller's own history took some twists and turns (or Truns). When Airfix were put up for sale at the turn of the 1980s, the then Humbrol/Borden had hoped to add them to their portfolio but Palitoy pipped them to post. So Humbrol bought Heller.

From there on it's perhaps diplomatic to say that over the next 25 years or so, Heller's

relationship with Humbrol was "interesting". Some within the UK operation were rather perturbed when, upon being acquired in the early 80s, Heller told the modeling press they saw themselves as "equals" to rather, than subordinates of, Humbrol - this literally set alarm bells ringing at Marfleet. Humbrol did eventually acquire Airfix in 1986 and Heller effectively handled all production, but more on this later.

Meanwhile, and thanks to the Humbrol deal Heller kits suddenly became more widely available and reasonably priced. From this period I remember making the Vampire, Bloch 152, Fw 56 Stosser, Hurricane II, Me 109G and Me 108 - in fact the latter two were amongst the first models I cut my then-new Badger 200 airbrush on. The 109G, Vampire and Stosser still reside in my display cabinet.

Around the same time I acquired a Heller 1983 catalogue and it was here I really began to appreciate the breadth of their range and many of the quirky aircraft they made like the Caudron 635, Dewotine D.500, Les Mureaux 117... the list goes on but, to their credit, Heller did try and balance the slightly less commercially viable kits with more bankable subjects like Spitfires, 190s, FW190s, P-51s,



P-47s etc... But even here they found space to lob in hitherto untouched variants, like the bubbletop Spitfire XVI (a first), P-47N, Me 109B and others.

One of the oddest - but very welcome - kits from this period was Heller's 1/72 two-seat Harrier T4. Initially released as part of the Bobcat range intended for younger modellers. The model was generally simplified but was eagerly snapped up by enthusiasts who crossed-kitted it with better parts from the ESCI, Hasegawa and Fujimi Harriers while also scratching their heads as to why Heller would chose something as leftfield as a Harrier T4 - I did say they were mercurial.

In the 1980s a number of Heller (and ESCI) kits were rebranded under Humbrol's own label for a time, in fact every time I pass through Shirehampton on the other side of the River Avon I'm reminded of a trip to a DIY shop there with my late father in the mid-80s, being delighted to see they sold kits and snapping up the Humbrol (ex-ESCI) 1/72 Brummbar which still resides (unmade) in the attic. When I started my first job after art college I treated myself to the Humbrol/Heller boxing of the Javelin T3, rather pricey at £2.75 (or so I thought) but at the time but I was earning a heady £45 a week!

From thereon in Heller were pretty much a fixture of the UK modeling retail scene thanks to distribution by Humbrol, the 1990s saw me build a run of their 1/48 kits including their Super Etendard, Mirage 2000, F4U-7 Corsair and Jaguar A.Mercurial of course was always a constant and there is the story of their 1/72 Su-27 Flankers from around 1990. Having seen the real thing at Farnborough that year I bought them as soon as they became

available and on first inspection the kits looked like world-beaters to take on the Fujimis and Hasegawas, sporting fine recessed panel lines and glossy smooth plastic. Alas it was the latter that proved to be a problem - apparently in order to achieve that Beryllium-cast look, Heller gave the spark-eroded mould cavities a coating of sorts that then threw the fit of parts out!

The relationship with Humbrol though was always strained - truth be told Humbrol had long wanted to sell Heller on and concentrate solely on Airfix, but with the all the mould tools effectively being held at Trun it became something of an industrial and political minefield that came to a head in 2006. To tell that story would involve a whole book and is beyond the scope of this column. Suffice to say Airfix were bought by Hornby and went on to new heights, Heller... sort of faded from the UK somewhat. The kits could still be found but things seemed to revert back to the late 1970s again in terms of distribution. Heller themselves were sold to la société Maped (an office stationary company) before being sold again to Glow2B of Germany.

I'm pleased to say Heller is still with us and making new models, which brings me back to that Fergusson tractor. When I say this was the first Heller model I'd completed in decades, it wasn't the first I'd started. I'd wanted to make a return trip to the Stosser in 2006, 30 years on from me first making it, and so bought the latest boxing from Heller. To say it felt behind the times was an understatement. The packaging felt archaic

and lackluster, the hints and tips were

printed in black on dark brown, rendering them next to illegible and Heller's traditional bugbear - poor quality decals - remained unchanged, almost an afterthought. Compared to the heights that Airfix had attained in terms quality, it was all a bit depressing and all my enthusiasm seemed to get sucked out of the project.

So enter the Fergusson which, following a wintry conversation over tea and biscuits, I decided to build for Mr. Hamer to coincide with his upcoming 90th birthday. This was a relatively new tooling so I ordered the kit and was delighted with it. The packaging and instructions were excellent, the quality of the mouldings and overall fit of everything was superb and yet... for the life of me I couldn't get the front axle to fit and after googling the issue found that it was something every builder had stumbled over. It seems Heller moulded the bolt heads on the axle too far in and so if you follow the instructions none of it fits. The solution it to move the track of axles outward (this was a feature of the real vehicle), but you end up with misaligned bolts. The decals, unsurprisingly, were smudgy and out of register ...

But I enjoyed the experience of reacquainting myself with Heller and there are several kits in my collection that have been reignited as project ideas after finding interesting decals sheets for them, the Caudron 635 and Ouragan being notable. Perhaps I'll try and reboot that Stosser again.

Heller - often brilliant, frequently frustrating but eternally (perhaps endearingly) mercurial.

Plus ce change...

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By Richard A. Franks Guide Price £22.95 ISBN 978-1-912932-11-5 224pp softback, 297 x 210mm

> bis month we have another bumper book from Valiant Wings, the story of the Grumman F6F Hellcat, the very successful US Navy WWII fighter. Grumman produced the US Navy's

first successful carrier-based monoplane fighter, the Wildcat and even as the Wildcat was being introduced into service, the company was planning the bigger and more capable replacement, the Hellcat. This book follows the familiar pattern that we have seen

The Grumman F6F Hellcat A Complete Guide to the Famous American Naval Fighter (Airframe and Miniature No. 15)

www.valiant-wings.co.uk

throughout the series and in the recently published Airframe and Miniature No. 14 on the Ju 87 Stuka.

The first section of these books is the Preface, a history of the development of the Hellcat in words and pictures from the early planning days in 1941, a few months before the Japanese attack on Pearl Harbour, to the end of US Navy Hellcat flying in May 1961. We read how the Hellcat was introduced into US Navy service and would be in the thick of the action against the Japanese throughout the war from February 1943. This section continues with where and how the Hellcat was used by other nations. Both the Royal Navy and the French Navy would use the Hellcat. Uruguay used the Hellcat throughout the 1950s, retiring their last Hellcats in June 1960.

Chapter 1 – Evolution describes the development of the Hellcat Prototypes from the XF6F-1 to the final version, the XF6F-6. Mass production of the F-6 version was cancelled in August 1945 due to the ending of the war in the Pacific. Chapter 2 continues with Hellcat evolution during the years of production. Chapter 3 looks at the Hellcats that developed from the Navy fighter for use such as Night Fighters, Drones and Test Airframes.

Chapter 4 is the one that most modellers will concentrate on first as it covers the topic of Camouflage and Markings. As usual Richard Caruana's superb colour profile artwork is

The Fighter Collection's F6F-3 Hellcat at Duxford performing at the May 2007 air show.

SAMPLES FOR REVIEW

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used throughout this section. As well as the artwork, Chapter 4 contains many photos of Hellcats in service showing typical in-service weathering during wartime operations. Towards the end of the chapter we see colourful photos of US Navy Hellcat drones. The final eleven pages cover the camouflage and marking applied to Hellcats operated by the Royal Navy, the French Navy and the Navy of Uruguay. Camouflage and Markings concludes just short of the first half of the book. From this point the book moves away from Hellcat operations to the serious modelling aspects of the aircraft.

Chapter 5 takes a brief look at many of the Hellcat kits that are available. We have twentytwo pages of descriptions of kits from those in 1:72 to the mighty 1:24 Airfix Hellcat. These are not full build reviews of the many kits listed but mainly text describing the contents of the box and how each one goes together and what pitfalls to consider when buying the kit or setting about a build. Each description occupies about a page and concludes with an overall verdict on the buildability of the kit.

Chapter 6 runs to nearly 30 pages and contains several full build kit reviews in all of the popular scales from Eduard's 1:72 Royal Navy Hellcat Mk I/Mk. II to the very impressive Airfix 1:24 kit. John 'Tigger' Wilkes' review of the big Airfix kit extends to seven pages of text and build stage photos showing how the very large box of parts comes together. Build and finishing techniques are described as part of each of the kit reviews. A look through this chapter may help you to select the kit to buy if you have a wish to have a Hellcat model in your collection.

Chapter 7 on Building a Collection always makes interesting reading and viewing. Each page includes an average of three Hellcat line drawings with captions showing how each version and sub-type varied from the last. As well as the line drawings, there are a number of Hellcat photos scattered amongst the pages.

Helicat photos scattered amongst the pages. Chapter 8, In Detail is much more than just a Helicat walk round. There is around 60 pages of super-detailed photos (some in colour) of all parts of the Helicat. As well as the photos with excellent descriptive captions there are many scrap engineering drawings of some of the innards of the Helicat, many of which look to have come from Helicat manuals. Many modellers will be happy to just see good photos of the cockpit interior, undercarriage legs, wheels and wheel wells. There is much, much more for those who would like to add more detail to their Helicat build. As well as the airframe detail, at the end of the chapter we see photos and diagrams of the weapons carried by Hellcats. Firstly, the internal guns and then the selection of bombs, rockets and fuel tanks carried under the wings and fuselage.

As usual the final pages provide long lists of Hellcat kits, accessories, after market decals and books. The list of decals alone runs to almost seven pages! Finally, we find an 8pp fold-out of 1:48 Hellcat plans by Richard J. Caruana, tipped-inside the back cover. From the superb artwork on the front cover

From the superb artwork on the front cover to the excellent plans at the back of the book, this is an excellent reference book. We again congratulate publisher Mark Peacock and author Richard A. Franks on their mammoth efforts that must have been applied to drawing all of this information together into the 224 pages of this book. The value for money is outstanding at a cover price that is less than most of the kits mentioned in the book. A huge pat on the back for the Valiant Wings team.

Thanks again to Valiant Wings for supplying their latest title for review. See specialist stockist stands at model shows (remember them?), or visit the Valiant Wings' web site: www.valiant-wings.co.uk for direct online sales details.

Highly Recommended.

TRANSFER LIST

Written by Alan Firbank.

Euro Decela BAE Hawk In Worldwide Service

1:32

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950

EURO DECALS FROM FANTASY PRINTSHOP

www.fantasyprintshop.co.uk

BAE HAWK IN WORLDWIDE SERVICE 1:32 SCALE **ITEM NO. ED-32128**

At the time of writing, model shops and other less essential retail outlets are beginning to welcome customers again but there is still no sign of a model show happening. Maybe by the time our words are on sale there will be movement in this respect. Many modelling mail order outlets have been doing well during the difficult times and Fantasy Printshop is one company that have been keeping going with new decals sheet releases.

We have another new sheet this month with some great schemes that will look good on the big Revell 1:32 BAe Hawk. The sheet carries the markings for five Hawks with national markings and comprehensive sets of stencilling for each one:

01 BAe Hawk T.1a (F) XX318 based at RAF Leeming in a special scheme to celebrate the 95th Anniversary of No. 100 Squadron in 2012. With the exception of the Red Arrows, 100 Squadron is the only RAF squadron still using the old Hawk. This particular aircraft will celebrate 40 years of RAF service on 24th September 2020. The usual overall gloss Black scheme features the unit's White skull and crossbones badge on the tail and under the centre fuselage. Remembering 100 Squadron's days as a bomber unit, the spine is painted with camouflage colours of Dark Green and Dark Earth with WWII style fuselage codes 95-Y in large Red lettering.

02 BAe Hawk Mk.63 1722 with No. 17 Squadron of the Royal Jordanian Air Force. This Hawk carries a camouflage pattern of Light Stone and Camouflage Desert Sand on the upper surfaces with Light Aircraft Grey undersides.

03 BAe Hawk Mk.51 HW-345 with the Finnish Air Force. The scheme is overall Medium Grev on the upper surfaces with Light Aircraft Grev undersides.

04 BAe Hawk Mk.52 1002 with the Kenyan Air Force. The scheme is that carried by the RAF's Tactical Weapons Unit's Hawks several years ago. A camouflage pattern of Dark Green and Dark Sea Grey was carried on the upper surfaces with Light Aircraft Grey undersides.

05 BAe Hawk Mk.53 TT-5309/'09' with No. 15 Squadron of the Indonesian Air Force. The nominated colours are described as approximate on the instructions as overall Blue-Grey with a disruptive camouflage pattern of Medium Grey applied to the upper surfaces. Matt Black was applied to the nose area of the Hawk.

The standard of production is excellent and stencilling application will keep you busy for a while, using the very good placement instructions. This sheet is highly recommended to those looking for something different for their 1:32 Hawk model.

Thanks to Fantasy Printshop for their latest sheet for review. See their web site for details: fantasyprintshop.co.uk or phone 01208 77772.



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BUILT AND WRITTEN BY MIKE WILLIAMS

OUTANAAV MALDIN GUTANAAV WALD Mike Williams creates a cutaway fuselage to

display the interior detail in the Airfix 1:48 scale Supermarine Walrus Mk.I.



1:48

hen Airfix announced they were to produce a Supermarine . Walrus in 1:48

scale, it took the modelling world by surprise. It is not a type that tops modellers' most wanted lists perennially or an aeroplane that is particularly aesthetically pleasing,

looking rather ungainly with its rearward facing engine and mass of rigging seemingly holding it together.

However, the Walrus was tougher than it looked, being able to withstand the rigours of being launched from a catapult and then landing and taxiing on the rough waters of the Atlantic or Pacific Oceans.

Its original role as a fleet spotter

SKILL LEVEL: Intermediate

SPECIFICATION:

Materials: Injection moulded plastic Availability: All good models shops and www.airfix.com Price: £38.99

BEFORE STARTING: Tamiya Extra Thin Cement Tamiya Extra Thin Cement Quick setting EMA Plastic Weld Tamiya masking Tape Swann-Morton Scalpel No.3 handle with no.11 blades Wilder pointed tweezers Sponge sanders Vallejo Plastic Putty Micro drill and bits Super glue

AIRBRUSH:

Iwata Revolution CR Bartsharp 180

PAINTS USED:

Tamiya AS12 Bare Metal Silver Tamiya XF-1 Flat Black Tamiya X-14 Sky Blue Tamiya XF-19 Sky Grey Tamiya X-35 Semi Gloss Clear Hataka International Orange Hataka Night Black Alclad MilSpec RAF Interior Grey Green





The interior sections were base coated with Alclad MilSpec RAF Interior Grey Green before being offered up to allow the undercarriage attachment points to be drilled into the bulkheads through the fuselage sides.



The main undercarriage leg was dry fitted to ensure it would still sit square and true as well as maintaining structural integrity.

aircraft saw the Walrus being used in many of the early sea battles of WWII, later in the war it would be found patrolling the skies over the English Channel, rescuing downed pilots from both sides and saving hundreds of lives n the process.

◀

The Walrus served throughout the war in theatres as diverse as the Far East in RAAF service as well as the Mediterranean, North Africa and Western Europe. Its ability to monitor fleet movements, attack vessels with bombs and troubling submarines with depth charges before being able to land and pick up downed aircrew all in one mission, proved invaluable right up the wars end.



The cutaway section was carefully marked onto the fuselage with a red sharpie making sure to keep it clear from the edges and also not too straight and even.



Using the red line as a guide, the cutaway section was chain drilled with a 2mm minidrill. It was time consuming but ultimately worth the effort.



With the cutaway section removed, the edges were neatened up with a new blade in the scalpel.

A further dry fit with all the associated fuselage section was made to make sure everything still fitted properly.

With the interior fully painted, detailed with Eduard seat belts and suitably weathered with oils, washes and chipping it could be closed up.

1: 48



The moulded piece for the anchor winch rope was further enhanced with some lead wire from Plusmodel adding some extra bulk to this section within the nose.



Once painted and installed it looked far better then the undernourished kit supplied parts. Note the chipped and weathered interior and seat belts here also.

A clever design for the rear turret ring incorporates a separate moulding of the ring which, when attached and dry, just needs careful removal of the straight joining rib. This is a neat way of overcoming what could be a difficult piece.



Decal applied and instrument panel fitted to the forward nose section. Note the mooring points that would ultimately get damaged and be replaced.

Rudder and elevators painted in the national colours of the Argentine navy; Celeste Blue(X-14 +XF-19) over White

The hatch cover and one piece closed canopy (not being used by me) were used to mask the fuselage openings while the cutaway section was stuffed with foam to protect the interior from overspray.

FFFFF

Using hairspray technique to weather and wear the hull. Over the basecoat of silver was a coat of hairspray followed by XF-1 Flat black before some gentle scrubbing with clean water and a large brush.

"I decided early on that a cutaway might be a nice idea in order to show off that interior detail."



The upper sides of the wings were orange according to the paint instructions; no specific shade was given so I darkened some International Orange using Hataka Orange line lacquers.



After painting of the main fuselage was dry and the sponge masking removed, the cutaway was edged in red as per museum exhibits to highlight the interior.



Mig Oilbrusher "Starship Filth" was applied in dots around the high wear areas around the fuselage section immediately below the engine section before being allowed to dry for a few minutes...

Planning a Start

A relatively low parts count of 147 pieces spread over five mid grey plastic sprues belies the complexity this kit exudes upon inspection of the instructions.

An additional clear sprue holds nine pieces for the canopy and other clear fittings such as landing light.

The detailing as supplied is more than satisfactory throughout, the main fuselage parts are covered in finely moulded rivet details, love them or hate them, there were thousands of them covering the main airframe. The fabric covered areas of the wings and control surfaces and nicely rendered with restrained fabric effect evident.

Notable is the interior detail within the

fuselage, the pilot, navigator and gunner positions are all included despite most of it being pretty much invisible within the finished model. The gunner positions are easily seen as the hatches can be left off along with an opened canopy option exposing the pilot station within. The rest though disappears once the fuselage is closed up, which is a shame as almost all the interior ribs and



Using an old stubby brush, the oil paint was scrubbed into the paint work taking care not to remove too much of it in the process...



Next, using a wider brush lightly moistened with white spirit the oils were blended further to lessen the harshness of their effect...



The final step was to gently blend them with a wide, soft brush.



With the engine pod and struts, undercarriage legs, wheels and tail in place it was starting to come together

1: 48

stringers are included, a textured floor section with cushion panels, the folding seat, gun cartridges, blanket wraps and anchor with associated rope/cable reel are all included.

Open For All To See

To that end I decided early on that a 'cutaway' might be a nice idea in order to show off that interior detail. In fact there is a cutaway CAD rendering illustration on the side of the box which gave me an insight as to what might be With the decals in place and a sealing varnish sprayed, more weathering was applied along the waterline and around the engine using enamels washes from Alclad.

1.0.4

It would have been all too easy to forget weathering the other side because of the cutaway section, but this needs to be done for continuity.

visible. I first separated all the fuselage pieces from their sprues and taped them together to get an idea how and where to make the cut without comprising the structural integrity of the kit and not making life difficult for myself.

The fuselage is made up from a box like configuration with a one piece lower hull, two sides of the fuselage and an upper panel which includes the rear gunner position along with a smaller upper forward panel for the forward gunner position and anchor access point. When fitted later in the build the canopy also forms part of the fuselage structure. I also fitted the two main bulkheads as these would help with holding

everything true and square while I lined up the cutaway area. The first thing I noticed before I started cutting was that the two bulkheads would need some minor modification as these sit exactly where the undercarriage legs would fit on the fuselage section that The missing rudder post for the aerial mast was scratch built from a small length of aluminium tube attached into a 1mm drilled hole. Note the decals applied here too.

would be missing! I drilled through the holes moulded onto the fuselage half where the undercarriage leg fits, then kept on going to enable me to make holes in the correct places on the bulkheads to allow the legs to fit after the cutaway was made. I then had a dry fit with





Carefully drill out each attachment point for the rigging before attaching the wings. These are all noted in the instructions for the AIMS rigging etched set.

The inter plane struts can be left loose until the lower wings have been fed onto them then the floats can go on. They can be secured with sparing amounts of thin cement later.

The rear gunners hatch, main canopy and the upper wing were attached and left to fully cure and harden overnight. Note I attached he engine strut rigging here too.

enamel from Alclad MilSpec range before the details were picked out with various Vallejo Model Color acrylics and a wash was applied to lift the detail and add depth. The metal parts of the interior such as the seat frames, bulkheads and floor panel were light scratched and chipped using a silver pencil and some silver paint on a small piece of sponge.

The supplied decal for the instrument panel was applied and it fitted perfectly over the raised bezel detail before being sprayed with a matt varnish and each dial dropped with clear gloss varnish to replicate the glass faces. With everything that needed

to go inside painted, weathered and finished I could close the fuselage up, everything fitting as advertised and came together with a resounding 'click'. Tamiya extra thin

cement was run along all joins allowing for minor adjustment before it cures and the seams could be sanded gently. Thoughtfully all joins run along natural panel lines aside from the very forward nose section, which required a little more effort to eliminate the join. A few rivets needed carefully reinstating but this was the work of minutes with the fabulous Rivet-R tool from Radu Brinzan.

To Fold Or Not To Fold? The next decision to be made before

> The propeller tips were airbrushed yellow after the black to keep them toned down.

everything taped together and the legs fitted as per the instructions; my fear that it would affect the sit of the model was unfounded as it lined up perfectly. That is something to bear in mind when modifying kits for such things as cutaways or enhancements, make sure whatever you are doing to the kit itself doesn't compromise the design and integrity of the kit parts by routinely checking the fit and alignment.

Cutaway, Cutaway Now

With the knowledge that my idea was going to work, I set to and worked out exactly where and how to cut away the fuselage section to be removed. Using the aforementioned box art CAD rendering as a rough guide, I marked out on the fuselage half an irregular shape with a red marker, making sure to avoid getting too close to the edges or making any sections too weak or vulnerable.

Then began the unenviable task of chaindrilling along the marked line with a 2mm drill bit, before carefully using a new blade to cut between the myriad holes. The cutaway section then popped out and the edges were carefully cleaned up with a new blade and a metal file. A further dry run where the fuselage parts were taped together again with the cutaway section allowed me to see exactly what would be seen on the finished model.

With the cutaway section dealt with I could continue with the model as per the instructions dealing with the interior sections. As the entire innards would be on show I needed to furnish the crew seats with some form of seat belts/ harness, as these would conspicuous by their absence. A set of pre-painted steel seat belts from Eduard were carefully fitted before being weathered in situ with the rest of the interior details. The seat belts looked rather large, more akin to those you find in a WW1 fighter, however the references were checked out and these are correct. The rest of the interior was assembled as per the kit with a minor embellishment of the rope coil for the anchor using some fine lead wire from Plusmodel.

The main interior RAF Grey Green was sprayed using the airbrush ready



The completed engine painted, weathered and ready for installation.

Detail on the rigging attachments, note also the clear parts unmasked here as well as the bombs and depth charges painted and fitted

> The Char completed char model. the a li

choose as there are quite a few schemes to choose from aside from the three included in the kit. Always on the look out for something a little different from the norm I looked out a decal sheet from Xtradecal featuring some more colourful Walruses differing from the Royal Navy temperate schemes. The one that caught my attention was a machine from the Argentine navy, featuring an overall silver finish with a bright orange upper wing, black hull/belly and the standard blue and white tail control surfaces of the Argentine navy.

As I previous alluded to, the elevators and rudder were painted before assembly, receiving a base coat of white primer followed by a mix of my own blue using Tamiya X-14 Sky Blue toned down a tad with a couple of drops of Tamiya XF-19 Sky Grey. The upper wings were sprayed a custom mix of International Orange with a couple of drops of Night Black to knock back the brightness a bit, I used Hataka Orange line lacquers for no other reason than I had them in my stocks and no other orange paint to hand. All other airframe areas needed to be silver as well as other parts like the inter-plane struts, undercarriage legs and wheels hubs which were assembled, sorted and readied for painting in one go. I used Tamiya AS-12 Bare Metal Silver which I decanted from the aerosol can and thinned with lacquer thinners in order that I could have more control over the coverage through the airbrush, this also wastes less paint, so an aerosol can goes a lot further. The belly of the fuselage was Black on the Argentine machines but I figured this would weather and wear quite heavily, so I gave the belly a coat of hairspray direct from the can before airbrushing it with Tamiya XF-1 Flat Black, leaving it to dry for a half an hour or so before gently scrubbing away with clean water and a large sturdy brush. This allows the water to soak through the paint to the hairspray lifting bits of the black paint giving a

parts needed for this option. Also there are holes that need opening up on the fuselage if you want the wings spread. All areas to be modified/adjusted are noted in the instructions with great clarity ensuring you cannot go wrong. I was torn between having the wings folded or maybe even modifying the kit parts to allow one folded, however my fear was that with one folded it might compromise the stability of the finished model and would more than likely topple over. To keep the lines of the aeroplane, I chose the wings spread option and could therefore fix the upper wings together to make a one-piece unit that cold be painted, decaled and weathered in situ and fixed later to the lower wings.

construction continues is whether you want

the wings folded or not, as there are differing

Power Plant

Attention now turned to the engine pod and its associated mounting struts. Now this was a very clever piece of design and engineering by the Airfix team! The engine is actually offset to the left by 3 degrees on the real aircraft (I believe it is to counteract the torque of the engine and propeller) and this is cleverly designed into the moulding to ensure everything sits at the correct angles. The engine unit comprises central core section, around which wraps three cowling pieces followed by the front and rear strut units clicking into place almost without need for glue, they in turn pull everything into alignment when seated into their respective mounts on the top of the fuselage. Like I said: Clever!

The engine itself is somewhat simplified lacking ignition wires or mounts but looks good once assembled, painted and weathered with the excellently moulded two piece, four bladed propeller.

Tail Feathers

More clever design came to prominence when assembling the tail planes, elevators and rudder. A one piece tail plane slots into the tail, a separately moulded rudder is fitted after the elevators which can be set at any desired angle should you wish to pose them. I opted to leave the elevators and rudder off to paint them separately given my chosen scheme. The support struts for the tail planes can be fitted later and will slot into place not requiring glue such is their perfect, excellent fit.

Colouring In

It was time to start figuring out what to paint and in what order and also which scheme to



"A relatively low parts count of some 147 pieces spread over five mid grey plastic sprues belies the complexity this kit exudes upon inspection of the instructions."

 suitably worn and chipped effect to the belly in a random manner.

Markings and Washes

A coat of Tamiya X-35 Semi Gloss Clear

varnish was airbrushed on to give a smooth uniform finish over the entire model for the decals to settle onto, which they did perfectly. When the decals had dried, a second coat of X-35 was sprayed on to seal them in and protect the paint and markings from the aggressive thinners in the washes and Oilbrushers I was to use for the weathering processes. A pin wash was applied over the main airframe to enhance the panel lines and

.



1: 48

rivet details using a pre-made wash from the Alclad Hogwash range before some more localised washing and staining. A fantastic shade called 'Starship Filth' in the Mig Oilbrushers range is one of those weathering products that is a mainstay in my toolbox now, as it is a perfect way of adding an oily, dirty, grimy look to most areas and can be applied as heavily or as restrained as you like such is its versatility. These, along with some Humbrol Weathering Powders were used to add some dirt and stains along the waterline and around the floats under the wings. I could not find any reference photos of the Argentine machines so I used other photos and online searches as well as a little artistic license when applying the weathering.

Rigging

That seven letter word that strikes fear into a lot of aero modellers (me included!) with that inherent complexity that seems to manifest itself when you start to look at the work involved. In the past I have used the readily available rigging thread that can be bought from many specialist model retailer; Infini, Aeroclub and Uschi being three of the main protagonists. Now, these are excellent tools and ways of representing the rigging wires so ubiquitous on biplane models, but do require a modicum of experience and deft tweezer work and not least the ability to work with superglue and its inherent speed of working.

I found my self searching on the internet for any other ideas or advice for rigging such a complex aircraft like the Walrus and found a bespoke set for the Airfix kit by AIMS models (48PE009 from www.aimsmodels.co.uk) which I duly ordered.

Before attempting to fix the wings and the rest of the model together, I followed the instructions from the AIMS rigging set to ensure all the attachment points had their holes drilled out. Some are obvious thanks to Airfix's moulding and some are not there at all, as noted in the AIMS set. I drilled them all out with a 0.7mm drill before assembling the wings and struts etc. It is far easier to add the rigging wires around the engine pod and struts BEFORE affixing the wings to the fuselage as access will be limited if you attempt it afterwards.

Regarding the way things go together for the wings and their associated struts; follow the Airfix instructions as it works perfectly. So, attach the top wing to the engine pod struts first and use a good strong glue (I used Tamiya White topped cement) and leave them to fully dry out before offering up the lower wings leaving the main inter-plane struts loose to allow them to feed through moulded holes in the bottom wings then carefully apply liquid cement. My accompanying photos hopefully make this a lot clearer than my words here.

The rigging wires are relatively straightforward to attach, they have a certain amount of 'give' in them allowing them to be carefully coerced into place without bending them out of shape. Just take your time and follow the AIMS diagrammatical instructions and you'll not have any issues rigging the Walrus.

On Finals

The wheels, guns, engine, canopy, stores and aerial wires are all simple enough to paint and

install, all fitting as advertised. The wheels have moulded in flat spots on the tyres adding a neat 'weighted' look to sit of the model. The guns don't have very positive attachment points, so a dot or two of superglue was simply applied to hold them into place.

I did manage to snap off the two mooring points on the very front of the nose, so I drilled out their attachment points before fixing in a couple of dressmakers sewing pins which were the correct size and fortuitously the right shade of silver. The engine fixed into place positively with little glue needed. One somewhat glaring omission was the attachment post on the rudder for the aerial wires to fix to; oddly, it is shown on the final page of the instruction sheets where the rudimentary rigging diagram is printed?! I simply drilled out a hole atop the rudder and fixed in a small piece of metal tube from Albion Alloys before fixing the rudder in place and adding the aerial wires from Infini grey elastic thread. After I unmasked the canopy and fitted the tail wheel into place I could finally call the beast finished.

FINAL VERDICT

A thoroughly enjoyable, if a little involved, model of an ungainly yet ubiquitous aeroplane. Despite its somewhat fragile appearance, the finished model is quite solid. The rigging is possibly the make or break of this model and could put off a lot of modellers, me included. I am very pleased I tackled this model though, even if I did make things slightly more tricky with my insistence on making a cutaway fuselage. Straight from the box you will be gifted with a fantastic model which builds with ease thanks to the careful design and moulding by Airfix, though it is of course wide open for embellishment should you feel the need to go all out.

BUILT AND WRITTEN BY ALAN PRICE

Alan Price builds two Battle of Britain 1:48 scale Hurricane Mk.Is from the Airfix kits.

BATE OF BRI MALESS



SKILL LEVEL: Beginner

1:48

SPECIFICATION:

Airfix Hurricane Mk.I Scale: 1:48 Kit No: A05127A/A05129 Materials: IM Available From: Airfix Price Guide: £22.99

BEFORE STARTING:

Humbrol Liquid Poly Tamiya Masking Tape Sprue Cutters Tweezers Swann Morton No3 Scalpel & 10A Blades Plasti-Zap Cyanoacrylate Glue GSI Creos Mr Cement S GSI Creos Mr Surfacer 500 Microscale Micro Set and Sol Decal Solution Microscale Micro Kristal Klear

PAINTS USED: Microscale Micro Gloss Microscale Micro Flat Johnson's Klear Tamiya Color Acrylics: X- 27 Clear Red X-25 Clear Green XF-7 Flat Red XF-69 NATO Black XF-64 Red Brown XF-71 Cockpit Green X-11 Chrome Silver XF-82 Ocean Grey 2 GSI Creos Mr Aqueous Colour: H072 Dark Earth H073 Dark Green H074 Sky (Duck Egg Green) H011 Flat White H012 Flat Black H413 RLM04 Yellow Humbrol: 33 Matt Black 34 Matt White 11 Silver 56 Aluminium Flory Models Wash: Dark Dirt

AIRBRUSH USED : Iwata HP-B Plus & HP-BH

ERENCES

On Target Special 70th Anniversary The Battle of Britain, Authors Peter Scott & Gary Madgwick, The Aviation Workshop Publications Ltd, ISBN 978-1-904643-36-1 Hurricane R4118, Author Peter Vacher, Grubb Street Publishing, ISBN-13 9781906502737 Battle of Britain Combat Archive Volume 5, Author Simon W Parry, Red Kite, ISBN 978 1 906592 36 3

the mainstay of Fighter Command during the Battle of Britain. The Hurricane has often been seen as the poor relation to the Spitfire but in terms of manoeuvrability the two aircraft were fairly well matched. Where the Hurricane lost out to

the Spitfire was in its ability to climb, its critical altitude being lower than the Spitfires meant it was less well equipped to take on the Me 109s flying above the bomber streams. Playing to its strengths, the RAF deployed the Hurricane mostly against bombers where its stable gun platform and concentrated cone of fire proved to be of good use against them.





The cockpit is very well detailed but it is not easy to assemble. I found it best to assemble it onto the completed wing & undercarriage bay.

The seat benefits form a decent seatbelt, in this case an Eduard Steel one.

For this build I was spoilt for choice with markings, I had amassed a large variety over the last few years and I really couldn't decide which aircraft to build. Having two Airfix Hurricanes in my collection, I decided the best option was to build both! So we have two very different aircraft presented her in this article.

The first Hurricane is P2923 VY-R from 85 Squadron, based at Debden during the summer of 1940. The Squadron also flew from the Castle Camps satellite airfield during this time and we have a number of excellent photos of P2923 taken at this airfield. P2923 was flown by Flight Lieutenant Richard Hugh Antony 'Dickie' Lee, who, aged just 23 already had 12 claims to his record. Lee was lost with his aircraft on the 18th of August in a late afternoon combat. Lee was last seen some 20 to 30 miles out to sea chasing enemy aircraft. No trace of Lee or his aircraft were ever found. The model will represent the aircraft as it was when Dickie Lee last flew it. The second build is R4118, which amazingly is still flying today. Brought back from India in 2001 and fully restored by Pete Vacher and his team, R4118 is a regular on the UK airs how circuits. During the Battle of Britain, R4118 was UP-W with 605 Squadron based at Croydon. This aircraft was flown by a number of famous Battle of Britain pilots including P/O Bunny Curran, P/O Bob Foster, P/O Jock Muirhead and P/O Archie Milne. The aircraft was flown right through the most intense parts of the Battle, seeing extensive action. The model will represent R4118 as it might have been in September 1940.

The Build

For the original series I used the Italeri kit. This is not a bad kit but it is quite a lot of work at times, mainly due to the poor fit of the engine and cowlings.

The new Airfix kit is superb. I had already built one of them so knew how well detailed

it was. I decided to add a little extra detail to these so bought the Eduard Brassin exhausts and wheels along with Eduard Steel seat harness sets and Yahu instrument panels.

The build process starts conventionally with the cockpit, and what a cockpit! Airfix gives us a full set of interior framing replicating the interior of the Hurricane in great detail.

Assembly is complex and care needs to be taken to read the instructions here to work out how everything fits. I departed slightly from the instructions by assembling the entire undercarriage bay into the lower wing then building the cockpit interior on to this, this seems a much more logical way to do things. Painting is fairly simple, aluminium for all the framing and seat, interior green for the fuselage interior. The undercarriage bay should be aluminium too so this was painted at the same time. A thin black wash was run over everything before adding the Yahu instrument panel and Eduard seat belts. A coat of Microscale Flat then gave the interior its final finish. The dials on the instrument panel were picked out with a drop of gloss varnish to give them a glazed look

The wing has to be completely assembled before attaching the fuselage so with the cockpit complete I added the upper halves of the wings. The landing lights were painted and installed at this time too. The fuselage halves were then glued together and the entire fuselage dropped in place over the cockpit

Before the fuselage can be attached to the wing/cockpit assembly, the upper wing surfaces must be glued in place.

1: 48



Here the undercarriage bay can be seen, this has been painted aluminium along with the interior of the radiator housing.



This is the completed cockpit; the entire fuselage fits over this assembly. Just the instrument panel is fitted to the fuselage.

interior. It was at this point I decided that I didn't like the Airfix raised detail for all the fasteners around the cowlings and gun access panels. This sort of raised detail seems to be quite in favour at present, Tamiya used it on their Spitfire and Airfix use it on several of their recent kits. I'd recently built the Airfix Spitfire XIV and removed the raised detail, replacing it with engraved details using a Beading tool and this looked much better so I did the same here. This was not an easy job and would have been a lot easier had I done it before assembling the kits! However, I think the end result looks much better so it was well worth the effort. Progress moved at a pace now, these kits fit quite well so there was only a little effort required to clean up the seams. As usual I filled over all the seams and sanded then back, this does minimal damage to the shape as you will remove less plastic this way. After assembling the tail surfaces a test fit showed rather large gaps between the top of the fin and the rudder and the elevator mass balances and the tail wings. Strips of plastic card were glued to the fin and tail wings, and then sanded back to

remedy this. With the control surfaces glued in place this meant that construction was nearing completion. After giving the model a good clean up, the wing tip navigation light were attached along with the landing light covers. The gun sight was painted and fixed in place then the windscreen was glued to the fuselage.

The rudder is fitted with the control horns and the fuselage has the locations where the control cables should be fitted so these were replicated using some micro brass tube. There were two additional jobs to do for P2923, first this aircraft was fitted with exhaust glare shields and these are not provided in the kit so I made some up from 0.25mm plastic card and attached these to the fuselage. The position is already marked on the kit by a line of rivets just ahead of the cockpit, either side of the fuselage. The second job was to add the rear view mirror visible in the photos, this was made from a plastic card scrap, attached to the top of the windscreen.

The models were now prepared for paint, on each the cockpit, radiator, wing lights and canopy glazing was masked along with the undercarriage bay. The windscreen framing was given a coat of Interior Green prior to priming. Both models were then primed using a Mr. Hobby Mr. Surfacer 1000 aerosol.

Colours

P2923: For this aircraft, as already mentioned there are a number of good photos available showing both sides of the aircraft. However, I found that Wingleader's Battle of Britain Combat Archive No. 5 had an additional photograph of the aircraft taken almost headon that I had not seen before. Added to this, aviation artist Mark Postlethwaite sent me a photo showing the aircraft in almost plan view. as it banked in to land. The photos show some interesting details. Firstly, in common with other 85 Squadron aircraft at this time, the underside camouflage was extended up the sides of the nose and over the wing leading edge. In this case the paint appears to have been sprayed as it has a soft edge. On the rear of the fuselage, the underside paint come on to the sides slightly. On the photo showing the aircraft from the front we can see that the wing leading edge inboard of the port guns does not have



The fuselage has to be painted inside the cockpit area before the two halves are glued together. Note that here the original Airfix raised fastener detail is still in place.



Fit of the fuselage to the wing is good but I spent time carefully adjusting the fit to ensure it went down perfectly, requiring no filling and minimal sanding.

the underside colour painted on it but appears to be a dark colour which extends down onto the underside of the wing - what is going on here? Even more confusion comes from looking at the overhead shot where it appears that this dark paint has been applied inboard of the guns on both wings. I think what is likely is that the aircraft was gradually repainted and that the photos show the progression of the new underside paint rather than this being repainted in a dark colour. This being July 1940, the colour being used is anyone's guess, official 'Sky' was not available at Squadron level so the aircraft were probably painted in some locally mixed colour. I couldn't decide what colour to use so in the end I used Sky on my model.

There is evidence of repainting on the port side of the fuselage, around the 'R' on the squadron code letters and along the lower edge of the fuselage. The camouflage pattern (of Dark Green over Dark Earth, which is to the 'A' Scheme) is difficult to make out on the port side, possibly due to extensive repainting. The overhead shot shows what appears to be two gas patches, one on each wing and possibly one larger than the other?

The markings for this aircraft use large size squadron codes which differ slightly on each side of the fuselage. Aviaeology provided these on their 'Vital Storm Part I' sheet. The roundels were all from Xtradecals sheets however I could find no roundel with the correct size yellow border, I did have the correct size for the red/ white/blue part of the roundel so I decided to mask and spray the yellow then apply the decal. It's interesting to note that the yellow appears to extend onto the underside and is not cut-off as is often shown in cases where the yellow border is so large.

As this aircraft had seen quite a lot of service it would need to look fairly grubby as in the photos, however the paintwork did not appear to be worn or chipped badly, possibly due to the repainting. This repainting probably obliterated much of the limited stencilling applied to these aircraft.

One final puzzle remains for this aircraft – what colour was the prop spinner? There are a number of theories; the most common is that it was red with white or grey bands. Others suggest black with yellow or green bands. After careful study of the photos all I can say is that I can come to no conclusive answer. However, on balance I do think it was probably black. In the end I did two props, one black and yellow, and the other red and white just to see which looked the closest. I still favour the black and yellow. Note that this aircraft was fitted with a Rotol prop.

R4118: The preserved aircraft is not a good starting point for the model. The aircraft has been preserved with changes made over the

years, for example it has exhaust glare shields which were probably fitted when it moved to 111 Squadron after the Battle of Britain and was involved with night fighting. It also is fitted with IFF equipment which of course was not fitted until late 1940 so is not period correct for a Battle of Britain model. The aircraft was built by Gloster in summer 1940 and it's known that other aircraft in this batch were delivered with markings in the bright, pre-war colours. R4118 sports these colours today. It's also likely that the aircraft was delivered with the correct official Sky paint for the underside, Glosters were advised to use Sky on the 11th of June and R4118 was not delivered until mid August. Upper surfaces are the standard Dark Green over Dark Earth to the 'B' pattern. Stencilling would be standard Gloster applied, as on R4118 today.

Airfix provide the correct Squadron codes, UP-W but for some odd reason only included a set of dull colour markings. Handily Xtradecals provide all the correct colour roundels. This being September 1940, under wing roundels would have been applied but probably in the correct dull colours that would have been available at the Squadron. The fin markings were a problem, checking the dimensions of the Xtradecals stripes, the scale 9 inch ones were too narrow, and they were only 6mm instead of 7.5mm. I decided to mask and spray the



Wings are a simple affair though the centre section has to be painted to match the cockpit interior.



P2923 needed exhaust glare shields, these were made up from thin plastic card stock.



Almost ready to paint, everything sanded down and masked ready to go.



After priming the panel lines were preshaded. The underside was then painted Sky.

1: 48



For P2923, I had to paint the yellow border, the correct scale size was worked out and masks cut with a DSPIAE circle cutter.



The hard borders were then softened carefully blending the camouflage colours. Note the 'R' has been masked in preparation for applying the newly painted areas.

P2923, the wavy edge to the camouflage

was made up with masks cut from Tamiya

roundel was masked and painted. When

this had dried the yellow was masked over

tape. Once the painted underside had been

masked, on P2923 the yellow for the fuselage

while the camouflage was applied. The upper

Dark Earth and H73 Dark Green. After

went over the demarcation with the

removing the wavy edge masks, I then

airbrush, feathering in the colours until

I achieved the look I was after and that

camouflage was applied using H72

red and white and then cut down one of the Xtradecal 12 inch blue stripes to fit. As R4118 was almost new in September 1940, the aircraft would be reasonably clean and tidy but showing use in terms of exhaust stains and general dirt around the airframe. R4118 was fitted with a De Havilland propeller.

On With The Colours

After preshading the panel lines on both model I started with the undersides airbrushing on several coats of Mr. Hobby H74 Sky. For

The finished Hurricane P2923.



Having painted and masked the yellow I was then able to freehand the camouflage pattern. Note the hard borders between the Sky and upper surface colours at this point.



New paint applied the camouflage was suitably distressed. Wing walkways have been (incorrectly) painted here.

I felt reflected the photographs. Additional masking was required where the 'R' was to be applied on the port side to replicate the repainting. For this I used H330 Dark Green – the post war RAF colour, to replicate fresh paint.

R4118 was camouflaged in a similar but simpler manner, with only the only additional work being required to create the red and white for the fin markings.

Both models had the wing walkways masked and painted dark grey then the paintwork was distressed using Artool masks and numerous shades of first lighter and darker camouflage

Issue 182 - www.modelairplaneinternational.com 29

The finish of Hurricane R4118 was finished in a simpler scheme.

 colours then browns and greys to simulate dirt build up around the walkways and gun access panels. A coat of gloss varnish was then applied to prepare the models for the decals.

Decals were mostly Xtradecals and some Aviaeology; all went on without trouble using Microscale setting solutions. After sealing the decals with a further coat of gloss, I then applied a wash to the panel lines with Flory Models Dark Dirt. Exhaust stains were then applied using the airbrush and shades of grey and brown. After a further coat of gloss, oils were then used to create various stains around the airframes. The superb Eduard Brassin wheels were painted along with the undercarriage. This is well detailed and the only extra I applied was the brake pipes on the inside of the main gear doors using 0.4mm lead wire. The Eduard Brassin Exhausts were painted with Alclad II ALC-101 Aluminium then I used ALC-113 Jet Exhaust to create the burnt look of the exhausts. After attaching the undercarriage, the models were given their final flat finish. I then removed the remaining masking before fixing the last parts in place. An aerial lead was added using elastic line and finally the canopies were attached in the open position.

These two models represent very different Hurricanes and just go to show the variety in markings that are available. I really enjoyed these builds but I've still got a lot of Hurricane markings left for potential future projects.



The decals were taken from a variety of sources. Note that war time dull red and blue have been used for the markings on P2923 as opposed to bright colours on R4118







Here the results of the weathering and chipping can be seen, note also the wing walkway has been corrected. Additional chipping was applied over this to give age to the wear.



On the underside, some airbrush staining was applied then later additional work was done with oils to blend this in.

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FULL-SIZE

)SE-UP



Partly completed Heinkel He 162 fighter jets sit on the assembly line in the underground Junkers factory at Tarthun, Germany, in early April 1945. The huge underground galleries, in a former salt mine, were discovered by the 1st U.S. Army during their advance on Magdeburg. (AP Photo).

IN DETAIL - MESSERSCHMITT BF 108 TAIFUN





1. The aircraft is in good original condition. The upper surface colour seems to be consistent with RLM 82 Bright Green. Lower surfaces appear to be a good example of the late-war greenish "Sky" shade, sometimes referred to erroneously as RLM 84. 2. Cordite stains from the 30mm cannon may still be seen on the forward fuselage. The red arrow was a common decoration on operational He 162s. 3. Many components of the He 162 were made from wood, including the wings. The panel behind the canopy is plywood too, as may clearly be seen under the flaking paint. In this view, we can also see that the Perspex canopy and windscreen are screwed in place over the top of the dark canopy framing. 4. A close-up view of the windscreen. This may be a non-original replacement.

Alexandra in a state of the sta

The Planes of Fame Museum in Chino California also holds a Heinkel He 162 in its collection.

FULL-SIZE













5: Vertical tail surfaces. This Hakenkreuz is most likely a new addition - the original was almost certainly painted out when the aircraft was captured – but the Werknummer is probably original. 6: Detail view of the plywood rudders and metal trim tab. Note the bare timber showing under the peeling paint. 7: A good view of the jet intake and the smaller scoop on the nacelle. The bright blue is not a genuine camouflage colour, although the more subdued shade on the engine nacelle may be wartime RLM 76 Light Blue. 8: The business end of the BMW 003 engine.

BUILT AND WRITTEN BY BRETT GREEN

LARGE SCALE VOLKSJ

Brett Green adds after-market detail to Revell's 1:32 scale Heinkel He 162 Volksjäger.



y 1944, as Allied bombers pounded German industry and cities around the clock, and as available natural resources were rapidly dwindling, it was obvious

that desperate measures would be taken to mount an effective defence and extend the war in Europe. Many expedient emergency weapons were suggested, but one of the rare examples to reach operational status was the Heinkel He 162.

The specification for a cheap, easy to build

"people's fighter" was issued by the Ministry of Aviation, the Reichsluftfahrtministerium or RLM, on 10 September 1944.

In the face of heavy competition, the Heinkel He 162 was chosen for this critical role. The first prototype took to the air on 6 December 1944, less than 90 days after the winner of the competition had been announced.

The Heinkel He 162 employed a high percentage of non-strategic materials and could be assembled by relatively unskilled
SKILL LEVEL:

Beginner

SPECIFICATION: Revell 1:32 scale Heinkel He 162 A-2. Kit No. 04723

ACCESSORIES USED: Fritz Decals Special Detailing Set - Heinkel He 162A-2 Part One Aires Heinkel He 162 A-2 Detail Set. Item No. 2033 CMK Heinkel He 162 A-2 Salamander Interior Set. Item No. 5009 Airwaves Heinkel He 162 Detail Set. Item No. AES32008 Quickboost Heinkel He 162 Gun Barrels. Item No. QB 32 Scale Aircraft Conversions He 162 A-2 Landing Gear. Item No. 32063

TOOLS AND MODELLING PRODUCTS USED: Tamiya Extra Thin Cement Revell Contacta Cement Selley's Super Glue Zip Kicker (super glue accelerator) Tamiya Masking Tape Invin Clamps Irwin Clamps

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PAINTS AND FINISI-IING PRODUCTS USED: Tamiya Acrylic Paints – X-18 Semi-Gloss Black; XF-1 Flat Black; XF-2 Flat White; XF-4 Flat Red; XF-63 German Grey; XF-64 Red Brown. Gunze Acrylic Paints – H417 RLM 76 Light Blue; H304 Olive Drab; H422 RLM 82 Light Green. Tamiya Aerosol Paints – Fine White Primer; AS-5 Light Blue (Luftwaffe); AS-12 Bare Metal Silver; TS-49 Bright Red; TS-14 Black Future; Elooc Polish Future Floor Polish Testor's ModelMaster Flat Clear Lacquer Finish Tamiya Weathering Master Set A



There are plenty of update and detail sets available for Revell's Volksjäger from Aires, CMK, Airwaves, Scale Aircraft Conversions, Quickboost and more.



Revell's sidewalls have raised detail moulded in place. This is not bad at all.



One basic cannon bay is provided. The ejector seat backrest and moulded-on harness leave something to be desired though.



The kit fuselage interior was prepared for Aires' resin enhancements by first grinding off the raised detail with a Dremel motor tool. Take your time with this job, taking extreme care to remove enough material but not to break through to the outside of the fuselage!



Before proceeding to paint the resin cockpit parts, they were test-fitted between the fuselage halves. The fit was excellent with no adjustment required.



Each cockpit sidewall was attached to the fuselage interior with a few spots of super glue. The raised detail here is all cast directly onto the main sidewall parts - remarkable.

labour. The wings, tail planes and nose cone were all of wooden construction. The production version was powered by a single BMW 003 jet engine. Armament was either two 20mm MG151:20 or two 30mm MK108 cannon mounted in the forward lower fuselage. Thanks to its light weight of 2,800kg, the He 162 was capable of a top speed of 839 km/h at 6,000 metres, with short bursts of more than 900 km/h possible with use of emergency thrust, making it the fastest jet fighter of the Second World War.

Although it was anticipated that the He 162 should be a simple design capable of being piloted by Hitler Youth volunteers, it was in fact only suitable for experienced pilots due to its very light and highly responsive controls. It was therefore allocated to a regular Luftwaffe unit.

The Heinkel He 162 A-2 entered service with I.JG 1 in February 1945. II.JG 1 also started converting to the He 162 from its Focke-Wulf Fw 190s in April 1945. Although a number of training and operational sorties were undertaken, only a handful of enemy victories were claimed. On the other side of the equation, 13 He 162s and ten pilots were lost, mainly due to flameouts and structural failures.

The Heinkel He 162 was a remarkable achievement. It met most of its objectives, being cheap, easy to build from amply available materials, fast and entering service in an amazingly short period. In the end though, it was the haste at which it was pressed into service combined with a lack of experienced pilots that prevented further success for the type.

Revell's 1:32 scale Heinkel He 162 A-2

Revell's 1:32 scale Heinkel He 162 comprises 87 parts in coloured injection moulded plastic on four sprues, and 4 clear parts. The fuselage, wings and tail planes certainly capture the distinctive lines of the Volksjäger.

The Heinkel He 162 was a simple aircraft, and the relatively small number of kit parts reflects that simplicity. However, this does not imply any serious compromise in detail. The kit includes a BMW 003E engine, positionable clamshell engine cowling doors, a reasonably detailed cockpit, a gun bay with poseable access panel, and wheel wells packed with structural features. The gear legs are nicely rendered with brake lines moulded in place. The wheels are outstanding too.

The quality of the exterior surfaces is also very good. Many of the major parts on the He 162 were wooden. These areas, including the nose cone, the main section of the wings and the tail planes, are accurately depicted smooth and featureless. Metal sections have fine panel lines and some rivet detail. I particularly like Revell's reproduction of the simple hinges on the He 162. The deep cannon troughs, continuing through to separate parts for the cannon barrels inside the fuselage, are also noteworthy.

The only exception to this rule is the rear cockpit bulkhead. This has been moulded as a single part including the back of the ejection seat, its cushions and harness straps. Frankly,





Aires' gun bay is a big improvement, with an open shell ejection chute and a separate cannon breech (yet to be fitted). Detail on the resin coaming, crash bar and rudder pedals is finer too.



The main undercarriage casting is a spectacular chunk of resin. Much of the cabling and structural detail is cast in place on the main part, but an additional 16 resin parts put the icing on the cake. Plastic shims have been glued to the edges of the front and rear bulkheads to close gaps between the resin parts and the plastic of the fuselage.



The cockpit interior received a base coat of Tamiya acrylic XF-63 German Grey. The detail parts were then picked out in Vallejo white acrylic paint applied with a fine brush.



More detail painting followed, this time with cables, switches and handles picked out with yellow and red Vallejo acrylics. The painted interior was then sprayed with several coats of Future floor polish before a thin dark oil wash was applied.

it looks a bit half-hearted compared to the detail on most of the rest of the model.

Ejector pin marks - those raised or recessed circles usually seen in various locations on kits - are a perennial challenge for kit manufacturers. They are an unavoidable by-product of the injection moulding process, but Revell has cleverly designed the kit so that the marks will not be visible once the kit is assembled. The usual areas that you would expect to see ejector pin marks, including the inside of the big engine cowlings and the gear doors, are completely unblemished. There are a few ejector circles on the inside of the forward fuselage, but even these have been located away from the moulded-on sidewall detail.

The only noticeable problem that I can see with the surface is some sink marks on the outside of the forward fuselage, corresponding to the position of the interior structural detail. Although they are theoretically imperfections, to my eye they give this area the illusion of stressed metal. If you don't like it, a few minutes with putty and a sanding stick will eliminate these sink marks.

The transparencies are very thin, beautifully clear and free of distortion. There is a two-part canopy, a gunsight and the small window in the forward wheel well.

Construction

Over the years I had accumulated a large number of updates and accessories for this kit. These included not one, but two cockpit and wheel well update sets from Aires, a resin cockpit from CMK, a replacement seat and colour photo-etched harness straps from Airwaves, white metal replacement landing gear from Scale Aircraft Conversions and more.

Even before I cut the first part from Revell's sprues, I had to decide what to pick from this mountain of after-market.

My choices were the comprehensive Aires upgrade combined with the colour photoetched parts from the CMK cockpit, plus the white metal landing gear. The first step was to grind off all that nice detail moulded to the cockpit sidewalls to allow the Aires resin parts to fit. This was achieved with my Dremel motor tool and a grinding attachment. Do take care to remove enough material from the sidewalls, but don't go overboard otherwise you can easily break through to the outside of the fuselage. That would really ruin your day!



Aires' photo-etched parts are nickel-plated metal, but CMK's fret ncluded with their resin update is pre-printed in colour. I used the CMK photo-etch (produced by Eduard) with Aires' resin.

I sincerely believe that spending ten minutes test-fitting will save you hours correcting problems further down the track. I therefore made sure that the sidewalls would fit by tacking them in place with Blu-Tack, then adding the cockpit floor, nose gear bay and rear bulkhead before taping the fuselage halves together. No gaps, no steps, no worries. The fuselage was disassembled again and the resin cockpit sidewalls glued into place.

The white metal SAC nose gear was mated with Aires' resin front gear bay parts, then the forward bulkhead was glued to the cockpit floor. The open gun bay and the instrument panel sub-assembly were also glued together at this time.

A reasonable amount of nose weight is needed to avoid tail-sitting. I took two fishing weights and flattened them with a small hammer, cutting about a third off the bottom before gluing one to each side of the inside of the nose, taking care to make sure that they did not foul with each other or with the front landing gear.

The cockpit interior was painted RLM 66 Black Grey with details picked out using Vallejo acrylic paints, but I decided to finish the ejection seat in bare metal with tan coloured cushions to lend a little variety.

Aires' main wheel bay is an incredible piece of resin casting. I found that I did not

The same painting and weathering techniques were used on the cockpit floor and rear bulkhead.

have to remove the entire casting block – just the excess extending beyond the edges of the main part. Once the 16 additional resin parts are added to the basic tub, the bay is incredibly busy and authentic. Assuming that time would not have been wasted painting internal surfaces of such a rushed manufacturing job, the main gear bay was painted with Tamiya's AS-12 Bare Metal Silver, with details in yellow and blue Vallejo acrylics and a generous wash of thinned dark oil paint.

I spent around two days

Stencils from Fritz Decals and Airscale were applied to the cockpit sidewalls while before the gloss coat was oversprayed with Testor's Clear Flat Lacquer. The yellow cabling really pops out over the dark grey base colour.

"The Heinkel He 162 was a simple aircraft, and the relatively small number of kit parts reflects that simplicity."

painting and weathering the cockpit and the main landing gear bay, which was well time well spent.

By comparison, the balance of basic construction flew by. The cockpit was trapped between the fuselage halves and they were glued together. The wings and tail planes were added at this stage too, but I did not add the engine assembly quite yet.

The painted cannon bay was fed into the fuselage through the big undercarriage hole and secured against the back of the cockpit

> CMK's pre-painted instrument panel was sprayed with a coat of flat lacquer, and the instrument dials were brushed with a glossy coat of Future floor polish before they were brought together.

The gun bay looks great with nothing more than a coat or silver paint and an oil wash.

CMK's colour photo-etched harness was weathered by selectively spraying it with a thin mix of Tamiya's XF-1 Flat Black and XF-64 Red Brown. The back cushion and headrest were dirtied up with a dark oil wash.

A little extra time spent painting the details in the wheel well is definitely worthwhile. Most of this detail will remain visible through the wide opening of the gear bay doors.



Here, the cockpit floor and rear bulkhead have been glued to the starboard fuselage interior. Note the squashed lead fishing weight snuggling in front of the front landing gear. The ejector seat is not glued in place. It has just been slid down the rails to check that it does not foul with any of the cockpit parts.



The cockpit tub was trapped between the fuselage halves. The gun bay and the wheel wells were not fitted quite yet.



The wings and tail planes are simple in the extreme. They are made up from eight parts in total.



Revell's engine is pretty basic. Extra detail might be added or a replacement is available from Aires if you wish to pose the cowl hatches open. In this case, however, the cowling was glued shut. One side was lined up and glued first, then the second was added when the first was set.



The wings and tail planes continued the story of good fit.



The gun bay was slotted in through the big undercarriage opening and secured with super glue.



Likewise, the main gear bay was pressed into the opening and fixed with super glue. It was a simple matter to fine tune the position of the big resin casting through the opening for the engine nacelle in the top of the fuselage.



The bright red identification colour on the jet intake is a mix of 95% Tamiya TS-49 Bright Red and TS-14 Black, decanted from their spray cans and stored in a glass jar. The mixture was then sprayed with an Iwata HP-CP airbrush. The rear of the engine has been painted TS-14 Black.



The front and rear of the jet engine are masked before further painting takes place.



The lower surfaces were masked off before the upper camouflage colours were applied.



With the gun bay and landing gear bay in place, the jet engine pod could now be glued to the top of the fuselage.

and along the bottom fuselage sill with superglue. Similarly, the big main gear bay itself was inserted through the bottom of the fuselage, and super glue was flowed along the sides via the big hole where the engine would eventually be fitted.

With the gear bay in place, the engine could be secured to the top of the fuselage with Tamiya's Extra Thin Liquid Cement.

The fit of all the major components was outstanding, even after all the after-market additions.

The separate gun bay door, as supplied by both Revell and Aires, has the ejector chute hole moulded shut. This is despite Aires designing a nice open ejector chute inside the bay.

I actually gave this a lot of thought. I wasn't sure if the ejector chutes might have had some sort of flexible cover. At the time I was building the model I couldn't find a definitive photo and even the very good Fritz Decals supplies a black rectangular decal for that area.

In the end, I assumed that Revell and Aires knew what they were doing.

Of course, almost as soon as I had finished the model my Classic Publications Heinkel He 162 book arrived in the mail, too late to make any difference to what I had already done. Several photos showed open shell ejector ports on the access doors, and a couple even seemed to

The next colour was RLM 81 Brown Violet for the jet nacelle. My preferred paint for this colour is H304 Olive Drab, which I like as an equivalent to a faded shade of RLM 81 Brown Violet.



The base colour for the lower surfaces is Gunze-Sangyo acrylic H417 RLM 76 Light Blue. The large expanse of this single colour was broken up with a paler shade –by adding around 15% white. The paler shade was sprayed in fine streaks, spots and mottles.

The aircraft in question seems to have had its tail resprayed, but the original Werknummer on the bottom of the fin has been masked off. I did the same.

The main upper surface colour is Gunze-Sangyo H422 RLM 82 Light Green. At this stage, the model has also been sprayed with two coats of Future floor polish, resulting in a glass-like surface.

ecals were sourced from Fritz Decals' He 162 A-2 "Special Detailing Set". The decals performed perfectly, and the instructions offered a number of interesting insights thanks to their excellent research.

indicate that the door hinged down

and not up. Ah well. Mr Murphy is always likely to call!

Painting and Markings

My long-time favourite Heinkel He 162 subject is "White 1" from I./JG 1. This aircraft features a white number with a red outline, red shield on the forward fuselage and high camouflage demarcation on the fuselage sides.

Unfortunately, it also seems to be everybody else's favourite He 162 subject too. Rather than risk an embarrassing faux pas, I looked for an alternative scheme. I found one that I liked on Fritz Decals' 1:32 scale "He 162 Special Detailing Set" sheet. This aircraft also featured the high camouflage demarcation, but the JG 1 badge was yellow and the White 3 was outlined in black.

After masking the cockpit and wheel well openings, the paint job started with a squirt of silver inside the front of the jet intake, taking care that the bullet and fan were covered. Once the silver paint was dry, I stuffed a wad of tissue inside to block off the freshly painted parts from the exterior paint job.

Tamiya's Fine White Surface Primer on the

front of the jet nacelle was followed by a coat of red. This was mixed using 95% Tamiya TS-49 Bright Red and 5% TS-14 Black, decanted from their spray cans and stored in a glass jar. The mixture was then sprayed with an Iwata HP-CP airbrush. The rear of the engine has been painted TS-14 Black.

of Future floor polish.

The front and rear of the jet nacelle was masked and the camouflage was sprayed using Gunze acrylics.

The Fritz Decals performed perfectly over a gloss coat of Future floor polish.



Disaster? Thankfully, no. Micro Sol decal solution left this terrifying mark on the elevator. Although it looks like a terrible scar, it disappeared under a single sprayed coat

Testor's ModelMaster Flat Clear Lacquer Finish tones down the gloss and ties in the decals to the paintwork. The model has also been weathered at this stage.



A watery mix of Tamiya XF-1 Flat Black and XF-64 Red Brown has been carefully sprayed along the main structural features such as panel lines and hinges, but also in random vertical streaks and some small spots.



Plenty of detail may be seen through the open main landing gear doors.



Reference photos show a particular build-up of stains and grime around the gun troughs and the edges of the cannon bay access hatches.



This extra staining was reproduced by gradually building up multiple layers of the sprayed black and red brown mix. Also note the irregular red mark painted around the flare chute representing pinking from fabric that has been torn off.

The large expanse of light blue on this largescale model presents a few challenges. On the one hand, a completely featureless fuselage would look very boring. On the other hand, these fighters did not see much action so weathering would have been fairly light. This was borne out by examining wartime photos. I compromised by building up the streaks and stains gradually with a particularly thin mix of Tamiya XF-1 Flat Black and XF-64 Red Brown, with emphasis around the gun troughs and the edges of the cannon bay doors. The same mix was used to slightly soften the demarcation lines between the green and the light blue on the fuselage sides.



The various bits and pieces are now brought together for final assembly. The instrument panel assembly and the seat have been set aside while painting took place to avoid damage or overspray.



The landing gear is white metal and nicely detailed from Scale Aircraft Conversions. The wheels are Aires resin, supplied in the update set.



"I spent around two days painting and weathering the cockpit and the main landing gear bay, which was time well spent."

The Plexiglas canopy and windscreen appears to have been bolted in place over a back frame on the real aircraft. To depict this appearance, the canopy frames were masked and sprayed gloss black, then the painted canopy was dipped in Future floor polish. The excess was carefully shaken off and the clear pieces left to dry overnight.

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A coat of Testor's Model Master Flat Clear Lacquer really set the weathered camouflage off nicely.

It was now time to bring all the smaller sub-assemblies together. The painted ejection seat was slid onto its rails, with a spot of Blu-Tack on the bottom ensuring it would not inadvertently eject itself in the future; while the instrument panel and rudder assembly was



The chunky plastic DF loop was cut off its base and replaced with a staple from one of Tamiya's plastic bags, bent to shape around a paint brush handle. The variation in tone on the on the Brown Violet engine nacelle may be seen to good effect here.



Camouflage demarcation has been softened with a thinly sprayed line of the Black / Red Brown mix.



The "masked off" Werknummer.

The remainder of the parts – metal landing gear legs, wheels, gear doors, pitot tube and FuG 25 antenna – were glued in place now. The plastic ring of the kit's DF loop was cut off and replaced with a staple from a Tamiya plastic bag, bent to shape and secured with super glue. With the windscreen and canopy the last pieces to be added, the Volksjäger was finished. ■

The leading edges of the wing were sprayed RLM 76 Light Blue. This slightly overlaps onto the upper surfaces of the wings.

The lower section of Scale Aircraft Conversions' white metal landing gear is separate and may be posed off centre. In this case, the nose wheel is steered to starboard.



Revell's 1:32 scale Heinkel He 162 A-2 is a worthwhile model whether you are building it straight from the box or using it as the basis for a superdetailing project.

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Alignment and dihedral of the wings and the horizontal tail planes was trouble free.

FINAL VERDICT

Authentic appearance, simple parts breakdown, exceptional fit, easy construction, good detail, affordable price. What more could a modeller ask for? Revell's 1:32 scale Heinkel He 162 is a really nice model. In this scale, the He 162 is big enough to see the

With a good selection of aftermarket accessories available, there is no excuse for Luftwaffe modelling fans not

to get cracking on their own Volksjäger, whether super detailed or built straight from the box. This aircraft also suggests some interesting conversion possibilities for Luftwaffe '46 aficionados, including different tail surfaces, wings and powerplants. The Volksjäger wore some colourful markings too. Decal manufacturers have jumped on that bandwagon with releases from EagleCals and Fritz.

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BUILT AND WRITTEN BY KAMIL FELIKS SZTARBALA

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SKILL LEVEL: Intermediate

SPECIFICATION: Kitty Hawk Models 1:48 Sepecat Jaguar A. Kit No. KH80104



Kamil Feliks Sztarbala builds Kitty Hawk's 1:48 scale French Sepecat Jaguar A straight from the box



uring the last two decades, modellers interested in building 1:48 scale miniatures of modern jet aircraft have not been spoiled with as many new releases as WWII s.

However, the tides are changing over the last few years with brands like Kitty Hawk Models consistently fill the gaps in the modern jet aircraft kit range.

In the case of the aforementioned manufacturer I also have to admit that the quality of its subsequent products is constantly improving. The well-detailed mouldings of the new SEPECAT Jaguar Akit look much better than those of F-35B Lightning II described in MIM Issue 023.

What's more, unlike their earlier kits, the Jaguar is equipped with loads of external weapons. On the other hand, the wrong shape of the vertical stabilizer and an aft fuselage that is a bit too long may discourage some modellers, but when there are over a dozen new kits released per month and at least half of them are noteworthy, while three or four are real 'must-haves', I think we shouldn't bother with such judgements.

I therefore decided to build the Jaguar kit straight from the box.

Following the instructions, I started by assembling the cockpit and nose landing gear bay. All parts including the photo-etched details went together without any problems.

Other problems appeared while completing the main landing gear, its bays and aft fuselage section. Many part numbers in the assembly guide were different than those on the sprues. The more I got into, the more errors I found out. At some point I ceased paying attention to the numbers and started selecting the parts on the basis of their appearance.

temporary wedges, and squeeze the nose halves with clamps.

Some small fit issues emerged while assembling the nose. I had to insert a scalpel blade and toothpick, which acted as

A layer of Tamiya XF-4 Yellow Green formed the base colour of the interior.

To move forward with the build, I had to paint some already completed sections. The cockpit was coated with Mr.Color C8 Silver, while other inner surfaces were primed olive drab.

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The cockpit and ejection seat were airbrushed Tamiya XF-63 German Grey.

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All small details were brush painted with various Vallejo acrylics as usually.

> Next, I brought out the details with enamel washes. I used AKinteractive's AK026 Slimy Grime Dark for yellow-green areas and AK075 Wash For NATO Camo Vehicles for black and metallic surfaces. The excess wash was removed with cotton buds slightly dampened with white spirit.

"The tides are changing over the last few years with brands like Kitty Hawk Models consistently fill the gaps in the modern jet aircraft kit range.."

1:48

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Before I glued together the fuselage halves, I had to modify the air intake on the spine because it looked visually poor and required some putty. A properly cut piece of 0.5 mm styrene sheet was a perfect solution for that problem.

The engine covers may be mounted in

an open position, but the engines are too simplified to expose them without adding a lot of scratch built detail

or replacing them with aftermarket

closed position.

products that had yet to be released. Hence, the assembly of the fuselage is quite time-consuming even if we decide to attach all the covers in a Although the inner sections fit quite well, after placing them inside the fuselage I had to use some clamps again to close the halves.

The forward and aft fuselage sections also go together pretty well, but again I had to use some clamps to join them properly. Applying some putty into the joints and a few small sink marks was also necessary.

My next step was to assemble all parts which would be difficult to mount after attaching the wings.

The assembled wings matched the fuselage perfectly, but I had to use putty to fill the small gaps in the joints as these particular areas are flat in the real aircraft.

> Exhaust nozzles comprise styrene and photo etched parts which fit quite well. I left them separately for easier painting.



Wings consist of a fairly substantial number of parts due to inclusion of positionable ailerons, flaps and slats. Their mating was excellent.

I also added a few details which were shown in the instructions, but were not included in the sprues. As you probably guess, their numbers were wrong as well...

> All bays were masked using Tamiya tape, plasticine and pieces of sponge.

First, the kit was given a layer of Mr.Color C8 Silver.

It was time for preshading. I started by airbrushing a black 'net' pattern along the panel lines...

... and continued by darkening the rivet lines on the upper surfaces with Hobby Color H406 Chocolate Brown. I also applied some subtle streaks directed in airflow direction.

The underside was treated similarly to the top, but I used Tamiya X-23 Clear Blue there.

Before I began to paint camouflage pattern, I had to do some additional research because the colour profiles included in the instructions didn't look very reliable. It turned out that they have some errors. All in all, at least the colours suggested by the manufacturer are pretty well chosen. First I sprayed Mr.Color C20 Light Blue over the under surfaces. I finished this stage by highlighting some particular panels with strongly diluted white paint. nal · ·

Next, I masked off the areas that had to remain blue after applying further camouflage colours. According to the photos of real aircraft, the bottom of fuselage features only a stripe of blue which broadens at the rear.

Slightly transparent patches of Light Brown (Mr.Color C321) were airbrushed freehand

The demarcations of colours were masked with rolls of plasticine prior to painting Dark Earth patches (Mr. Color C22). To soften the edges, I sprayed them freehand after removing the plasticine.

> Later, I painted various details and coated the kit with a layer of gloss varnish. That allowed me to deal with decals. They're quite thin and react very well to Microscale decal solutions, but one have to be patient during the application.

As some of the decals were matt, while others were rather glossy, the kit had to be given another layer of clear coat. Afterwards I washed blue areas with AK-interactive AK070 Brown Blue Wash for Panzer Grey Vehicles. I applied the enamel over the panel and rivet lines...

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Other surfaces of the airframe were washed with AK-interactive AK045 Dark Brown Wash For Green Vehicles.

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...and soon removed the excess with cotton buds slightly dampened with white spirit.

> That also concerned the weapons and their pylons as well, which were coloured simultaneously with the kit.



uflage Series

UA 733

After securing the paintwork with matt varnish I could focus on painting the remaining details and weathering the airframe. The wheels were finished using grey paint for the rims and tire colour from Lifecolor's CS27 'Black rubber shades & Co' set for the tires.

> Then it was time for chipping. I was exposing the silver base coat by tapping the surface with a steel wire brush. I created lots of small paint chips on the auxiliary fuel tank...

..while the fuselage received a bit more subtle treatment.

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I also painted and installed the exhaust nozzles. A layer of Mr.Color C104 Gun Chrome worked as the base coat. Next, I did some discolouration by applying blue and gold pastels from Tamiya's Weathering Master Set D. Further weathering was to be done after attaching the nozzles to fuselage.



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As the photos of the particular aircraft which I was building indicated that the ground crew should take a few lessons from Anthea Turner, the kit needed some dirt too. I started by airbrushing AK-interactive AK082 Engine Grime. I focused on the aft fuselage and horizontal stabilizers where the dirt accumulated.



The excess enamel was removed by rolling a cotton bud dampened with white spirit over the surface.



AK075 Wash For NATO Camo Vehicles was applied the same way as the previous enamel to add more volume to the effect.



The photos of Jaguars in service reveal many damp patches and oil stains. It was quite time-consuming, but I patiently brush painted them to recreate that interesting effect. I used a very fine brush with long bristles and AK-interactive's AK084, AK025 and AK075 enamels, which were mixed with each other and white spirit in different ratios to get liquids of different colours and densities.





"...the wrong shape of the vertical stabilizer and an aft fuselage that is a bit too long may put some modellers off."



The engine area was treated similarly, but I was applying the enamels either on dry or wet surface. In the latter case the surface was dampened with white spirit.



Weathering takes well to the recessed surface textures.



Oil stains and streaking.



Detail view of the forward fuselage.





Chris Wauchop reconditions a Fine Molds 1:48 scale Kikka gathering dust on his display shelf.



he Nakajima Kikka was intended for use in suicide missions so it only received a name and not the letters and numbers usually designated to

I.J.N. aircraft. I decided to refinish my Fine Molds Kikka, which I originally built and painted in 2007. This was done mainly out of the box with a few alterations and additions.

58 MODEL AIRPLANE INTERNATIONAL - September 2020



SKILL LEVEL: Beginner/Intermediate

SPECIFICATION: FineMolds 1:48 Nakajima Kikka. Kit No. FB10

PAINTS AND FINISHING PRODUCTS USED:

Tamiya Acrylic Paints- XF-1 Flat Black, XF-2 Flat White, Xf-7 Flat Red, Xf-11 J.N. Green, XF-13 J.N.Green Gunze Sangyo Acrylic paints- H61 IJN GRAY



GALLERY











Some extra detail had been added to the undercarriage and bomb in the original build. These included brake lines on the main gear legs, the inner gear door closing brackets and a fusing prop on the bomb's nose.

Refurbishment work began with the removal of the fuselage hinomarus and the addition of canopy rails to the top of the cockpit side walls.

Wing markings were so well fixed to the original paint that I could not remove them so after a light sanding they were left in place and then painted over.

As I didn't have any appropriate decals to replace the tail codes these were also left in place and carefully brush painted around and over. The RATO pods (one of which can be seen in this and the previous shot) were later removed as I didn't think that an operational aircraft would have carried them in this position. And as I did not have any information to tell me where else they might have been placed they were left off.

In the original build I did add a fair bit of extra detail to the cockpit interior including seat belts and various levers and handles using stretched spru and lead foil. Some of these additions can be seen in this shot of the finished model.



My original 2007 build. The main alteration was to open the kit's one-piece canopy. To achieve this the kit part was carefully cut into three sections and the centre section was then used as a plug to form a new, thinner part by plunge moulding a heated piece of acetate over it. The original canopy frames did not mould clearly so new frames were cut from plastic strip and very carefully glued in place using super glue.

I added rivet detail to the lower engine cowls.

C

724-12



Tamiya and Gunze-Sangyo acrylic paints were used for the refurbished scheme.



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SO WHAT'S PLANNED FOR THE NEXT ISSUE?

Subscribe oday SEE PAGE 622 SEINS Tepol activations





GREY SHARK Piotr Slominski builds Zvezda's 1:48 scale Mi-24VP Hind **TRANS ATLANTIC**

Russell Mardling tackles the Revell (Hasegawa re-boxed) 1:48 scale FGR.2 Phantom.



FINAL THOUGHTS

EUROFIGHTER AND RAF TYPHOONS TOGETHER ON BALTIC OPERATION

detachment of German Air Force Eurofighter fighters have arrived in Lithuania to undertake combined quick reaction alert training alongside the RAF Typhoon fast jets already deployed there. This opportunity has been arranged to enhance the current twinning programme that has been running between the two air forces under Eurofighter Interoperability Enhancement programme.

Wing Commander Stu Gwinnutt, the Officer Commanding RAF 135 Expeditionary Air Wing deployed to Siauliai Air Base said, "We are really pleased to welcome our German Air Force friends here to Lithuania; to continue this cooperation is a great opportunity for learning in an operational environment."

The Luftwaffe Eurofighter detachment commander for Tactical Fighter Wing 71 "Richthofen" (Taktisches Luftwaffengeschwader 71 "Richthofen"), Lieutenant Colonel Andreas Beckmann will integrate his team of just 30 personnel into the EAW. Describing the deployment as: "a brilliant opportunity to learn more detailed insights of how the two forces can work together", he said: "Usually we are not able to fly in mixed formations, so this really offers a unique chance to enhance our capability both from a flying perspective and for our Engineers and logistics teams."

He added "being part of this programme enhances our capability to achieve the steps towards the plug & fight concept, one of which is a conscious reduction in our footprint without a reduction in reaction times for operational output".

The 'Plug & Fight' concept as a force package is the smallest contingent of personnel and aircraft, with the aim of common flight operations which can very quickly dock into an existing operations laydown of a partner nation. This concept will provide an enhanced multinational capacity to act together with European partners on current training and eventually, operations.

The Typhoons operating under 135 EAW normally operate out of RAF Lossiemouth in Scotland, and the Eurofighters of 71 Fighter Squadron, based in Wittmund in Northern Germany, will be taking over the Baltic Air Policing mission from Estonia later this year.*

* Contains public sector information licensed under the Open Government Licence v3.0.





TAMIYA LACQUER PAINTO

69 AUTHENTIC COLOURS DESIGNED FOR MODELLING EXCELLENCE

The Tamiya Colour range of quality paints - designed specifically for modelling use has long helped modellers achieve the perfect finish on their scale masterpieces. Now, existing Tamiya Colour bottled acrylic, plus lacquer spray paints are joined by the new Lacquer Paint line of bottled Tamiya Colours. Use them as your needs require: airbrush large areas, or pick out fine details. With a tough membrane and swift overall drying times - but slow initial drying to allow a beautiful unblemished finish. We are sure they will become an essential item in your modelling armoury.

- No need for primer: gloss and matt colours can be applied directly to model kit plastic
- Quick drying time
- Fabulous when airbrushed, and can also be applied by paint brush to detail areas
- Can be used in a similar way to Tamiya's X and XF line of acrylics
- Weathering colour washes and dry brushing can be applied over the dried Lacquer Paint
- Once dry, can be safely over-painted with acrylics, enamels and other model paints
- Lacquer Thinner Retarder Type (87194) slows initial 'flash off' time, allowing paint droplets to merge on the surface of the model for a smoother finish
- Robust final finish that adheres strongly to the model's polystyrene surface
- Constantly expanding range of colours for military & civilian subjects
- Ultra-high Tamiya quality





Beautiful colours with superior gloss

The stunning tones and lustrous glossy finish provided by airbrushing Tamiya Colour Lacquer Paint are perfect for model car and motorcycle paint jobs, and it's tough membrane is perfectly suited to treatment with polishing compounds. Colours previously only available as sprays - Pearl blue, Mica red, Pure orange and more, are now in bottled form removing the need for decanting when you want to airbrush.



Great for airbrushing

Tamiya Colour Lacquer Paint's true, consistent tones make it perfect for airbrushing large areas. Mix 1 part Lacquer Paint with 1-2 parts dedicated thinner, and make 2-3 passes over the subject with your airbrush. Pick out the details with Tamiya Colour mini acrylic paints: Lacquer Paints provide a durable base coat that remains undamaged even by enamel topcoats.



Efficiency is the name of the game

Tamiya Colour Lacquer Paint dries quickly: most colours are safe to touch after an hour and can be masked on top of 24 hours later, saving valuable time in the production of your masterpiece. Again, as Lacquer Paints provide a durable base coat that remains undamaged by enamel counterparts, there is less worry during paint jobs that require multiple layers of paint.



No worries when weathering

Tamiya Colour Lacquer Paint's resistance to enamel paints is a big advantage in the weathering process too, as enamel paints are most commonly used for the application of washes and depiction of dirt, grime and oil, in particular on military model subjects. Just apply a Lacquer Paint base coat and get to work weathering!

ITEM 87198 - PAINT RETARDER

This paint retarder is dedicated to the Tamiya line of lacquer paints. Retarder slows drying of paints for beautiful finishes and limits blushing in humid conditions. By slowing the drying of the paint it lessens the likelihood of brush marks remaining and blemishing your surface coat.



ITEM 87194 - LACQUER THINNER RETARDER TYPE

This new product not only thins lacquer paints for airbrushing, it also includes retardant to slow the drying of the thinned paint, particularly useful in covering up any overspray and getting a glossy finish.



ITEM 87077 - LACQUER THINNER

This thinner has a variety of uses in addition to the thinning of lacquer-based paints. It is also useful when cleaning painting tools and airbrushes, removing unwanted paint or excess putty, and even thinning liquid surface primers.





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Lightning Strikes Again!

Limited Edition 1/48 Scale Kit Lockheed P-38 H Lightning (Item 25199)

The twin engine P-38 Lightning offered an imposing blend of speed, range and firepower, and would be developed through a number of variants to meet emerging threats. The P-38H first appeared in the skies from the middle of 1943, and availed itself of more powerful engines and tweaked landing gear struts among various updates. It was mainly deployed in the Pacific. Now, the P-38H makes an appearance in detailed Tamiya 1/48 scale, with new parts included to capture its specific updates, and an ergonomic design that keeps the build from getting overly complex, without sacrificing detail. Also in the box are decals to recreate a famed marking scheme, making this a limited edition kit that you will not want to miss!

★Integrated landing gear bay and spar components ensure correct dihedral. ★A detailed cockpit includes depictions of the control wheel, plus dedicated P-38H instrumentation. *Metallic effect decals for landing gear struts give a realistic finish. *Comes with one marking scheme and weights to ensure stability on display.







Updated landing gear designs are captured. Bay interiors are depicted without air filters.



Choose an open or closed center canopy. The rear is without reinforcing frame. A pilot figure is included.



Realistic turbochargers feature the cooling pipe added on the ground by many units in the Pacific.



TAMIYA, INC, 3-7 ONDAWARA, SURUGA-KU, SHIZUOKA 422-8610 JAPAN *Images show assembled and painted kit. *Product may vary from images shown. ©2020 TAMIYA