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July 2016
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**IT'S
SHOWTIME!**
WE VISIT SWORD &
LANCE

**KIT
PREVIEW**
TAMIYA 1:48 F-14
TOMCAT AND 1:100
EMBRAER 175



**NEW
BUILDS
INSIDE**



KIT BUILD

FULLY LOADED

*We take a detailed look at the brand-new
1:72 Eduard Fw190A-8*



FULCRUM GREAT WALL
HOBBY 1:48
MIG-29SMT



F/A-18C

"U.S. NAVY", "SWISS AIR FORCE", "FINNISH AIR FORCE" & "TOP GUN"



F/A-18

is a twin-engine supersonic, all-weather carrier-capable multirole fighter jet, designed to dogfight and attack ground targets.



1/48

SCALE K48031

F/A-18C "U.S. Navy", "Swiss Air Force", "Finnish Air Force" & "Top Gun"



Markings :

- VFA-25 Fist of the Fleet CVW-17 USS Carl Vinson Bund 164266 2011
- VFA-87 Golden Warriors CVW-8 USS George Bush Bund 164250 2013
- NSAWC "Russian Splendor" Bund 163746 2009
- NSAWC "Sukoi Blue" Bund 163754 2009
- NAWDC Bund 163750 2016
- J-5014 Swiss Air Force 2014
- HN-457 Finnish Air Force 2006 "Kreive Von Rosen"

Model Features :

- Positional flaps, slat
- Extra outer wing for fold wing configuration
- New engraving technology for crispy panel line and laser engraving for superdetail
- Highly detailed cockpit
- Parts to incorporate early and late F/A-18C option
- Nose search light for Swiss and Finland version
- Full intake
- Super detail MLG and NLG bay

Photo Etched part is included.

Weapon includes :

- Fuel tank • VER • AGM-88
- AIM-9X, AIM-120B/C, AIM-7X, GBU-12, CBU-20
- AAQ-13/14, AAQ-28/Sniper



Length : 356mm

Wingspan : 256mm



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HOW TO CONTACT US:

Tel: 01525 222573
Fax: 01525 222574

Model Airplane International, Doolittle Mill, Doolittle Lane, Totternhoe, Bedfordshire, LU6 1QX, England

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Editorial:

Editor: Spencer Pollard
spencer@adhpublishing.com

Publisher: Alan Harman
Group Editor: Marcus Nicholls
Administration Manager: Hannah McLaurie
Office Manager: Paula Gray
Advertising Manager: Sean Leslie

Art:

Editorial Design: Peter Hutchinson
Advertising Design: Peter Hutchinson & Alex Hall

Advertisement and circulation:

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Distribution:

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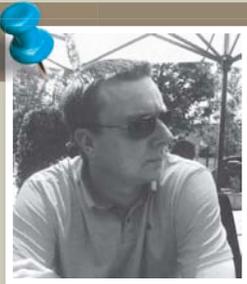
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EDITORIAL



IF ONLY THEY'D LISTEN TO US...

Every time a new kit gets announced, there is usually either a wall of disapproval or disappointment to what the chosen subject is either the wrong subject, wrong scale or

there's already a kit on market, why do "we" need another one? The recent announcement of Tamiya's new 1/48 F-14 Tomcat ticked all these boxes and then more – there's no shortage of 1/48 F-14s out there and Tamiya Tomcat wasn't bringing anything new to party with its closed slats and flaps. Why are Tamiya doing a Tomcat?

“ If your favourite subject doesn't appear in the next batch of kit announcements, it not because kit companies are not listening or are somehow missing some great market opportunity ”





The simple answer is that a Hasegawa 1/48 F-14 makes no money for Tamiya. And for that one can substitute any kit company and subject matter into the mix. "But why couldn't they have done... (insert favourite subject here)?" and it's here that the notion that enthusiasts know what would sell tends to splinter off into different directions. Enthusiasts know what they personally like to build, but all too often those wants are conflated into a window onto the modelling world when in fact they're just a mirror to the individual. All too often people talk in the plural as if there had been some election for a spokesperson for all modellers, when in fact it's entirely subjective. To quote an old Genesis song, "I know what I like...."

It's often said that if you ask 10 enthusiasts what they would like as kits, you'd get 10 different answers. The enthusiast sector is a highly vocal and highly organised part of the hobby – but it is a part, not the whole. It's easy to look at the myriad of new releases and think it's all enthusiast centric, and that kit major companies are hovering around modelling forums hanging on to every word anyone has about what will sell and what won't. I'm sure some kit companies do keep an eye on those places, but they'll also be looking at the things that sell in their ranges – and sometimes these are things that fall outside of enthusiasts tastes – and feedback from the trade as to which products lines are moving and which ones are not.

Occasionally there's grumblings about why kit catalogues don't have the wider range of subject matter they had decades ago, but times have changed, the market has changed and kit catalogues tend to be an accurate

reflection of what sells – if your favourite kit or subject matter isn't in one, chances are there's a logical reason for it. It's not like everyone sat around a board table like something in a James Bond movie and just decided to drop a kit of subject matter out of spite. Similarly the notion that kit companies should elect modellers to "choose" which of their kits should be on sale on the basis of the "best" kits. You cannot force a market to buy a kit if they don't want it, but equally it there's little commercial logic to withdrawing a kit that sells volume just because three guys on a modelling forum think it should be retired. Equally, it would take a brave (or rich) person to open a model shop and sell only the kits they think the modelling public should be buying.

Alas, sometimes even the really nice kits lose their market for a while, and yet decades-old warhorses continue to soldier on, despite protestations that they'll put off fledgling modellers for life – because if they are, they're taking their time doing it. An inexperienced modeller could easily be disillusioned by a modern, complex kit as they could by something basic from the 1960s. It's a roulette wheel of chance dependent on the aptitude of the builder, and in this regard you even come across enthusiasts arguing over a kit that some find an "engineering disaster" that others have little problem with.

The bottom line is that kit companies are businesses, they are not a service to modellers. And while that may sound harsh, it is a commercial reality. Model kits are large, expensive investments, and different kit companies have different business models (sic) as to who much and how fast tooling has to pay for itself in order to be a success.

That's why when you sometimes get the "risk" subjects announced, you also get some "bankers" as insurance.

The late great Maurice Landi of Matchbox once said something to the effect that sometimes they listened to the enthusiast too much and ended up with "much requested" subjects that didn't resonate with the wider kit buying public.

Which brings us to the issue of the enthusiast end talking up a subject matter and kit, only to go AWOL when it's finally released. "Well of course, I'd really love one, having championed it as a kit for some time now, but where would I put it?" There's the tendency to excitedly talk about ideas for releases that are just that – ideas with little if any possibility of ever being done, even if a handful of people say "I'd buy one". That's great, if you could buy 100, that would be better!

As unpalatable as it may sometimes sound, kit companies tend to know more about their markets than modellers do. That's not to diminish the support and sales from modellers – far from it! – but when it comes to the commercial side of things, the view is often clearer simply because every kit company knows its product lines and its sales inside out.

"I know what I like..." But liking something and thinking that everyone else will like it too are often different things. If your favourite subject doesn't appear in the next batch of kit announcements, it not because kit companies are not listening or are somehow missing some great market opportunity.

They'll have done their research, they'll know what the trade has sold and is asking for. And it's their money that's being risked on new kits. (Jonathan Mock)

NEWSLINE

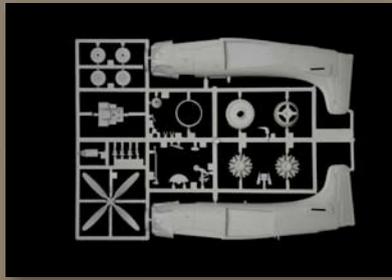


ITALERI

www.italeri.com

1:48 AD-4W SKYRAIDER

The Douglas Skyraider was manufactured immediately after War World II. Despite its traditional piston motor, in an age when jets were spreading, the Skyraider had an extraordinarily long career. It made its first flight in 1945 and it was retired from service only in 1975. It has participated to several conflicts, demonstrating its value in Korea and in Vietnam. Characterised by low speed manoeuvrability, it was able to transport impressive war cargos of over 3,500Kg. Perfect for ground attack missions, it was provided with robust armour to minimise fire damages from the enemy. The AD-4W three-seat (one pilot and two observers) airborne "early warning" version has been developed from its robust and reliable design. It has built in more than 150 units and it has been characterized by the big "radome", the adoption of radar picket system to look and acquire potential targets, and the adoption of advanced communication system.

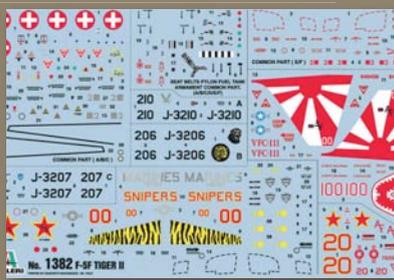


ITALERI

www.italeri.com

1:72 F-5 F TIGER II

Developed in the early seventies from the American company Northrop, as direct evolution of its predecessor, the F-5E Tiger II was characterized by an increased power, a better maneuverability and better air-to-air performance. Its real strength however, was represented by the low production and maintenance costs compared to a good combat effectiveness. Thanks to its cost / performance ratio the F-5E was chosen to equip the fighter squadrons of several air forces. Among these countries, the Swiss Air Force considered the F-5E suitable to meet the real unique features of which the Alpine Country needed. It was also produced under license by the Helvetic country. From the single-seat F-5E, the two-seat trainer F5-F has been directly derived. Armed with a single M39 gun, it keeps all the main operating features of the single-seat version.

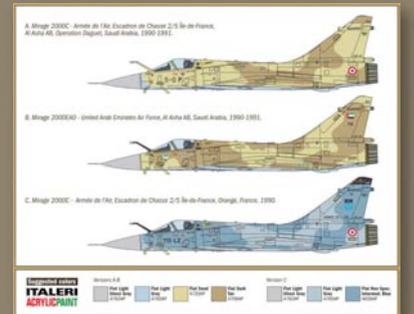
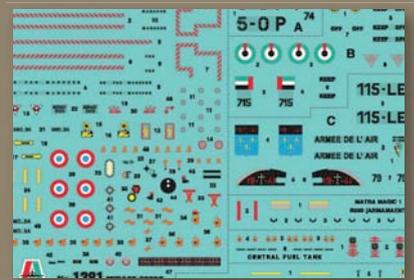


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1:72 MIRAGE 2000C - GULF WAR 25TH ANNIVERSARY

The Dassault Mirage 2000C is a single-seat air superiority fighter and it has been a reference point for the French aircraft production. Entered in service in the first part of 80's, it maintained the typical "delta wing" aerodynamic design but, compared to the previous generation French fighters, the Mirage 2000 has adopted significant technical improvements. Thanks to its SNECMA afterburning turbofan engine, it is able to reach the speed of Mach 2.2. It has a great maneuverability and it can carry a various set of offensive weapons. The Mirage 2000C is often considered the first new generation fighter, produced in Europe, to be entered in operational service. The main user has been the French Armée de l'Air that used the Mirage 2000C during Gulf War on 1991.



HASEGAWA

www.hasegawa-model.co.jp

1:72 MIRAGE F.1C "SPANISH AIR FORCE" (2 KITS IN THE BOX) - 02204

Markings:

Spanish Air Force (Ala 14) Code: 14-37 2012

Spanish Air Force (Ala 14) Code: 14-39 2012

Spanish Air Force (Ala 14) Code: 14-44 2012



MIRAGE F.1C "SPANISH AIR FORCE"

1:48 AH-64E APACHE GUARDIAN "TAIWAN ARMY" - 07432

Markings:

Taiwan army Code: 812 (10012)



AH-64E APACHE GUARDIAN "TAIWAN ARMY"

1:72 F-15J EAGLE "304SQ NAHA 2016" - 02207

Markings:

J.A.S.D.F. 9AW 304 Squadron, Code: 822 (32-8822) Naha AB Jan., 2016

J.A.S.D.F. 8AW 304 Squadron, Code: 822 (32-8822) Tsuiki AB Dec., 2015



F-15J EAGLE "304SQ NAHA 2016"

X-29® "NASA" - 02206

Markings:

NASA Code: 049

NASA Code: 003



CARACAL DECALS

www.caracalmodels.com

CD72045 - 1/72 C-54 SKYMASTER - PART 2

Their second sheet for the Revell C-54 kit features a variety of USAF / US Navy marking options for the Skymaster.

CD72052 - 1/72 BLUE ANGELS C-130 "FAT ALBERT"

This 1/72 sheet features accurate markings for "Fat Albert", the C-130 Hercules assigned to support the Blue Angels aerobatic team. Markings for both the 1980s (A-4 Skyhawk-era) and current airframes are included.

CD48067 - 1/48 MIRAGE III OVER AUSTRALIA - PART 1

A limited reprint of their original Australian Mirage III sheet. A very comprehensive set of stencils, a full set of serial numbers and at least 20 marking options covering the entire service history of Mirage III "down under". The initial release of this sheet sold out in less than three weeks: now you once again have a chance to get it before it is gone forever. Designed for the Kinetic kit.

CD48097 - 1/48 MIRAGE III OVER AUSTRALIA - PART 2

A brand new set with more than 10 new marking options that we could not fit in the first RAAF Mirage set! Includes markings for

three experimental schemes, both Williamtown commander's aircraft, and the fabulous ARDU yellow/green scheme. Designed for the Kinetic kit.

CD48102 - 1/48 F-104C IN VIETNAM

A comprehensive set of markings for the Vietnam War service of F-104 Starfighter, "the missile with a man in it". 10 options; several of them with interesting nose art.

CD48104 - 1/48 MI-24 "LAST HINDS OF NATO"

Markings for the venerable Mi-24 Hind in the service of its former enemy - NATO. This sheet features options for Bulgaria, Poland, Hungary and Czech Republic; including "Kosta", the Mi-24 painted to look like a WWII RAF Coastal Command Liberator flown by a Czech crew. Designed for the Revell-Monogram kit and CMK conversion/detail sets.

CD48106 - 1/48 SHENYANG J-15 (SU-33)

Accurate and comprehensive markings for Shenyang J-15, a Chinese-built version of the Su-33 Flanker carrier-based fighter. You can build one of the operational jets now serving on the Chinese aircraft carrier Liaoning; or one of the two prototypes featured on the sheet. Designed for the new Kinetic kit and the Dream Model J-15 conversion set.

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04884
Embraer 195 Air Dolomiti, 1:144

NEW TOOL

LEVEL 3

04920
Avro Shackleton Mk.2 AEW, 1:72

NEW TOOL

LEVEL 3

04921
BAe Hawk T1 Red Arrows, 1:72

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KIT PREVIEW



TAMIYA 1:100 EMBRAER 175 'FDA'

The Embraer E-Jet family is a series of narrow-body medium-range twin-engine jet airliners produced by Brazilian aerospace conglomerate Embraer. Launched at the Paris Air Show in 1999, and entering production in 2002, the aircraft series has been a commercial success. The aircraft is used by mainline and regional airlines around the world. As of 30 September 2015, there is a backlog of 263 firm orders for the E-Jets, 433 options and 1158 units delivered. The E170/E175 models in the 80-seat range are the smaller in the E-Jet family. They are powered with General Electric CF34-8E engines of 14,200 pounds (62.28 kN) thrust each. The E170 and E175 directly compete with the Bombardier CRJ-700 and Bombardier CRJ-900, respectively, and loosely compete with the turboprop Bombardier Q400. They also seek to replace the market

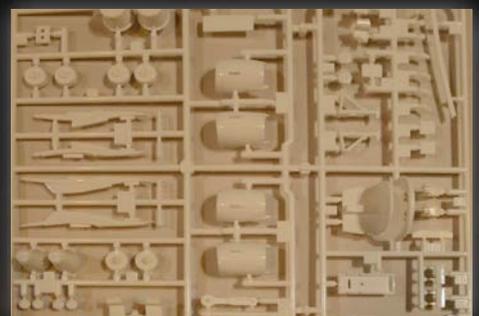
segment occupied by earlier competing designs such as the BAe 146 and Fokker 70. The Embraer 170 was the first version produced. The prototype 170-001, registration PP-XJE, was rolled out on 29 October 2001, with first flight 119 days later on 19 February 2002. The aircraft was displayed to the public in May 2002 at the Regional Airline Association convention. After a positive response from the airline community, Embraer launched the E175. First flight of the stretched E175 was on June 2003. The launch U.S. customer for the E170 was US Airways, after FAA certification, the aircraft entered into revenue service on April 4, 2004 operated by the MidAtlantic division of US Airways, Inc. The first E175 was delivered to Air Canada and entered service in July 2005. The 170-001 prototype performed its last flight on April 11, 2012. Its destiny was disassembly in the US for spare parts. (Wikipedia)

Tamiya has made the decision to model this aircraft in 1:100, a first for them in terms of airliner kits and a return to a scale that they used with some success during the early years of their aircraft kit range. Obviously, we only have the shots taken by Brett Green at Shizuoka, but by examining them we can see that this is another fine kit from Tamiya that will no-doubt build into a superb model of this attractive jet. Certainly the chance to model ten different FDA (Fuji Dream Airlines) aircraft in what appears to be ten different schemes(!) adds to the attraction! Box art mentions detailed cockpit, landing gear and engine pods, so the larger scale of 1:100 should result in a model that is nicely detailed, but not too large as to dominate the display case. We are looking forward to seeing this model arrive in due course, but in the meantime, we would like to thank Brett for the images used here. ■





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立てキットに飛行
考展示品)
175



SHOWTIME

WRITTEN BY SPENCER POLLARD

SWORD & LANCE



The UK is blessed with a wide range of high-quality model shows that allow visitors to see all manner of wonderful models, traders and other interesting exhibits. Though I tend to concentrate on model shows that are local to me in the Midlands, I will travel further afield if the show is deemed to be worthwhile enough, for the time spent in the car. One such show is Sword & Lance in Darlington, County Durham...

Held in my mother's home town, I am extremely familiar with the area having spent many summers there as a child, so the chance to go there once more this year, was grabbed with both hands. Held in the wonderful Darlington College, Sword & Lance is not the biggest show you will ever visit, but its size hides the fact that it is one of the best organised, with some of the finest models you will see anywhere in the UK. Also, many of the modellers that visit each year, are not seen regularly further south (many being from Scotland), so the work on display was new to me and that makes the pleasure of admiring the club stands and competition, all the more intense.

As mentioned, the show is held at Darlington College, or rather it's held in their atrium, a separate room on the other side being used to hold the competition and seminar rooms - the latter hosting David Parker and Bill Horan's talks and displays. The atrium is noteworthy in being lit only by natural light and nothing else. Having visited model shows in sports halls around the world, lit by dreadful fluorescent lights that destroy all below them, it was amazing to see models as they should be seen, in clean, natural light.

The displays themselves were varied and interesting, everything from AFVs, through science fiction, figures and aircraft. Everything that you may be interested in was there, both as part of the club stands and the competition. The competitive classes are an aspect of this show that draws many to the event and this year's competition was no different, the classes being filled with high-quality models.

Over the next few pages we bring you some of our favourites from the aircraft that were seen at the event, they are not in any particular order or preference, just models that we enjoyed seeing. There are also some shots of the event that will give you a good idea of what you can expect should you wish to visit Darlington, next year.

This then is Sword & Lance 2016 - we hope that you enjoy it!





"It was amazing to see models as they should be seen, in clean, natural light"



SHOWTIME



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32036 Hansa-Brandenburg W.12 Early 1/32



32041 Roland C.IIa Late 1/32



32042 AEG G.IV Late 1/32



32046 Albatros B.II Early 1/32



32047 Albatros D.Va (OAW) 1/32



32048 Fokker E.III Late 1/32



32050 Felixstowe F.2a Early 1/32



32054 Sopwith Snipe Late 1/32



32057 DFW C.V Late 1/32

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32059 Salmson 2-A2 "USAS" 1/32



32060 Bristol F.2b Fighter (Post War) 1/32



32061 DH.9a "NINAK" (Post War) 1/32



32066 Felixstowe F.2a Late 1/32



32801 Felixstowe F.2a & W.29 "The Duellists" 1/32



B6313, WG Barker (50 victories),
 139 Sqn RAE, late July 1918
In Development
 Sopwith F.1 Camel 1/32

Registrations of interest from prospective retailers and wholesalers are now being accepted - wholesale@wetanz.co.nz

KIT BUILD

SKILL LEVEL: ADVANCED

SCALE
1:48

SPECIFICATION:

Focke-Wulf Fw190A-8
Kit No. 70111
Materials: IM/PE/R
Available From: All Good Model Shops
Price Guide: £13.99

BEFORE STARTING:

- Tamiya Extra Thin Cement
- Gunze Sangyo Mr Cement S
- Tamiya Masking Tape
- Xuron Cutters
- Tweezers
- Swann Morton No.10 Scalpel & IOA Blades
- Plasti-Zap Cyanoacrylate Glue - thin and medium viscosity
- Gunze Sangyo Mr Filler Primer
- Humbrol Filler
- Mr Color Thinner
- Uschi Van Der Roster Rigging Thread

PAINTS USED:

Tamiya Acrylics
XF-1 Flat Black
XF-2 Flat White
X-18 Semi Gloss Black
XF-22 RLM Grey
XF-7 Flat Red
XF-64 Red Brown
X-22 Clear
A5-12 Bare Metal Silver
Fine Surface Primer

Gunze Sangyo Mr Hobby Acrylics

H70 RLM02 Gray
H417 RLM 76 Light Blue
H68 RLM 74 Dark Grey
H69 RLM 75 Gray

Alclad II
Steel
Gun Metal

Vallejo Acrylics - colours for detailing and matt varnish

ACCESSORIES USED:

- Eduard Brassin Fw190A-8 Propeller - 672086
- Eduard Brassin Fw190A-8 Engine & Fuselage Guns - 672088
- Eduard Brassin Fw190A-8 Cockpit - 672081
- Eduard Brassin Fw190A-8 Wheels - 672080
- Eduard Fw190A-8 Landing Flaps - 72612
- Eduard Fw190A-8 Superfabric Seat Belts - 73033

SOURCES

- Eduard - www.eduard.com
- Gunze Sangyo, Uschi Van Der Rosten - Albion Alloys, www.albionalloys.co.uk



BUILT AND WRITTEN BY SPENCER POLLARD

FULLY LOADED

We build Eduard's latest 1:72 aircraft kit release, the wonderful Focke-Wulf Fw190A-8

Though well known for their range of 1:48 aircraft kits, Eduard has ploughed an equally successful furrow in the field of 1:72 kits, the latest of which is their delightful Fw190A-8. Over the next few pages or so we'll take a look at the kit and the whole raft of incredible add-ons that Eduard has created for it.

For their first release in this family, Eduard chose the heavily-armed fighter-bomber, the A-8, the most widely used variant. As those familiar with the aircraft will no doubt hope, this new kit is carefully designed, easy to build and accurate in both outline and detail. Careful examination of the airframe reveals wonderfully detailed surfaces, with panel lines, rivets, fasteners and other delicate features, all present and correct. They are also wonderfully delicate; models in this scale really need to be detailed with features that are in keeping with the scale, but we often see kits that exhibit panel lines that are the same size as larger models and that can really kill the illusion of realism. Not so here; the ▶

"For their first release in this family, Eduard chose the heavily-armed fighter-bomber, the A-8, the most widely used variant"

KIT BUILD

SKILL LEVEL: ADVANCED

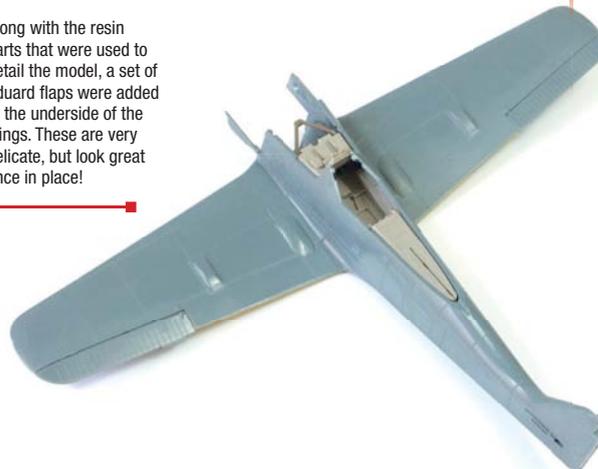
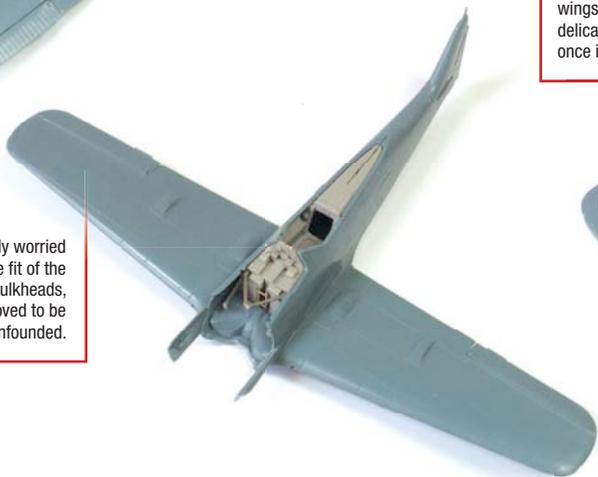
Construction begins with the major sub-assemblies, the fuselage and wings. The fuselage panels around the nose have been removed to allow the Brassin engine to be used.



Test-fitting the wings and fuselage. With care, the fit around this model — even with the aftermarket details — is very good.

Along with the resin parts that were used to detail the model, a set of Eduard flaps were added to the underside of the wings. These are very delicate, but look great once in place!

I was initially worried about the fit of the interior bulkheads, but that proved to be unfounded.



Eduard's separately available resin and etched cockpit set is comprehensive and wonderfully detailed.

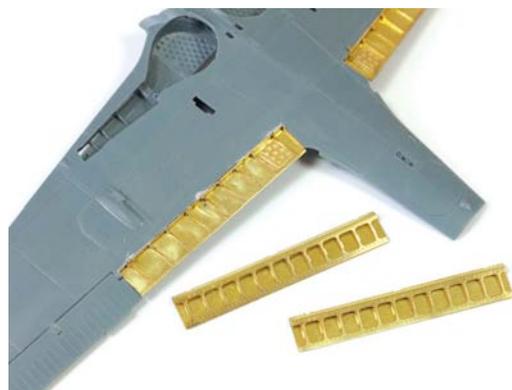
◀ panel lines and other surface features are very delicate and look superb under a coat of paint and a spot of subtle weathering.

From the box, the model is well detailed and the features plenty of set-up options such as open or closed canopy, individual control surfaces, etc. The cockpit is well-detailed with nicely rendered control panel and side consoles. Being a 'Profipack', the plastic parts are further embellished

with a set of pre-printed instrument panels, seat straps and other small items such as rudder pedals and throttle controls. Though the colour of the panels is a little light (almost looking like RLM 02 Grey, rather than RLM 66 Dark Grey), they look fine in place, a wash of matt black thinned with white spirit, helping to blend them in with the surrounding paintwork.

Though the kit cockpit looked fine, this was the first area to be replaced

"I know that I will never build a more detailed model of this aircraft, in this scale"



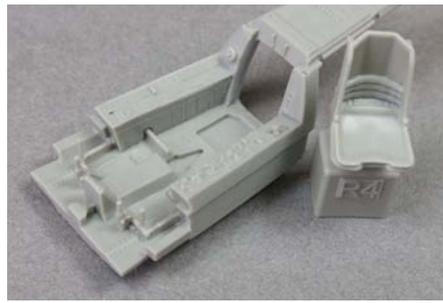
The wings need to be chopped a little to allow the etched flap bays to fit into place. This is fiddly and time-consuming, but more than worthwhile.



The dropped flaps are seen here, being checked for fit before being painted. Detail is astonishing for something that is so small - a feature, as we will see, of the model as a whole...



Though the colour of some of the interior placards is a little light, they still improve the look of the completed cockpit, no end.



The resin cockpit tub and seat. These parts need only their pour stubs to be removed before being a drop-in replacement for the kit's plastic parts. Just look at that detail!

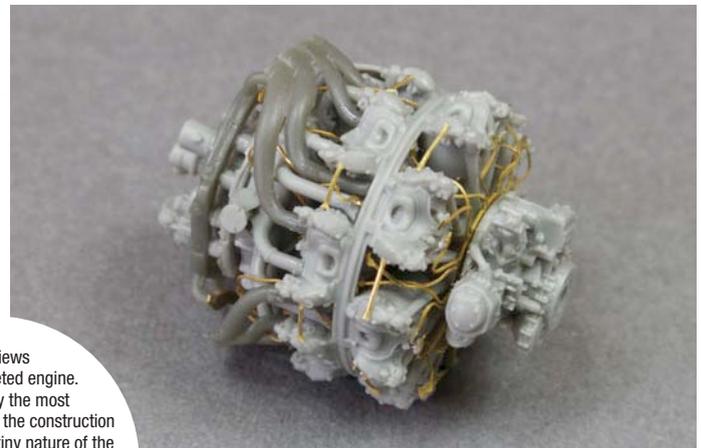
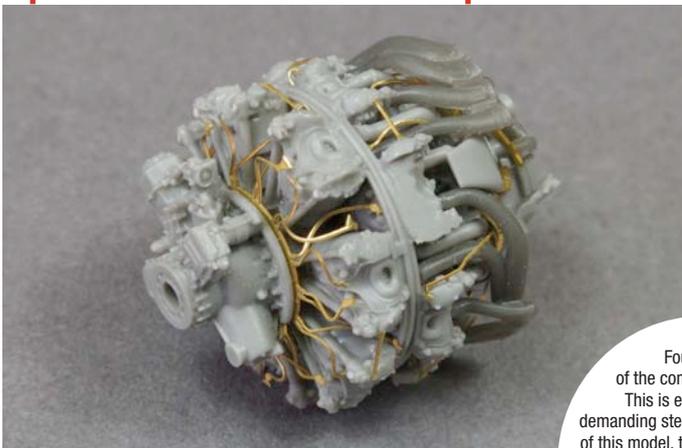
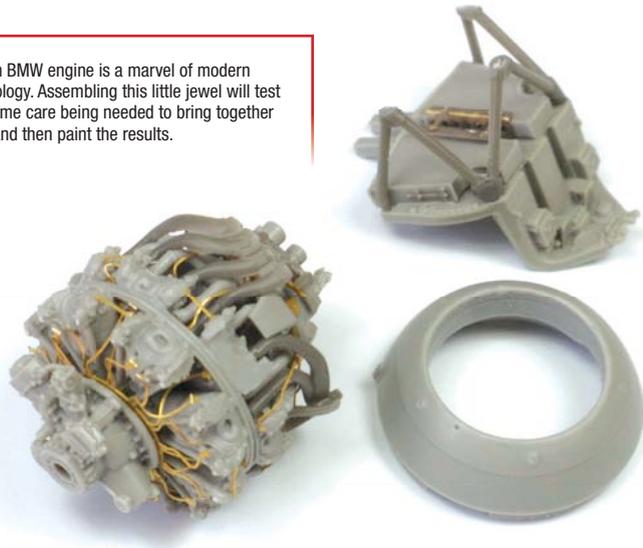


The completed cockpit, painted and weathered. The overall colour is RLM66 Schwartzgrau, washing and drybrushing helping to bring out the details. The seat straps are another aftermarket set, this time one of Eduard's 'Superfabric' sets.

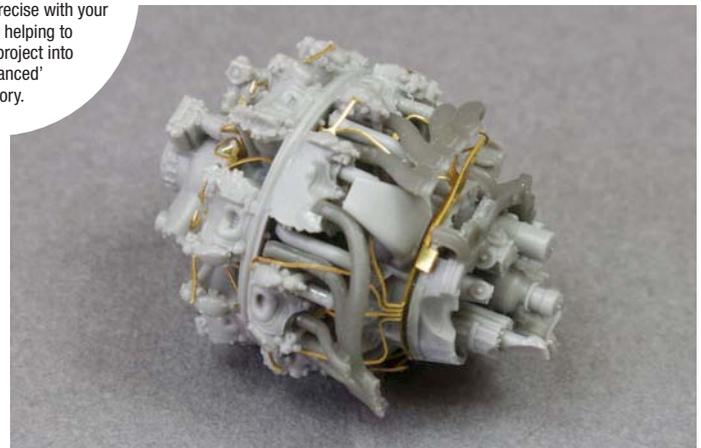
for this build, Eduard's Brassin cockpit being dropped into place. These new parts exhibit very high levels of detail and need only careful painting and weathering to replicate the real cockpit in this small scale. One change that I made here was to replace the etched seat belts with a set of 'Superfabric' items. Though looking a little bright, they allowed each belt to be realistically draped over the seat, which is often tricky with etches belts, especially those created for 1:72 kits such as this. Incidentally, the belts were fixed in place with superglue, though I'm sure a slower setting adhesive such as Gator Glue, would be just as suitable.

Moving on, the kit includes a well-moulded engine face and propeller. Though these look fine, I decided

Eduard's Brassin BMW engine is a marvel of modern moulding technology. Assembling this little jewel will test your skills, extreme care being needed to bring together the tiny pieces and then paint the results.

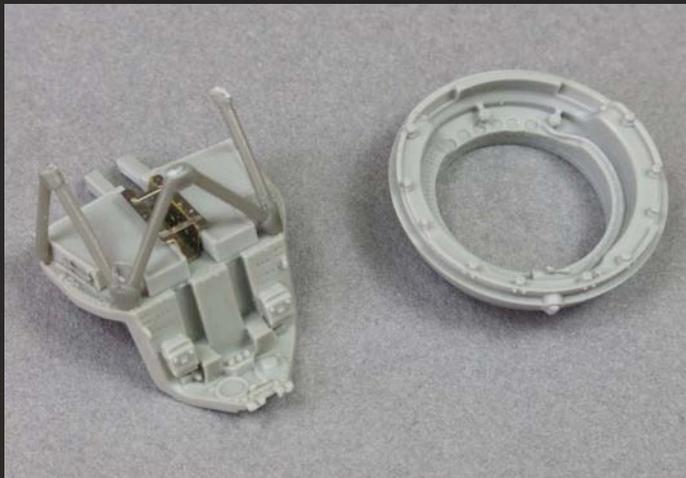


Four views of the completed engine. This is easily the most demanding step in the construction of this model, the tiny nature of the individual components and the need to be extremely precise with your chosen glue, helping to elevate this project into the 'advanced' category.

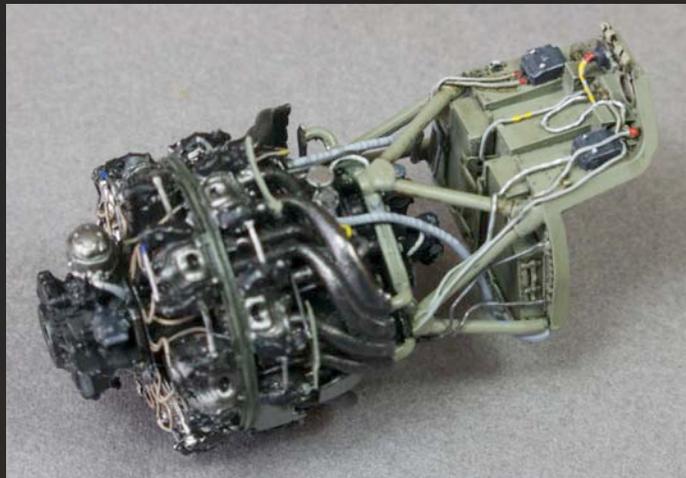


KIT BUILD

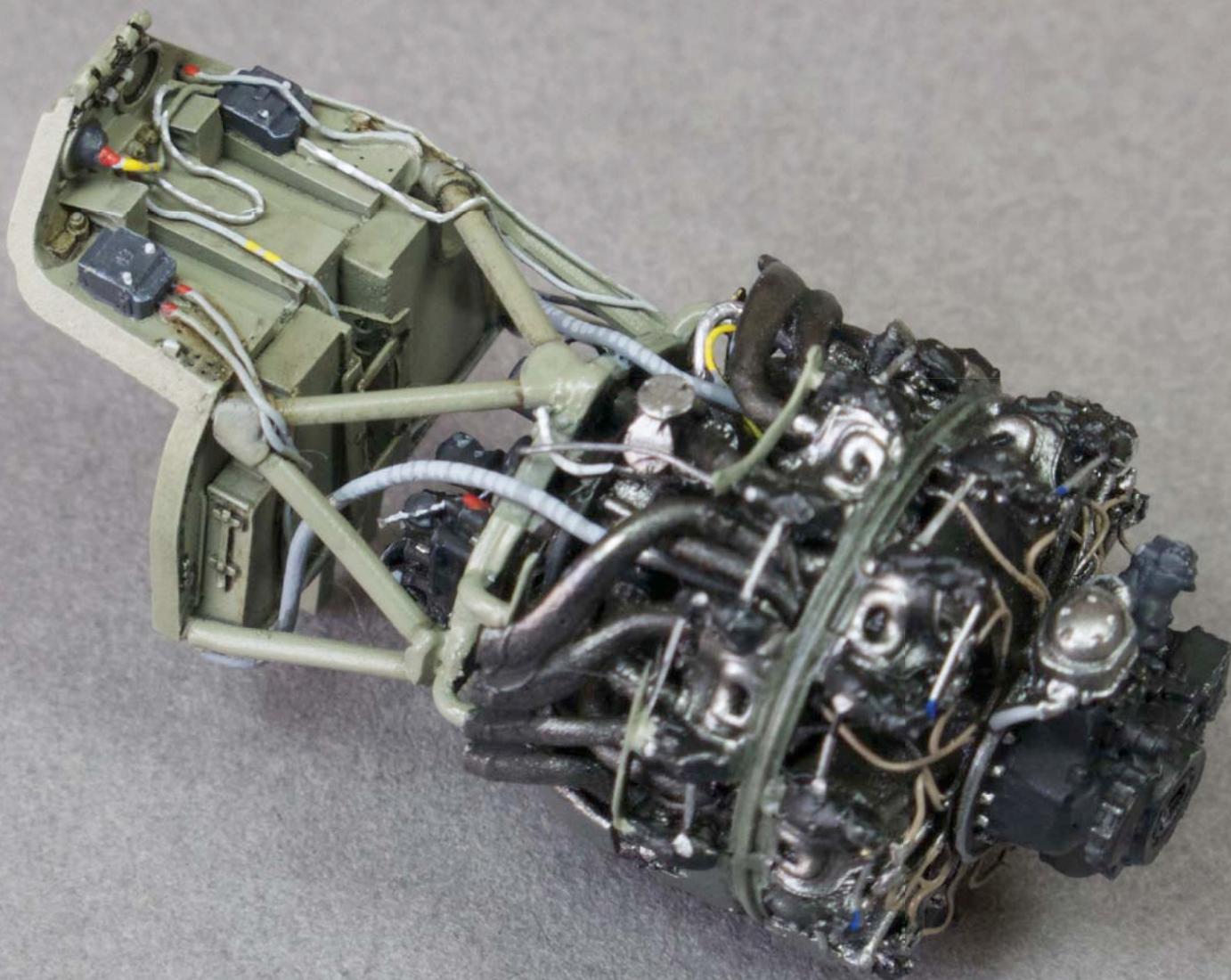
SKILL LEVEL: ADVANCED

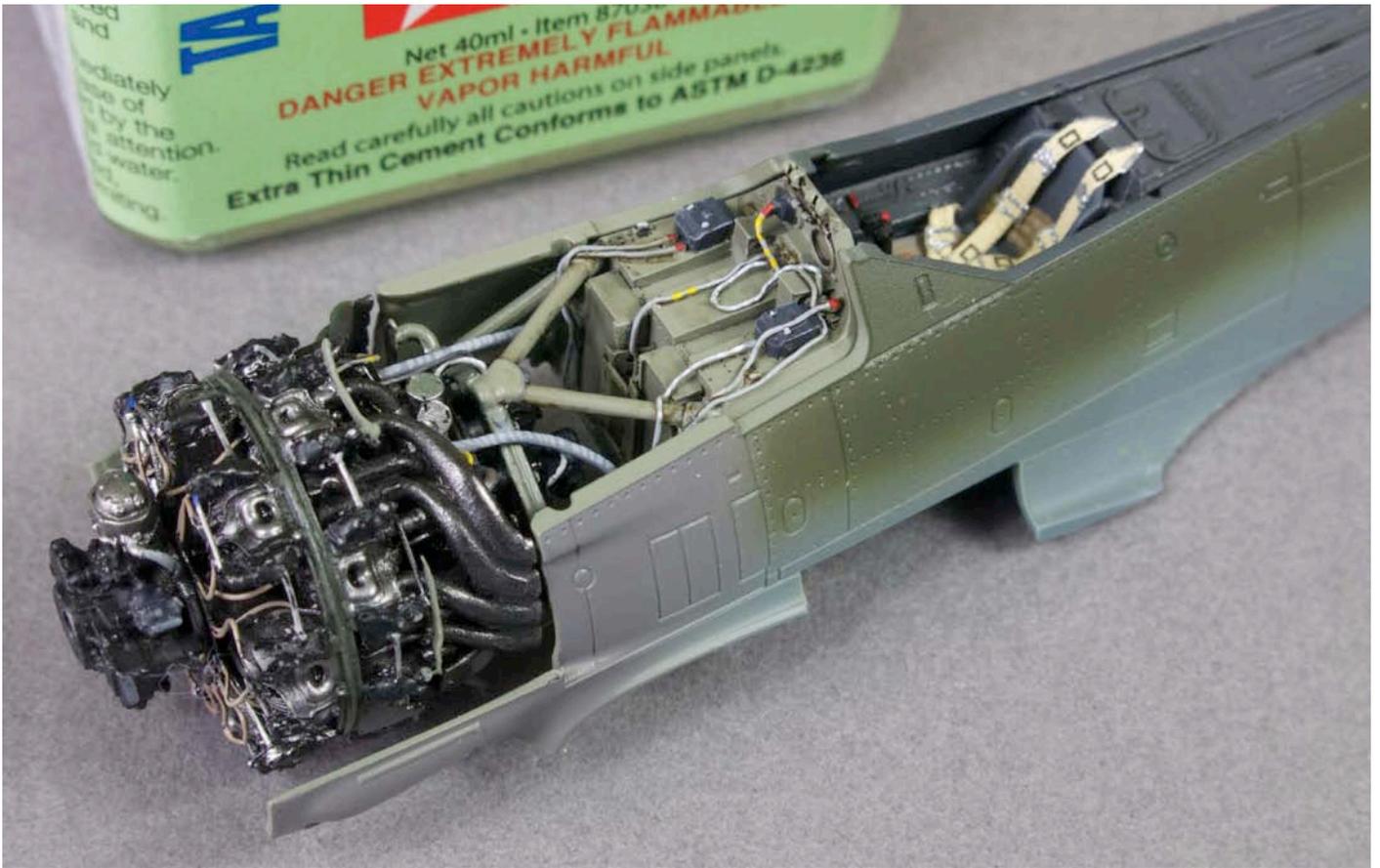


The engine bearers need to be carefully cleaned up and then glued accurately into place so that the engine will locate properly, later on. Note the detail inside the cowling ring.



The fully painted engine and firewall assembly. The engine was painted in one piece, Alclad II lacquers being used to create the metallic finish, Games workshop metallics and Vallejo acrylics being used to add the details. The firewall was airbrushed with Gunze Sangyo RLM 02 and then detailed with Vallejo, different shades being used to accentuate the features and then colours, to bring out the details. Note the additional cables, all added using fine lead wire. The bottle of Tamiya Extra Thin Cement gives a fair idea of the — small — size of this sub-assembly!





The engine has been fixed in place. Before doing this the surrounding panels were airbrushed in their relevant colours to cut down on the need for complex masking later on.

◀ to really go to town on this model and so used Eduard's Brassin 'Engine & Fuselage Guns' and propeller to replace the basic parts supplied in the kit. These two sets - as you

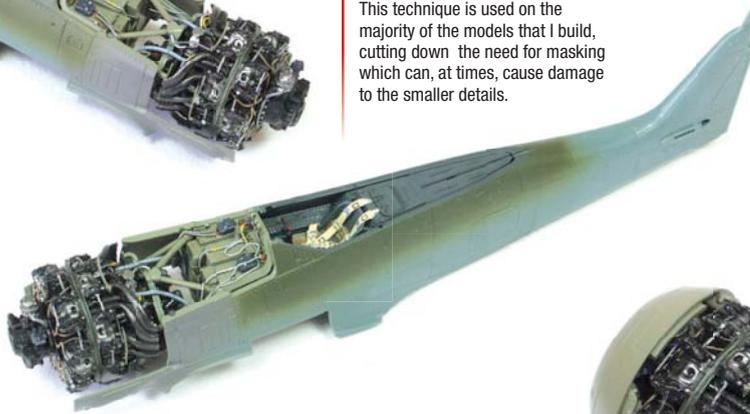
can see in the accompanying images - are extraordinary models of the aircraft's BMW801 power plant, armament and prop, exhibiting tiny details that only become apparent once

painting starts. Though adding immeasurably to the complexity of the model, the use of these details pushes this model project into the advanced category, the construction of ▶



Two views of the fuselage show how much of the fuselage I airbrushed before fixing the interior in place. This technique is used on the majority of the models that I build, cutting down the need for masking which can, at times, cause damage to the smaller details.

"I decided to really go to town on this model and so used Eduard's Brassin 'Engine & Fuselage Guns' and propeller to replace the basic parts supplied in the kit"



The wings and fuselage have been joined. The fit was very good, needing little more than a smear of Tamiya Extra Thin Cement to hold it all together. No filler was used around this model, only liquid glue and once-over with sanding sponges being needed to produce a perfect finish.



Almost ready to paint! Quite some time was eaten up getting the model to this point!



KIT BUILD

SKILL LEVEL: ADVANCED



The level of detail possible from this kit is easy to see in these shots. Though extremely fiddly, with care, this model can form the basis of a highly detailed replica of this famous fighter.



As part of their etched set, Eduard supply replacement undercarriage doors, another set offering new wheels which were also used here. Both of these add-ons offer a higher degree of finest over the plastic parts, especially the new doors, which appear to be almost scale thickness!

The kit supplies a set of canopy masks, so these were used to protect the glazing prior to airbrushing them first with the interior RLM66 and then the exterior camouflage colours.



All together now and ready to be painted.

Separate control surfaces further add to the complexity of the model. Each was carefully deflected, using my reference photos to guide their position.

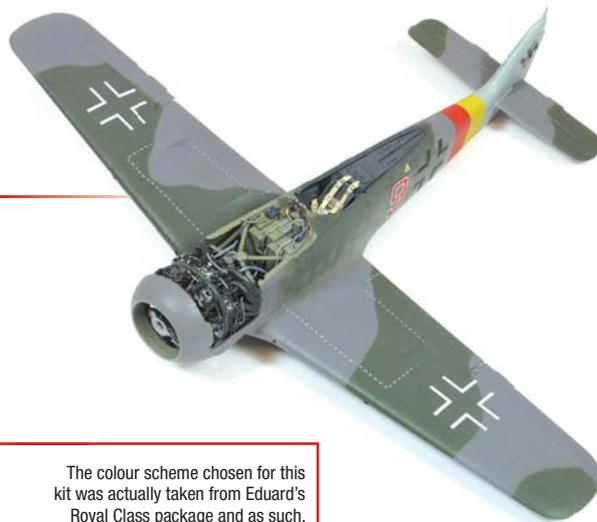
The cowling ring has been glued in place. This was easily the most difficult aspect of the build, VERY careful alignment of the engine, side panels and ring, being needed to create a perfectly aligned assembly. Despite all of this care, I first glued it in place out of line and then had to break it away and refix it. Even now, I'm not sure that it is perfect...

The undercarriage and flap bays were first airbrushed with a layer of RLM 02. Each was then masked with either Tamiya masking tape or in the case of the wheel bays, Silly Putty.



Before applying the remainder of the camouflage, the fuselage band was applied. First, the area was sprayed white, then yellow, masked and then airbrushed in red. This was then masked once more before spraying the rest of the airframe.

The camouflage pattern on the wings and upper fuselage was defined with thin rolls of Blue Tack to create a semi-sharp edge.



The colour scheme chosen for this kit was actually taken from Eduard's Royal Class package and as such, represents 'Red 9' as flown by JG301, Northern Germany during May of 1945. The colours are typical of the period: RLM 74 and 75 camouflage over RLM 76 undersides, with 74/75 mottling on the fuselage sides and tail. All colours came from the Gunze Sangyo Mr Hobby range.

the engine alone requiring some well-honed skills - even if just from adding the wiring harness! In order to use the replacement engine, the fuselage halves need to have panels removed, all of which is described in the Brassin instructions. To do this, I used a fine RB Productions razor saw and No.10A scalpel blade, fine sanding sticks being used to clean up the surfaces before moving on. The propeller is less demanding and would be a neat improvement over the basic kit parts,

each resin part being almost ready to use, a clever jig being supplied to ensure the blades are correctly positioned.

The wings are well-moulded and designed to include realistically deep wheel bays, gun barrels and separate ailerons. Assembly is easy and fit precise, very little clean-up being needed prior to painting, only the line for the hell bay needing some careful pavement and attention from the glue brush. In order to keep everything as detailed as possible, the gun

barrels were replaced with short lengths of Albion Alloys micro-tubing, but other than that, the wings were built from the box.

The wings are joined to the fuselage before gluing the rudder and tailplanes in place. The tailplanes are supplied with their elevators moulded in situ, so these were carefully removed with a scalpel and glued in place at slightly deflected angles - a simple step that further adds to the candid look of the completed model.



Almost there! The application of paint around the open engine bay, before the engine was fixed in place, certainly cut-down on some tricking masking!

The undersides are a simple mix of RLM 02 interior bays and RLM 76 exterior panels. Note the open engine bay.



The Brassin engine set includes a full complement of access panels. These are very delicate and perfectly in keeping with the scale of the model. As such, care needs to be taken when removing their casting blocks/excess resin.



The model is now all complete. Weathering took the form of simple applications of Raw Umber washes, oversprays around panels with a VERY thin mix of Tamiya Flat Black and Red Brown and delicate chipping applied with a Prismacolor pencil. Care needs to be taken when fixing the engine covers in place, tiny drops of superglue, applied with a length of wire, being used to hold everything in place, before blending all of the paintwork together.

The model was sprayed with several layers of X-22 Clear and then the decals applied with the aid of DACO's Strong setting solution. Once dry, the model was sprayed with several thin layers of Vallejo Flat Varnish thinned with Tamiya X-20A Thinner.

BASE



ABOVE LEFT: Having finished the model, I decided to make a small base for it - here are the two sections: a wooden plinth, and a square of tarmac and grass.

ABOVE CENTRE: My good friend Alex from Uschi Van der Rosten had sent me some of his beautiful, printed hardstanding sheets, so I decided that I would try one of those out.

ABOVE RIGHT: With the sheets laid down onto a measured square of mount board (held in place with double-sided sticky tape), some PVA glue was applied and then this wet adhesive was sprinkled with static grass and left to dry. Although the grass looked reasonably fine at this point, it was decided that in order to have it match the look and finish on the model, it would be painted, so the ground was airbrushed in Tamiya Flat Earth and then the grass in NATO Green, highlighted with Yellow Green. The edges of the card could then be sprayed in Flat black, before gluing the card sheet to the chosen wooden base.



FINAL VERDICT

The model is completed by the addition of the undercarriage, a choice of fuel tank or underfuselage bomb and then choice of either flat, or blown canopies depending on the aircraft you have chosen to build. From the Profipack kit that we are looking at here, you have a choice of five different aircraft. The choices are as follows:

- A. IV./JG 5, Herdla, Norway, Spring 1945
- B. Maj. Walter Dahl, Stab/JG 300, Jüterbog, Germany, December 1944
- C. Uff. Julius Händel, IV./JG 54, Poland,

August/September, 1944
D. Lt. Gutav Salfner, 7./JG 300, Lobnitz, Germany, March, 1945
E. W.Nr 380352, 1./JG 11, Darmstadt, Germany, Spring, 1945

The decals and painting instructions are detailed and comprehensive, all colour call-outs being tied to the Gunze Sangyo range of paints. Though we chose to be awkward and build something a little different(!), the choices are neat and colourful and cover a wide spectrum of different schemes and markings. ■

Eduard's new family of Fw190s is a fine addition to their range of 1:72 kits. Thanks to their ease of assembly, low price and innate levels of detail and accuracy, fans of this aircraft will be delighted by each addition to the collection. Having now built the kit, I can assure you that as a project -- even from the box -- this is as pleasing as it gets, the resulting model being a fine addition to the display case. But it is when you dig into the range a little further to add the details that things start to really get interesting! This project features almost everything that Eduard produce for the kit and though that creates an expensive model, I know that I will -- in probability -- never build a more detailed model of this aircraft, in this scale. And that makes the time taken to build the model and the expense needed to so, worthwhile. I really like this kit and know that you will, too. Your biggest problem will be keeping it down to one, this particular scribe already looking to build at least one more. Or two. Or three... Thanks to Eduard for the kits used this month.





**UPGRADED
MOULDS**

**Super decals sheet and
Photoetched fret included**



Mirage III E/R

1:32 scale
échelle

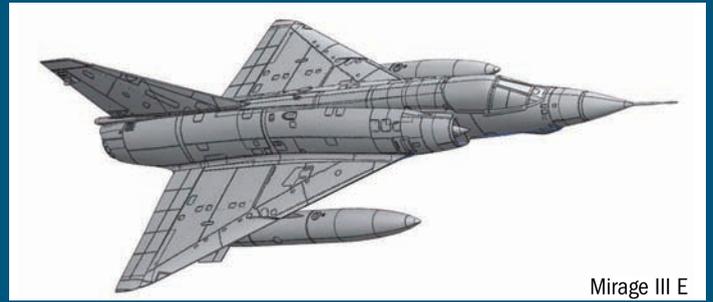
N. 2510 model kit
modèle réduit



Mirage III R (version 01)



Mirage III R (version 02)



Mirage III E

2712 H-34.GIII/UH-34J 1:48



**FULLY
UPGRADED
MOULDS**

Super decals sheet for 2 version
color instruction sheet and
Photoetched fret included



2733 H-21 Shawnee "Flying Banana" 1:48



**100%
NEW
MOULDS**

Super decals sheet and Photoetched fret



1383 Wellington MK.IC 1:72



Super Decal Sheet for 5 and 1 versions



KIT BUILD

SKILL LEVEL: INTERMEDIATE

SCALE
1:48

SPECIFICATION

Great Wall Hobby MiG-29SMT
Kit No: GWHL4818
Materials: IM/PE
Availability: Hannants

BEFORE STARTING:

- Liquid cement (MEK)
- Superglue - gap filling
- Mr Surfacer 500
- Mr Dissolved Putty
- Tamiya Basic Putty
- Tweezers
- Scalpel, Sanding sticks, Micromesh, polishing pads
- Kip masking tapes
- Flory Sanding Sticks

PAINTS USED:

Mr Hobby Acrylics
Badger Stynglrez Primer
Micro Sol
Ammo of Mig Grey Filter, Matt Varnish, Metal Acrylic Colors

Ever since I saw the MiG-29 perform at the Farnborough air show I've wanted to model one of them. Who can forget that tail slide? However, being a lazy modeller who dislikes the building phase I only want to make modern, state of the art, exceptionally well fitting, accurate kits, which has meant I have waited a long time to build one! So, as soon as Great Wall Hobby announced their MiG-29 9-12 and

9-13 series of kits, I ended up building first was the 9-12 'Early' as I fancied that in the classic early Soviet scheme that I witnessed at Farnborough - and I loved every minute of it. When GWH released the 9-19 SMT version I jumped at it, unfortunately, due to various reasons I ended up with the kit sat on the shelf for quite a number of months (my sincere apologies to Spencer, Great Wall Hobby and Creative Models the distributor). However, when I eventually ▶



BUILT AND WRITTEN BY JAMIE HAGGO

FULCRUM

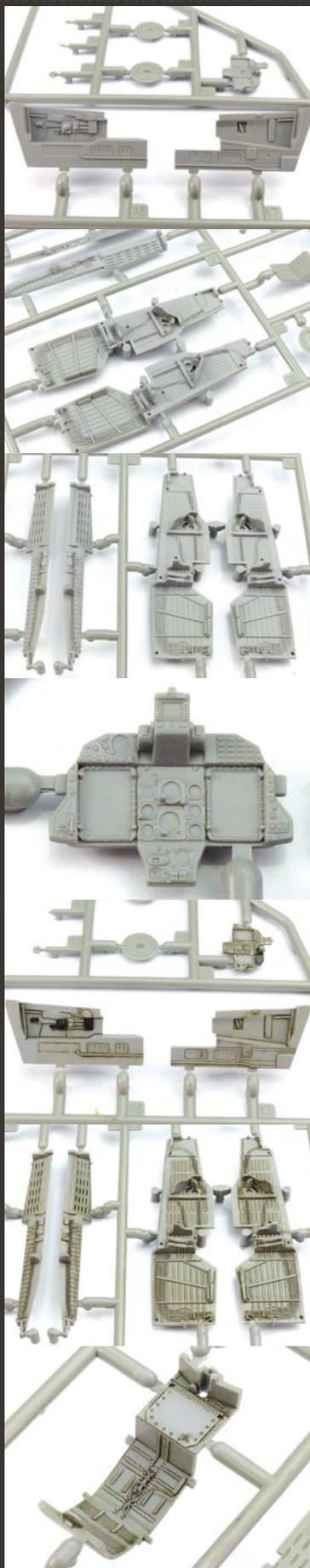
Jamie Haggo builds Great Wall Hobby's superb MiG-29SMT



"I only want to make modern, state of the art, exceptionally well fitting, accurate kits"

KIT BUILD

SKILL LEVEL: INTERMEDIATE



The cockpit side wall detail is lovely, a good omen of what is to come.

Wheel wells are a focal point on the model when viewing the underside of the model and Great Wall Hobby has done a stunning job here.

This is the new instrument panel and amazing it is too. Look at that detail crying out for a decent paint job.

Hogwash is a new enamel wash from Alclad and very good it is too in highlighting the raised detail and adding a layer of grime.

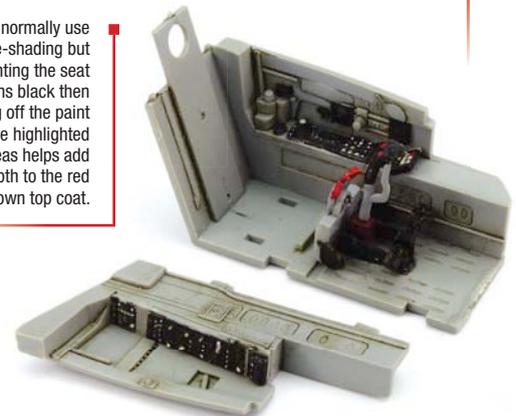
It also does a great job in those stunning wheel wells.

In the nose wheel well we see a manufacturer at the limits of moulding, this is stunning detail brought to life with the Hogwash.

No doubt photo etch will refine the detail but straight from the box it easily passes muster.



I don't normally use pre-shading but painting the seat cushions black then sanding off the paint in the highlighted areas helps add depth to the red brown top coat.



◀ pulled it off the shelf I quickly realised what a lovely kit this was even though at times it didn't always go quite to plan due to my clumsiness, as you'll see...

The kit

What a stunning package! Awesome box art adorns a slightly unusual box, it is end opening, has the stencil layout on the reverse but inside is the sturdy tray type box that houses the

contents. As with the other variants, the upper fuselage has its own inner box which is a neat way of protecting it. The main parts are very crisply moulded showing no flash although there are some inconvenient ejector pin marks, all of which are easily dealt with. The panel lines are very fine but I would say too fine in certain areas such as the engine nacelles as they will struggle to hold a wash, forget the wiping technique! Clear



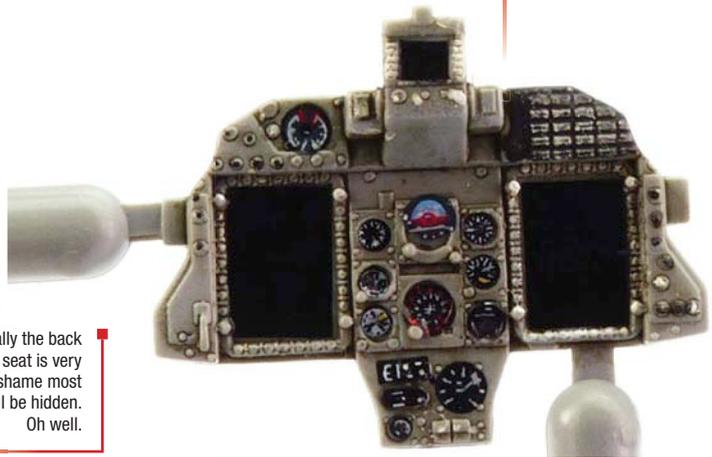
Now that's what I call a stunning instrument panel. Each instrument has an individual decal and you owe it to the designer to do a careful paint job. This is one of the best aspects of the kit!



Not bad actually although if doing an open canopy I would probably invest in a resin replacement.



Actually the back of the seat is very nice, shame most of it will be hidden. Oh well.



parts are stunning being crystal clear with no mould seam lines present (the lines in the windscreen are deliberate as they are internal strengthening panels present on the real thing); GWH even have a bit of protective tape over the main canopy. The two types of missiles are a delight, being one-piece slide-mould technology, boasting the best detail in the business, they are equal (or indeed superior) to any resin aftermarket parts. The decals look stunning too (more at the end of the article) plus, there is a small photo-etched

sheet including a seat harness, intake bits, HUD and other minor bits and bobs. All in all a lovely looking package.

Construction

I decided I would build this model straight from the box with only one minor concession to the aftermarket, namely a brass pitot probe from Master. I planned to have the canopy closed on this one, not because of cockpit detail, far from it as the office is stunning, but more that my '9-12' model had an open canopy and I

wanted to keep that hump-backed look so typical of this new version.

Undercarriage bays

Not being a sheep and following the pack, construction actually starts with the lovely undercarriage bays. The detail here is beautiful, especially when painted using Mr Hobby paints which dry to a rock hard, smooth finish that enables a wash to really pop the detail. The few parts fit very nicely which is only to be expected. A little fiddling is needed ▶



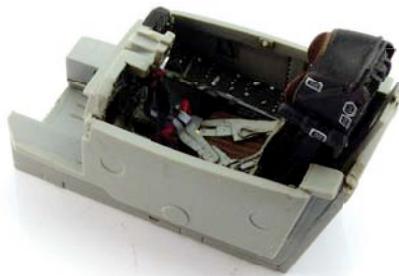
KIT BUILD

SKILL LEVEL: INTERMEDIATE

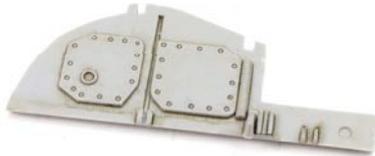
Only three parts make up the nose wheel bay, but combined they look very nice indeed.



All buttoned up its quite hard to photograph but I include this photo to demonstrate how the tub slots together.



The main wheel wells are only 2 pieces. It's an awkward shape but again, that detail...



With the wheel wells glued in place the instructions would have you add the control surfaces. I added them later on. Note all the holes which need opening, don't forget or you'll be cursing yourself later.



to get the main gear bays to fit perfectly but the nose wheel bay slots in hassle free.

Cockpit

This is a gem. The parts are highly detailed and crisply moulded, so benefit from a careful paint job. The base coat is again Mr Hobby, but I elected to hand paint all the details (normally I'll mask and spray as much as I can). The instrument panel has decals for the instruments that need applying but they go on really well as the pictures demonstrate. The modeller has the options to depict power 'on' or 'off' with regard to the Multi Function Displays, but unless adding a pilot, I would suggest choosing the powered off decals.

The sub-assemblies had a wash using the new Alclad Hogwash which is pretty neat stuff. A coat of Ammo of Mig acrylic varnish dulls everything down and brings it all together. I didn't bother glossing the instruments as the canopy was to be closed on this one.

The seat is pretty good for plastic although the resin blokes won't be quaking in their boots. The bits were put together and painted with Mr. Paint Black lightened with White, which leaves a nice, very dark grey tone, ready for a black wash (Ammo of Mig) and the decals. The cushions were red brown on these later aeroplanes (earlier Migs have black, or sometimes green, cushions) so were painted up accordingly, but the main seat had

a cheeky drybrushing before they were added. Once the fiddly etched seat harness was made up, painted and glued in place, the whole lot was sprayed with Mr Paint satin varnish.

All in all, it's a lovely little cockpit. The only real advantage of using photo-etch would be on the cockpit sills and canopy if you wanted to go down the open route.

Fuselage

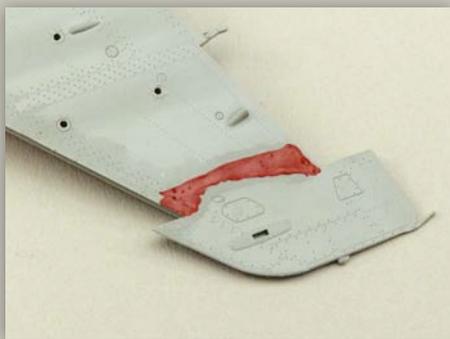
The fuselage and wing halves are brought together, sandwiching the cockpit, wheel wells and optional upper intakes (open or closed). Do not forget to break out the pin vice and open up all those holes first though as there are quite a few of them and I guarantee



It's much easier to deviate from the instructions and to join all the components which make up the nacelles first.



Gap free wheel wells, not overly straightforward to fit, but once in they look great.



Filler was required on the wing join, my filler of choice being super glue, talc and pigment (for contrast). The talc makes it much easier to sand preventing it from drying rock hard.



A Flory Models skinny sanding stick is a very good tool for gently matching up the contours of the nose cone. It's very slight but will be noticeable after painting if you don't do something about it.



My approach to the back end is to leave off the engines (apart from the rear mountings for the nozzles hacked off with a razor saw).



The photo etch hides a nasty join in the intakes. This will later be sprayed in a natural metal colour.



Badger Stynylrez is sprayed on to check the repair work on the wing tip join.



Clamps and an ingenious use of some tweezers help to minimise gaps on the nacelle join.



KIT BUILD

SKILL LEVEL: INTERMEDIATE



◀ some rude words will come out if you forget! The fit towards the front is very good indeed but a small amount of filler was needed at the back end (see the photos). The joint for the wing is not at the end; this preserves the fine detail on the wing tip, but means the joint inboard is less than perfect. It's a straightforward fix though with a bit of your preferred filler, mine being a mix of superglue, talc and pigment (for contrast. A quick rub down and 30 seconds of re-scribing, completed the job). The option of open airbrakes was not taken here to keep the clean lines of the airframe so I glued them shut. The interior is great but Eduard's set lifts it still further for those so inclined.

Airframe

The separate flaps and ailerons (unusual to have ailerons these days in modern fighters!) should be sandwiched in between the two halves although as I did they can be left off until later in the construction.

A definite weak point are the tailerons with their attachment points being small pins. Mine didn't last long so I ended up drilling the attachments out and using Albion Alloys brass rod to strengthen them, but even that was dodgy: next time I'll use thicker brass!

Now for the engine nacelles and if there is a weak area of this kit it is here. First off are the ejector pin marks in the forward halves which are pretty hefty. This is not a problem if the engines are running as the upper intakes will be open and the main intakes shut, however, most will want the reverse albeit this is not mentioned in the instructions. The other option is to purchase a set of the Eduard photo-etch FOD guards, which is what I did on my earlier 9-12 model. On this one however I joined the two halves, then filled and sanded the pin marks which is definitely not recommended, deal with the ejector marks first! The instructions would have you add the front and rear bits separately however it's much easier if you join them together first as this makes it easier to make the join more accurate. Also, the fit to the fuselage is much improved. My last moan concerns the panel lines. These are incredibly fine, too fine for my liking in fact. You could always break out your favoured scribing tool to deepen them if you wish but a), scribing is not my strong point and b), I couldn't be bothered!

GWH supply two nicely detailed engines, but these end up being hidden. You could always cut open the nacelles, but you'll have a lot of detailing to do both in the fuselage and with the myriad of wiring that festoons these sorts of things. Mind you, for those diorama aficionados amongst us you could always mount one on the supplied engine dolly!

Here I used a bit of experience I had with the earlier kit. I found that the engines interfere with the fit of the nacelles. It's not a problem as the compressor faces at the front fit without the need for the engine and you can always hack off the rear bit for the exhausts

like I did (see the photos). There is no support in the rear fuselage, its pretty flimsy so to help eliminate the gap between the fuselage and nacelles I wedged some tweezers in to ease things together. I thought this was a really neat idea so I had a smug look on my face as I popped off for a cup of tea whilst it all set! Any small gaps were dealt with using Mr Surfacer tidied up with Mr Color Thinner and a cotton bud.

The nose cone was filled with Deluxe Micro Gravity (tiny little lead shot) and sealed with white glue. When adding this to the fuselage I noticed a slight step with the nose cone being ever so slightly too large. This was a simple job to blend it in with various grades of Flory Models skinny sanding sticks (if you haven't tried these you must, they are incredibly useful and I use them religiously).

Twin fins are a common feature in 4th generation fighters and these fit great. In fact, they cover up a large gap at the rear which may alarm you when you add the tail planes earlier in the build! This new SMT version has formation lights which are represented with small photo-etched parts. The extended flare dispensers should actually be placed on the wing, just inboard of the join with the fuselage; thanks to a member of my Scale Aircraft Weathering Facebook page for pointing this out (I would give you a name check but its spelt using Russian letters). However, they fit a bit better where I put them so I sacrificed accuracy for finesse of finish. Any small gaps had the Mr Surfacer treatment.

All that remained now was to add the few photo etch parts and the canopy. Well, that's not quite true: it was to try and find the static dischargers that I had snapped off and deal

unsuccessfully with the glue on the inside of the windscreen which had leached up by capillary action. That will teach me to get cocky and use Mr Cement S rather than my usual PVA canopy glue!

Undercarriage

Painting is by far my most enjoyable part of modelling, so before I start I get all the mundane jobs done. The undercarriage is very nicely detailed so it received a coat of paint and a wash. For those superdetailers there is plenty of wiring that can be added if you choose to. Along with this was the inside of the gear doors, these were then secured closed with Blu (or rather White) Tac. The wheels are awesome, featuring great detail and are weighted. The separate hubs (bemoaned by many but I much prefer them) were sprayed using Mr. Paint which nails that green colour!

The weapons as mentioned are truly awesome. There are mould seams, but these are easily dealt with a Flory Models skinny sanding sponge (used on the undercarriage too, a great bit of kit). They were primed then painted with Mr. Paint which gives an in scale gloss white ready for the decals and a wash using a light grey filter by Ammo of Mig. This last part had to be subtle as against the white anything else would look way too stark.

I wasn't intending to use the fuel tanks as they have raised panel lines around the circumference. I thought I'd make one up though just to see but was amazed to find that with care the seams actually cleaned up with no problem all thanks to those Flory sanding sticks again. So, with confidence I did the other one too; win!



Minimal Mr Surface is then required to neaten things up.



GWH (also part of the Lion Roar photo etch brand) supply a handy template for the formation lighting.



This is the airframe almost ready for paint, just a few bits to do.



Following a Stynylrez priming base coat, the nozzles were sprayed with Alclad Steel.



Various tones were used for that heated patina look.



KIT BUILD

SKILL LEVEL: INTERMEDIATE



At last, ready for the spray booth.



But not before this cheeky seam was dealt with using Deluxe Plastic Putty cleaned up with a wet cotton bud. It was the same on the other side.

A black primer will result in a thin, opaque, life like top coat. Ironically you'll use less paint as you'll stop as soon as it appears opaque, something which is nigh on impossible with grey primer. Oh, and none of that pre-shading or mottling I thank you, its not at all realistic with the 9-19 SMT!



Stynylrez goes down very smooth but as a matter of course I always polish between coats.

Painting

At last we can have some proper fun. These days everyone has been banging on about how awesome Badger Stynylrez primer is. Now, I don't usually use a primer if I'm honest. Normally I don't see the point as I check seams during painting (I know that's not exactly efficient at times) but I admit I will normally use Alclad primer if there's been lots of filling (rare as I shy away from these sorts of kits) or a lashings of photo etch. However, I thought why not try this stuff seeing everyone else seems to want to marry Mr Badger because his primer is so great. Well, this stuff is just fantastic! It's very thick but I sprayed it through my Iwata TR-1 with a 0.3mm needle and at around 20 – 25 psi with no problem. It goes down quite "speckly" as it is thick but after a few minutes it self levels and pulls itself into all that lovely detail. I am a convert! I chose black as this enables a solid top coat with a nice in scale effect to the tone of the paint. Even though it dries very smooth I did buff it up with a worn sanding sponge, I always do this as a matter of course as it keeps the subsequent paint layers nice and smooth.

Akan, at the time of writing, have just released a paint set for this camouflage however I didn't want to wait for the set to arrive, plus shipping costs from the US or Greece were quite expensive! GWH list GSI lacquers for the scheme and you have to mix the various tones, I only had the aqueous equivalents but they looked good to me. Each colour was laid done from light to dark masking using Kip tape each time to define the individual patterns. I didn't bother pre-shading, or fading and mottling; looking at all the pictures I didn't see any evidence of this effect on the real thing, even though some aeroplanes looked quite heavily weathered, so nice solid opaque





First coat done, those of you who enjoy masking will love this splinter scheme!



Coat number 2, the second custom colour.



Yes, I said quite a few unprintable words when I tipped the colour cup all over the fuselage. Good job it didn't take out all 3 custom mixed colours. oh hang on!



Rescued, phew!



And here is the finished base coat looking all neat. We'll have no inappropriate shading, fading and mottling here thank you!



Paint chipping was done using a fine brush and for me atypical restraint!



I constantly referred to the original in an attempt to keep the chipping authentic.



The panel line wash was actually done using a filter (a thinned wash). Here I am cleaning up the excess with a brush moistened in enamel thinner. I wouldn't recommend wiping the wash off as the panel lines are very fine in places and you risk removing the wash completely.



The decals were from the kit and performed beautifully. Here is the model after a flat coat.

coats were the order of the day.

I had just about finished the paint job when I felt something damp on my hand holding the airbrush, on looking down the colour cup had rotated and dumped its contents on my hand and airbrush. "No drama" I thought, "I'll clean it up, irritating but these things happen". I put the model down but to my horror, I had also spilled paint over the fuselage, on all 3 of the colours, all of which were custom mixes and none of which I had kept just in case. Cue lots of swearing! So, after I had cleaned up my hands, the airbrush, the bench and thrown away a pair of trousers I set about sorting out a sorry looking MiG. First off, the offending area was cleaned up using the ever-handy Flory models sanding sticks. Then, matching the paint by eye, I slowly repainted the offending areas. It worked, but it was annoying!

Some of these aircraft are quite badly chipped, but I wanted this one to be more

restrained (not like me at all). Taking a small fine brush and some Ammo of Mig acrylics I mixed up a pale blue shade to represent the underlying primer. Very slowly the chipping was built up constantly referring to photos of the real thing as I prefer to aim for realism rather than a stylised artistic approach.

The dielectric panels and nose were masked off and sprayed with the nose cone getting some fading and post shading. These being subject to some cool weathering effects evidenced by the photos. The gun panel was carefully hand painted using the new Ammo of Mig metallic acrylics.

The nozzles were glued together, but here I have a minor gripe. They are well moulded and very nicely detailed, but limitations in moulding techniques have resulted in some difficult seams. Still, I did my best. I'll let the captions do the talking as to how I painted these.

Owing to the shiny Mr Hobby paint it was straight to the decals next without a gloss coat (I was trying to minimise layers with those fine panel lines in mind). I had a bit of trepidation here as I tend to choose aftermarket decals or spray markings, but I needn't have worried; these were superb, conforming to all that lovely panel line and rivet detail with just a little encouragement from some mild Microsol setting solution and a sharpened cocktail stick. You can use them with confidence although watch out for the numbering, it gets a little confusing in places as some of the stencils (especially weapons and pylons) are numbered wrong.

Weathering

Ah, my favourite bit. I didn't want to go too heavy here so I used an Ammo of Mig Grey Filter for the panel line wash. It was touched into the detail, allowed to dry then the excess

KIT BUILD

SKILL LEVEL: INTERMEDIATE



Some subtle post shading with a very dilute grimy colour added to the weathering in the rear fuselage. Again I could have gone much heavier if I wanted to.



Although hard to see when sat on the shelf, the streaking in between the engines is quite subtle but important weathering. It was done by dragging back the wash using a flat brush moistened in thinner.

◀ removed using a moist brush. The advantage of this method is you can manipulate the wash with the brush along the really faint panel lines; it takes a steady hand but works well.

Some areas, especially the rear fuselage were a little more grotty so I went back to a favoured old technique, post shading. A thin mix of Tamiya Black, Red Brown and Sky Blue was used to build up the grime; again, I cannot stress constant referrals to the reference photos enough if you want anything remotely like a realistic finish.

Finishing Off

With a final matt varnish coat (Ammo of Mig) it was time to assemble the model. The weapon pylons were added (I used the wrong ones for the R73s so study the instructions properly, not like me) before the undercarriage. The main gear needed a bit of fettling bit clicked in for a nice sturdy joint. Then it was a matter of adding all the other bits and bobs, a breeze as they had all been pre painted and weathered. The more astute of you may notice I left off the photo etched strengthening strakes on the pitot; they looked too fiddly so I thought it would look neater without. The final note is I left off the supplied boarding ladder, it's very nice but I thought it might look odd with the canopy shut, plus it looks a little 'Heath Robinson' as it just lies over the refuelling probe! ■



FINAL VERDICT

This was a frustrating model. Nothing to do with the kit, far from it GWH has produced a stunning product packed with detail and innovation. But I managed to snap off the static dischargers, fit the wrong missile pylons, get some residue on the inside of the closed canopy, got glue on the inside of the windscreen and most frustratingly of all, tip paint all over it! Still, that aside I am actually very pleased with how it turned out and it looks every inch a mean SMT. Its an expensive model kit, but worth every penny. I hope they do some more variants, a 2-seater UB would be nice as well as some of the new naval variants.

LEVEL 5

NEW



Avro Shackleton Mk.2 AEW

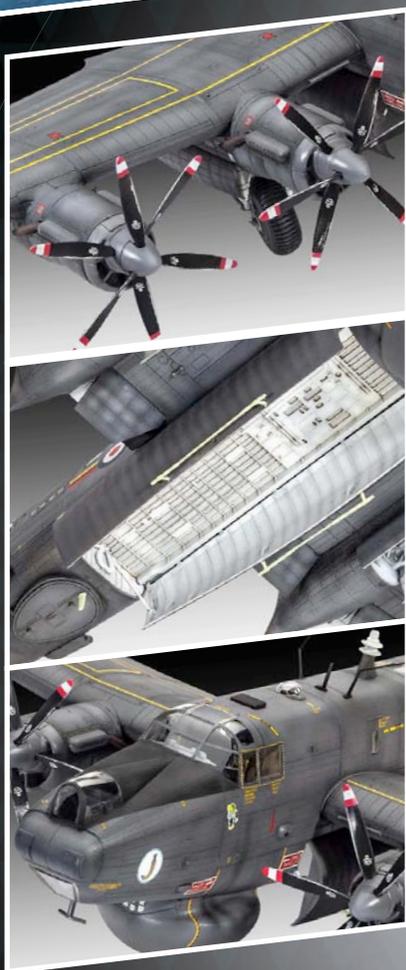
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THE FEARSOME 'FLOGGER'

Had the Cold War turned hot in the mid-1980s, NATO pilots would have been most worried about the new generation of Soviet fighters that were just beginning to enter service, aircraft like the MiG-29 Fulcrum and Su-27 Flanker. Although these aircraft extremely capable, they were only available in very small numbers, and the backbone of Warsaw Pact air power was provided by the variants of a single family of aircraft, the MiG-23 and MiG-27 Floggers. To this day Floggers remain on the front line. Many in the West rated the Floggers as easy prey for any halfway competent Western fighter pilot, capable of being bettered by every Western fighter from the F-4 Phantom II onwards, this proved to be far from reality.

A Swedish intelligence gathering aircraft photographed this MiG-23MF (Red 12) in its original overall grey colour scheme applied to many IA-PVO Floggers. The hydraulic fluid left from the 'swing-wings' has caused some heavy weathering.





1

1. For many years this was how the Flogger was seen in the West, grainy black and white images taken when the jets were intercepted on the borders of the Warsaw Pact. This Russian pilot is flying a fully armed Flogger-G. Note that it has the later wing design with swivelling pylons under the outer wing panels.

2. Stripped of their external pylons and sensitive under nose IR sensor six MiG-23MLs deployed to Finland in 1978 as part of a long-standing exchange programme.



2

At one time this view did not seem unreasonable, since it seemed to be supported by the combat reports of 36 Syrian MiG-23s downed by Israeli pilots over the Bekaa Valley in 1982, and then two Libyan Floggers shot down by US Navy Tomcats in 1989, the Flogger's reputation was at rock bottom.

These results were more a result of poor pilot training and tactics than what the MiG-23 was capable, it has to be remembered that these were simplified export variants of the aircraft, which lacked any BVR capability.

Fishbed Replacement

Design of the MiG-23 began in the early 1960s, when Mikoyan Gurevich OKB began studies for a replacement for its MiG-21 Fishbed tactical fighter. Aware of the shortcomings of the MiG-21, the Design Bureau wanted to produce a fighter with greater payload, range and firepower, with more powerful sensors to give freedom from the constraints of restrictive ground control intercept (GCI) control. The new aircraft was also to be faster, and faster climbing than the Fishbed. All these would result in a new fighter that would be larger and heavier and would mean increased field lengths and relatively poor take-off and landing performance – the key would be to produce a fighter with exceptional performance with an excellent STOL performance.

In a response to improve the performance of the new fighter, Mikoyan developed the Model 23-01, later designated the MiG-23PD, which was a conventional-looking supersonic design with a fixed delta wing and conventional tail planes, powered by a single main engine of a Tumanskii R-27-300 and two 'sustainer' engines for take-off and landing. These two Koliesov RD-36-35s were located in the centre fuselage and were intended only to reduce take-off and landing speeds. The type was never intended to be able to take-off vertically and after only 14 test flights it was concluded that the aircraft, now named Faithless by NATO

offered little advantage over the current MiG-21s then in service.

Typical of Russian practice at the time, another group of engineers within Mikoyan were working on an alternative approach to STOL performance through the use of variable-geometry wing, which could be swept at different angles allowing the pilot to select a low-drag, narrow-span wing for supersonic flight, or a longer-span, high-lift wing for slow speed and for optimum take-off and landing performance. This was examined in extensive wind tunnel testing and with a flying proof-of-concept aircraft, the Model 23-11. Results proved the concept work the project was the highest priority by the Russian Minister of the Aviation Industry, which stated that Mikoyan OKB was to construct a second MiG-23, equipped with a variable-geometry wing. Responsibility for the wing pivot design was assigned to the Rodina OKB engineering works.

Flight Trials

Thanks to the high priority, accorded to it, the 23-11 made its maiden flight on April 10, 1967, in the hands of Alexander Fedotov, who initially flew the aircraft with the wing fixed fully forward at 16°. On the next flight, on April 12, he swept the wings throughout their range, and on his third flew beyond Mach 1.3. In a matter of weeks, he was displaying the new aircraft to the public at Domododevo, where NATO assigned it the reporting name Flogger, although at the time they were unaware which design bureau had designed the aircraft.

The 23-11 was always intended to serve as the prototype for a production combat aircraft, and as such it was armed with four AA-7 Apex missiles under the wing gloves and fuselage. Sometimes AA-2 Atolls were fitted instead for trials work as the 23-11 still had no radar fitted.

Flight trials proved very successful and after 98 flights the prototype was handed over the air force along with two similar prototypes. The air force quickly realised the new type showed

“ The introduction of the MiG-23M, with its BVR missiles and radar, more powerful engine allowed the Soviet pilots to develop new tactics and procedures ”

REFERENCE FEATURE

Poland received 45 MiG-23MFs, with the first examples entering service in 1981. Early models wore the Russian Air Force overall grey scheme, although this example also has a white exercise band on its rear fuselage.



Czechoslovakia's liberalisation in the 1990s was accompanied by the strengthening of links with other European air arms. Here a MiG-23ML takes off from RAF Boscombe Down following its participation in the static park at the temporary home of the RIAT.



Libyan Floggers were regularly intercepted by the US as its carriers patrolled the seas. Fighters from the Sixth Fleet in the southern Mediterranean photographed this MiG-23MS Flogger-E.



A few years earlier, a US Navy F-4J shepherds a Libyan MiG-23MS away from its carrier battle group. Both aircraft are fully armed but there were established international 'interception rules' that needed to be followed.

great promise, with the aircraft capable of taking off within 320m, and having a landing run of just 440m. These distances more than meet the original STOL requirements.

On the strength of the successful flight trials the air force ordered three 23-11 prototypes, which were designated the MiG-23S, (MiG-23 was the air force designation for the Mikoyan Model 23-11). The production aircraft was intended to have the Sapphire radar (hence the S suffix) and a more powerful engine. However, development did not progress without problems, and while the more powerful R-27F2M-300 afterburning engine was ready, the radar was not. Accordingly, the RP-22 radar, known by NATO as Jay Bird, and similar to that fitted to the MiG-21S was adapted to fit the new interim fighter variant. The visual difference was minor but the loss of capability was profound. In a single stroke the MiG-23 was incapable of carrying AA-7 Apex missiles, and therefore lacked any BVR capability. The MiG-23 was reduced, for the time being, to carrying a semi-active, radar-homing version of the AA-2 Atoll, along with an IR-homing variant.

The first production variant of the MiG-23S made its first flight on May 28, 1969. The fifth aircraft had fit the interim radar fitted with very few problems. A batch of 50 MiG-23S aircraft was built between mid-1969 and 1970, after which production switched to the MiG-23M, which first flew in June 1972.

The MiG-23M (the M suffix merely stood for Modified) was the first definitive version of the MiG-23 family, since it was equipped with the intended S-23D-ch Sapphire (NATO High Lark) radar.

With the introduction of the High Lark, the MiG-23 was able to dispense with the ageing AA-2 Atoll, and was able to carry the AA-7 Apex, with two versions normally being carried: one IR-homing and one semi-active radar homing. These would be rippled-fired to increase the likelihood of a hit.

Improvements To A Legend

Experience with the MiG-23S, led to a host of

improvements, which significantly changed the appearance of the basic aircraft. NATO allocated the new variant the Flogger-B, with the Flogger-A being designated to the MiG-23S and 23-11 prototypes. The new MiG-23M was fitted with an autopilot, as well as a new sight and ranging system. Most obvious external change was the addition of ribbed airbrakes and the installation of the new engine the Khatchatourov R-29-300, with variable throttled reheat. This dramatically improved performance, and made the MiG-23 a 'hot' fighter by the standards of the day, where as the early MiG-23S was 'sluggish' and disappointing in its performance. Along with the new engine were modifications to the wing. This featured a new extended leading edge, which gave a significant leading-edge 'dogtooth' towards the wing glove. The horizontal tail planes were moved aft, which left a large gap between the trailing edge and tailplane leading edge. This increased control authority and reduced stability, which made the Flogger more agile in pitch. The rear fuselage looked significantly different, as the jet pipe was reduced in length.

Floggers To The Front Line

The introduction of the MiG-23M, with its BVR missiles and radar, more powerful engine allowed the Soviet pilots to develop new tactics and procedures. Firepower was improved further with the introduction of the AA-8 Aphid, short-range IR-homing missile in place of the Atoll, these were often mounted on twin-rail mounted under the fuselage. During the late seventies, Floggers were rolling off the production line at up to eight aircraft a week. Many of these aircraft went to Frontal Aviation for battlefield air superiority. They were the first Soviet fighters with a look-down/shoot-down capability. The aircraft operated in fours, flying under strict ground control to make slash attacks on enemy fighters and low-level bombers. The Floggers has a secondary ground-attack role, using unguided bombs and rockets. Substantial numbers of MiG-23Ms were also delivered to the IA-PVO, where the supplemented

MiG-21s and Sukhoi Su-15/21 Flagnos in the air defence role.

The success of the MiG-23M, particularly in VVS service, led to a demand for an export version of the aircraft; in fact, two downgraded export derivatives of the MiG-23M were manufactured. The first of these was the MiG-23MS, which was designated the NATO reporting name Flogger-E. By comparison with the MiG-23M, it differed by having an RP-22 radar and AA-2 Atoll missiles, but lacked the AA-7 Apex capability. In many respects this Flogger was no better than a late-mark MiG-21, but the prestige of operating a 'swing-wing' Russian fighter accounted for the type's popularity with Third World air forces.

The other export version of the aircraft was the MiG-23MF, which retained the Flogger-B reporting name, which was supplied in large numbers to a host of Warsaw Pact nations. Retaining High Lark radar, the MiG-23MF differed from the MiG-23M in detail only. The first examples were delivered to Bulgaria in 1978, followed by East Germany, Czechoslovakia, Poland, Romania, Hungary, Syria, Angola, Iraq and India.

The Need For A Trainer

During the Flogger's development, structural failure during a test flight on March 14, 1972 was traced to the wing root pivots and a leak in a fuel tank. New mechanical processes were introduced during construction along with improved quality control methods. The crack in the wing root had been caused by high g manoeuvres, the Flogger being rated to 8 g, but orders were issued for MiG-23S models to be limited to 7 g. Despite the attrition rate steadily increased and at one stage was so high that the Flogger gained a reputation similar to that of NATO's F-104 Starfighters.

It had always been intended to develop a two-seat version of the MiG-23. The development of the aircraft was first authorised in May 1968. Designated by the air force as the MiG-23UB (Uchebno Bitva, or combat trainer), the two-seater was designed from the start for both pilot training and for weapons training and operational use. Since the two-seater had no Sapphire radar, a separate guidance and illuminator pod had to be provided to allow the aircraft to fire AA-7 Apex missiles, and this was fitted below the starboard wing root, on the leading edge.

Other changes to the two-seater included the reduction of internal fuel capacity and the replacement of single-slotted trailing-edge flaps with twin-slotted flaps. All trainers were equipped with a number three wing, which reintroduced leading edge slats, and allowed the carriage of three external drop tanks. The rear cockpit was fitted with a retractable periscope to give the instructor a better view over the nose, and the head of the pupil, on take-off and landing.

Production of the MiG-23UB continued until 1978, and the aircraft remains in limited use with a few examples being retained as squadron 'hack' aircraft. For student's conversion to the MiG-23 Flogger was relatively simple as the cockpit layout was similar to the MiG-21's, and handling techniques in the pattern were similar.

Upgrades...Upgrades...

The MiG-23 family has always the subject to constant upgrading, and by 1976 a new fighter

variant was ready for production and service. Designated the MiG-23ML by the Russian Air Force, the new aircraft was developed from the Flogger-B, but featured improved aerodynamics, avionics and other systems associated with improving capability and performance. The MiG-23ML was the first production variant to take advantage of a host of improvements designed by Mikoyan to provide better handling qualities, particularly at high-angles-of-attack, to improve manoeuvrability, to increase g limits and to improve combat capability.

The airframe of the MiG-23ML, was lightened by removal of the fourth fuselage fuel tank (added to the MiG-23M). This improved directional stability and allowed removal of the dorsal fin fillet and a reduction in side of the folding ventral fin. The opportunity was also taken to install the Khatchatourov R-35-300 turbojet, equipped with afterburner.

The MiG-23ML's navigation system was redesigned and the Sapphire radar received a host of improvements gaining a new dogfight mode, an improved display and easier switchology. The ageing IRST was upgraded becoming the TP-23M. This required enlarging the IR fairing below the nose. On the new variant the SRO-2M 'Odd Rods' ITT antennas were moved aft, and the AoA vanes and some air-data probes were relocated. The new RWR fairings were added to the rear fuselage, ahead of the ribbed airbrakes.

Despite the many improvements, tactics remained unchanged, although the VVS began to place greater emphasis on autonomous action in the close-in engagements that occurred if or when targets survived the initial BVR engagement.

No exact date for the maiden flight of the MiG-23ML is known, but it was certainly during 1976, the same year the aircraft entered its five-year production plan. The new variant made its public debut in 1978, when a six aircraft detachment from Kubinka, Moscow, led by Lieutenant Colonel Belenkov, visited Finland as part of a long-standing squadron exchange programme. These aircraft were stripped of external pylons and did not carry the sensitive under nose IR sensor. Observers at the time mistakenly concluded that these aircraft were a new downgraded expert version of the MiG-23, assigned the NATO reporting name Flogger-G.

Exported But Not Excellent

The Flogger-G was exported to North Korea in late 1984, then to Czechoslovakia and East Germany, where the new variant partly replaced and partly augmented existing Flogger-Bs. The MiG-23ML was, in 1981 when production ended, the last major MiG-23 fighter variant, although it served as the basis of the later MiG-23MLD conversion. Flogger-G saw action in Afghanistan with the Soviet Air Force. One regiment, some 45 aircraft, was deployed to Kabul and later Bagram during 1986 and 1987. The Floggers served exclusively in the ground-attack role, with the likelihood that the MiG-23ML's performance capabilities in the strike roll were being evaluated at the same time.

Further Flogger variants the MiG-23MLD were developed, but were not new builds, these were conversions based on the airframe of the MiG-23ML. The new variant offered improved handling, new leading edges to the wings, chaff/flare dispensers with automatic actuation by the RWR system, swivelling pylons under the outer



Wearing the later style Hungarian Air Force 'arrowhead' on its tail fin, this MiG-23UM is painted in the locally applied sand and drab camouflage. Note that open airbrakes at the rear of the fuselage.



Near the end of their operational service the Czech Air Force wore a wealth of elaborate schemes including this Tiger Meet inspired MiG-23ML.



MiG-23UBs served with every MiG-23 and MiG-27 unit in the Soviet air forces including those in the IA-PVO, and with most MiG-29 and Su-27 regiments too.



The MiG-23UBs became the equivalent of the MiG-15UTI Midget of the 1980s and 1990s, having become a great all-round hack and trainer. Most were painted in the standard green and brown Frontal Aviation camouflage.



One hundred and forty MiG-23BNs were delivered to the Czech Air Force, with the first arriving in 1979. Many served with the 28th Fighter Bomber Regiment at Caslav, Headquarters unit of the 34th Fighter Bomber Division. In the final years of the Cold War these Floggers would have been expected to attack NATO troops concentrations and armoured formations.

REFERENCE FEATURE

◀ wing panels, which allowed the wings to be fully swept even when these pylons were being used. A helmet-mounted sighting system for the pilot, similar to that used on the Fulcrum and Flanker was also introduced. NATO designated the model the Flogger-K. With these improvements the jet was now also able to carry the new generation of Soviet missiles; the AA-10 Alamo and AA-11 Archer.

Reach Out And Touch Someone...

Archer AAMs marked a tremendous leap in capability for the Flogger. Finally, the aircraft had an all-aspect capacity, the AA-11 having control fins fore and aft and a vectoring rocket motor nozzle allowing incredible agility for the time. Many analysts believed that with its five-mile range and 33lb warhead the missile was better than the West's AIM-9 Sidewinder.

This armament when combined with the Flogger-K, which could also carry the AA-10 Alamo marked even greater increase in capability since the missile had a genuine BVR fire-and-forget mode.

At the time the West was desperate to find out the true number of early generation MiG-23s that were being converted to Flogger-K, the type was viewed by those within the intelligence community, with the same amount of fear as early generation MiG-29s then entering service.

Elements of the upgrades used in the Flogger-K were incorporated, amongst MiG-23Ms/MFs and even MiG-23Ps, but none were as capable as the MiG-23MLD variant. None the less Mikoyan continued to develop the 'fighter' Flogger in an effort to ensure the type was at least equal to the new generation MiGs then entering service in the late 1980s.

Counting By Numbers

While many of the Floggers that entered service with the Soviet Air Force and its client states were dedicated air interceptors, many did have a secondary ground-attack role from the outset. It was simply looked upon by those operating the new 'swing-wing' fighter as a minor role, that other types within their inventory could fulfil.

But for MiG, when looking at the West's SEPECAT Jaguar and Northrop F-5 saw the potential that these 'cheap' strike aircraft offered and set about modifying the Flogger design to a supersonic ground attack aircraft. Despite sceptics within the air force, viewing the entire project as a waste of time, the new MiG-23B was a minimum change version of the MiG-23S. The main modification was to the forward fuselage. Dispensing with the Sapphire radar, and replacing it with a less bulky PrNK Sokol 23S navigation and attack system, Mikoyan designed a more slopping-nose allowing the pilot a much better view forwards and downwards. The nose shape was distinctive, and quickly led to the new aircraft gaining the nickname 'Duck Nose'.

A new engine was selected, optimised to operate at lower altitudes, the Lyul'ka AL-21F-300. In reality the new attack aircraft was the rear fuselage of a MiG-23M, with the same

shortened tailpipe and rear-located tail plane with the No.2 wing.

Battlefield Mods

Specific modifications for the low-level, ground-attack role included the provision of scabbed on armour plate next to the cockpit, and inflammable fuel tanks using an inert gas. Armament focussed on bombs ranging in weights from 100 kg to 500 kg carried on hard points on the fuselage and wings.

Only 24 examples of the MiG-23B were built, before production switched to the MiG-23BN. This latter variant differed by having an improved navigation suite and the same engine as the MiG-23M. NATO assigned the reporting names Flogger-F and Flogger-H respectively.

However, in Russian service the MiG-23BN proved a disappointment, and was widely exported to client states, with at least two airworthy examples finding their way to the USAF (see separate panel) at Area 51.

Further variants of the basic MiG-23BN were also coded Flogger-H, but were designated MiG-23BM, MiG-23BK by the Soviets. The MiG-23BK was similar to the MiG-27K, sharing the same basic navigation suite and avionics. These later MiG-23s used many weapons intended for the MiG-27 and were used as 'force multipliers' within an attack force.

Operationally, aviation critics dismissed the Flogger as a typical low-tech massed produced fighter for the vast ranks of the Warsaw Pact. But it wasn't until nearly two decades later when the Israeli Air Force received a MiG-23ML Flogger-G, on October 11, 1989 from defecting Syrian Air Force pilot Major Adel Bassem when he landed at the small civil airport at Megido in the north of the country that a 'true assessment' of a MiG-23 could begin. It was found that the MiG-23ML's performance was better than Israel's front line F-16s at the time. What the Flogger's lacked were pilots who were allowed to use their own initiative in a dogfight and not be tied to ground control intercept GCI radar facilities on the ground. Unbeknown to the West, NATO had a right to 'fear the Flogger'.

USAF Floggers

Between 1977 to 1988 the 4477th Test and Evaluation Squadron operated up to ten variants of MiG-23BN and MiG-23MS within the vast Tonopah Test Range in Nevada as part of the Constant Peg programme. The 'Red Hats' lost two MiG-23s during testing. While the full details have not been fully declassified, the MiGs were covertly flown against selected USAF fighter squadrons during exercise Red Flag, additionally specially selected USAF squadrons deployed to Nellis AFB, Nevada to 'fight' with the jets. None of the MiGs undertook weapons trials or fired missiles during the secret programme. It is a testament to how classified Constant Peg remained within the USAF and USN in that countless fighter pilots flew against the MiGs and passed on what they had learnt to squadron colleagues in the in their squadrons, but no security leaks were ever uncovered. ■



A MiG-23MLD Flogger-K wears the final camouflage scheme for the aircraft, which was applied in a completely random pattern – no two aircraft matched, even on the same regiment. The Flogger is armed with an AA-7 Apex under the wing and AA-8 Aphids on the fuselage hard points.



Bulgaria received the MiG-23BN to replace the ageing MiG-17s the first examples were delivered in 1977. A second delivery was made in 1980. The MiG-23BNs were seen as an elite unit within the air force.



Rare for a MiG-23UB, (Red 22) is not carrying any external drop tanks as it taxis out for a local training flight. The ventral fin is folded neatly away and was sequenced to extend down as the undercarriage is raised.



After re-unification a handful of former East German Floggers were evaluated at Manching, the home of testing for the Luftwaffe. The German MiG-23s were all painted in a three- or four-tone brown and green camouflage, with duck-egg blue and grey undersides. This MiG-23ML wears a small German flag on the tail.



This Syrian Flogger-G was extensively evaluated by Israel after its pilot defected. It is seen here in joint Israeli and Syrian markings flying in formation with an F-16I Sufa.

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EXTENDED

KWIK BUILD

SKILL LEVEL: INTERMEDIATE

SCALE
1:72

SPECIFICATION:

Sword 1:72 Jet Provost T. Mk.5
Scale: 1/72
Kit No: SW72089
Materials: IM and resin
Available From: All good online retailers
Price Guide: Around £12-@14 (UK)

BEFORE STARTING:

- Mr Cement S
- Tamiya Masking Tape
- Sprue Cutters
- Tweezers
- Swann Morton No3 Scalpel & IOA Blades
- Superglue

PAINT USED:

Tamiya Fine Grey Primer

GSI Creos Mr Hobby Colour:
H20 Flat Clear
H330 RAF Dk Green
H331 RAF Dk Sea Grey
H327 FS11B6 Red
H332 Light Aircraft Grey
Mr. Finishing Surfacer 1500 Black (jar)
Mr. Finishing Surfacer 1500 Black (spray can)
Mr Color Levelling Thinner

Tamiya
AS-12 Silver
X-2 Gloss
XF-1 Flat Black
XF-82 RAF Ocean Grey 2

Model Color Matt Black (169) 70.950

Windsor and Newton Payne's Grey oil paint
Poundland white spirit

Deluxe Materials Liquid Gravity (DLXB03B)
Airbrush Used : Iwata HP-C



We take a detailed look at the Sword 1/72 Jet Provost T.Mk.5

DOUBLE EDGED SWORD



My introduction to the Jet Provost goes back to the mid 1970s when Matchbox released their 1/72 Strikemaster variant. As ever with Matchbox, the exciting box art and exotic paint schemes were a great lure, not to mention being moulded in tan and pale blue plastic! It was also cheaper than the competing Airfix Jet Provost 5/Strikemaster released around the same time, the latter being one of Airfix's best kits from the 1970s and is still an excellent basis for a good model, with only the raised detail giving away it's age.

Sword have now weighed in with their own take on the JP5/Strikemaster in 1/72 and first impressions are positive - the main parts are well moulded in a hard grey plastic with very fine recessed panel lines though the smaller parts are often blobby and ill defined, but nothing insurmountable and only to be expected with the level of tooling Sword use. Decals in my boxing offered two RAF options: one for

No.6 FTS and the other for No.3 FTS "Swords" display team.

AN EDUCATION...

Sword supply optional cockpit items meant for the Strikemaster and as the parts are not numbered on the sprue, you have to match them up with the sprue diagram, and it was here the instructions drawings seemed at odds with the details on the kit parts. The cockpit floor and rear wall took a little figuring out to make sure they were all orientated properly before fixing together.

The neat little resin ejection seats were cleaned up and washed in some cold water and detergent, followed by a coat of Tamiya Fine Grey Primer. The seat body was painted matt black with the cushions picked out using Panzer Aces canvas colour. The other straps painted tan and blue where required, before a light wash of raw umber oil paint deepened the shadows just enough.

I sprayed the interior parts with Gunze Aqueous Ocean Grey which is a good match for BS381 632 Dark Admiralty Grey - in fact the latter is more or less the modern version of the former. The bezels were carefully picked out with Model Color matt black from the Vallejo range and I used some Airscale placards to dress the cockpit up a bit more.

The JP5 has minimal ground clearance and is a natural tailsitter, so considerable weight was added to the nose. I used Dextrux Materials' Liquid Gravity held in place with superglue, building up layers gradually and making sure I left the mating surfaces clear.

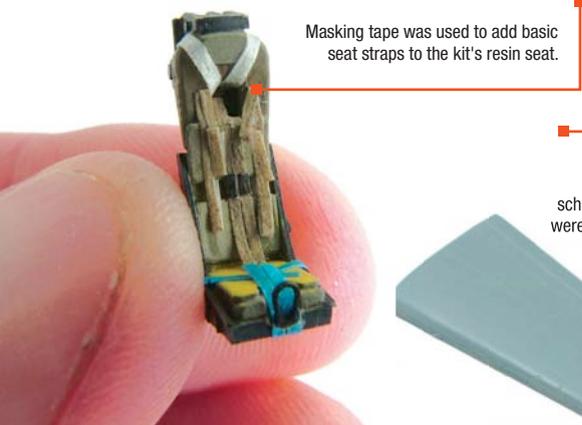
I wanted to do the Swords scheme so this meant removing the wing tip tanks. After checking the shape of the kit parts and area needing removal from the wings, I made some light cuts with a micro razor saw, gradually working along the plastic until the tip came free. To my surprise, the replacement tips required just a few small adjustments before being fixed in place with Mr Cement. I let this fully cure for a couple of days before filling small gaps with a superglue/black pigment mix and sanding this down. A few brushed coats of the black Mr. Finishing Surfacer 1500 and some further sanding yielded an excellent blend.

The intakes needed a little trimming at the rear in order to seat properly, and this necessitated bridging a slight gap with superglue. I added the lower wing to the fuselage first before adding the upper wings, ensuring I had the tightest fit at the wing root as possible. The remaining join required only a bead of Mr. Finishing Surfacer to plug a hairline gap. The intakes required

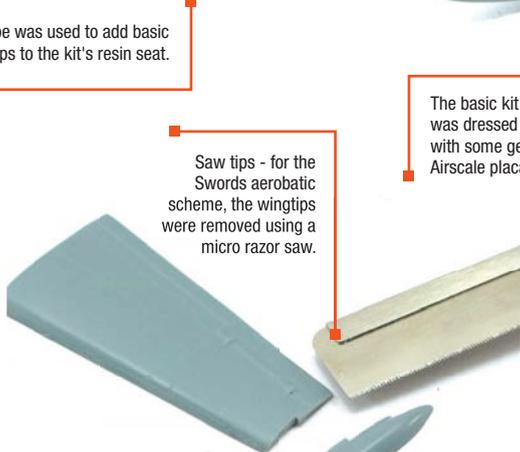
EXTENDED

KWIK BUILD

SKILL LEVEL: INTERMEDIATE



Masking tape was used to add basic seat straps to the kit's resin seat.



Saw tips - for the Swords aerobatic scheme, the wingtips were removed using a micro razor saw.

The basic kit cockpit was dressed up with some generic Airscale placards.



These were blended in with superglue and Mr Surfacer Black.



The fuselage halves clicked together, but the intakes would require further blending.

A drill was used to open up the locating holes for the tailplanes - all that sanding dust will have to go!

◀ a little more Mr. Finishing Surfacer 1500 and light sanding to blend them in.
The tailplanes are butt-joined via some pips and recesses and a test fit seemed a bit woolly so I drilled the recesses out on the fuselage before fixing in place with Mr Cement S. This gave me time to set them level before the solvent started to cure. A smear of black Mr. Finishing Surfacer was all that was needed to make sure the join looked like the natural panel break on the real aircraft.

TRAINING DAY

The JP5 was mostly finished in the standard RAF training colours of gloss white, BS381 627 Light Aircraft Grey and BS381 537 Signal Red. I needed a good base for the white – so I

sprayed it black.
This may seem counter-intuitive, black provides an instant contrast when airbrushing, so you are able to see how quickly the paint is covering. Modern day acrylics also have great opacity, so painting light over dark isn't an issue these days.
I gave the model some light coats of Mr. Finishing Surfacer 1500 Black from a spray can and then gently polished it down with some Scotchbrite. The white was Tamiya X-2 gloss, thinned 50/50 with Mr Color Levelling Thinner. The trick here is to build it up in successive light coats, watching how the thinner flashes off and then working the surface again. The high thinner content of each successive coat reactivates the surface

long enough to allow the paint to level off. The final couple of passes were wet coats of the 50/50 mix, again checking to see how the paint hugged the surface. The result was a dense white glossy finish using less paint than if I'd painted over grey – try it!
Gunze Aqueous H332 Light Aircraft Grey was laid down on the wings and the undercarriage units. In order to facilitate masking a tight edge on the wing/fuselage join, I let some of the grey overspray onto the white, but this was easily restored with another coat of Tamiya X-2 once the grey was masked off. Gunze H327 FS11136 Red was used for fuselage, to my eye this has just enough of an orangey cast similar to BS381 537 Signal Red. The black anti-glare panel was Tamiya XF-1.



The gloss white finish was slowly built up spraying at low pressure.



Light Aircraft Grey areas were added using Gunze Aqueous acrylics.



With the grey masked off, the wing root would be tidied up with another light coat of white.



The wings fit well and some Mr Surfacer Black was used to check out a few joins.



Some more Mr Surfacer was used to blend the intakes into the fuselage. Overall, the fit is very good.



A can of Mr Surfacer Black primer was used to provide a solid base for the white coats.

After removing the masking there were only a few areas that needed a little cleaning up. A couple of coats of Tamiya X-22 mixed 50/50 with Mr Color Levelling thinner were sprayed at low pressure to start building up a glossy finish on the grey and red areas.

The decals looked good on the sheet and provided plenty of stencilling, but I found the varnish to be so thin that some items tore or folded up on themselves. When they worked they were great and I didn't need any setting solutions, but some damaged items were replaced with those from an Old Modeldecal sheet that also featured the Swords aircraft.

FINAL APPROACH

I needed to keep the model on the glossy side,

but tone-down the rather toy-like high-gloss appearance needed for decals. The solution was a heavily thinned mix of Gunze matt varnish about 25% paint to 75% thinner. This was just enough to knock the shine down to a more scale-like gloss appearance.

Weathering was kept very light, I picked out a few panel lines with a very thin Payne's Grey paint wash, just enough to faintly define the panels without it looking like something from a 1970s Hasegawa catalogue.

The landing gear and doors were fixed in place, the various aerals added, and the last job was to add the nose transparency – to my delight this popped into position without the need for any adhesive. ■



FINAL VERDICT

The Sword kit captures the look and sit of the JP5. Overall the fit is very good, but the inconsistent instructions make the experience more effort than it should be. The smaller parts could be replaced with those from the Airfix JP5/Strikmaster, but to be honest they're largely out of sight. Despite the frustrations with the instructions, it's a kit I'd like to return to as I do fancy making one of the RNZAF Strikmaster variants. Come to think of it, I'd like to do a nostalgia build of the old Matchbox kit for comparison...



Tamiya masking tape was used to mark out the areas needing to be painted red.



Voila! Some minor touch ups are required, but the result is a nice, clean finish ready for a gloss coat.

KIT BUILD

SKILL LEVEL: INTERMEDIATE

SCALE
1:48

SPECIFICATION:

Kittyhawk 1:48 AH-1Z Viper
Kit No: KH80125
Materials: IM/PE
Availability: Hannants

BEFORE STARTING:

- Liquid cement (MEK)
- Superglue - gap filling
- Mr Surfacer 500
- Mr Dissolved Putty
- Tamiya Basic Putty
- Tweezers
- Scalpel, Sanding sticks, Micromesh, polishing pads
- Kip masking tapes

PANTS USED:

Mr Color H308 FS36375
Mr Color H337 FS35237
Vallejo for detail work
Finisher's Auto-Gloss
Vallejo satin varnish
Windsor & Newton raw umber and black oil paints,
Humbrol enamel black and brown

ACCESSORIES USED:

- Weapons from spares
- Decals from Fireball Modelworks and Platz

BUILT AND WRITTEN BY DREWE MANTON

VIPER!

Bell's AH-1Z Viper is pretty much the ultimate expression of the Cobra family. Indeed, such has it grown from the original AH-1G of 1967, that it's really difficult to see where any further growth would be possible. We take a look at this superb machine in 1:48.



Further developed from the AH-1W Super Cobra from the mid 1980's, the AH-1Z retains the General Electric T-700 engines of its forebear, but marries it to an all new rotor and transmission system. Gone is the classic teetering twin rotor arrangement synonymous with Bell products, replaced by an all new bearingless and hingeless four blade main and tail rotor, which substantially improves the basic performance of the aircraft. An all new avionics and targeting system, along with larger stub wings capable of carrying all of the weapons of the AH-1W along with wingtip Sidewinder launchers revolutionise the aircraft's offensive capabilities. But probably the biggest benefit of the new aircraft from a logistics point of view is its commonality with the UH-1Y Venom, with

some 84% of the aircraft's parts being directly interchangeable between the two helicopters - A real boon for the kind of expeditionary warfare the USMC specialises in. In fact they are so compatible that the USMC uses both types in the same squadrons, rather than separate utility and attack squadrons. Current plans call for a total of 226 Vipers for the US Marines, a mix of new build and remanufactured W models. Thus far the only export order is for Pakistan, who require 15 aircraft.

IN MINIATURE

A few years ago Italeri upgraded their existing AH-1W and marketed it as a Z. It was, however, basically a W model with a new rotor system, lacking most of the full production upgrades applied to the Zulu model. The subject of this build, the Kittyhawk

kit, was released in mid 2015, along with its stable mate the UH-1Y Venom, to generally good reviews. Indeed, I have personally been less than impressed with much of Kittyhawk's production to date, with some poor research and overly complicated engineering leading to some tricky builds and questionable accuracy. Reviews said this model was a new standard however, and I looked forward to testing that hypothesis!

IN THE BOX

The model comes on four grey and one clear sprue, which on an initial inspection look to be very nicely done. For the most part this is borne out during construction, but it can trap the unwary, so I hope to address some of the construction issues as I go with this build. Inside the box is a well produced instructional booklet, with pretty clear directions, and decals ►

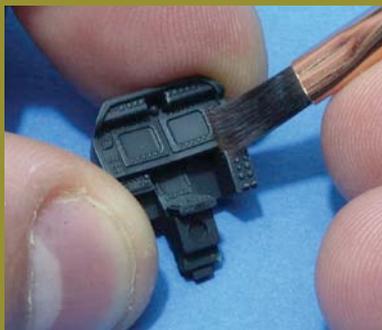


KIT BUILD

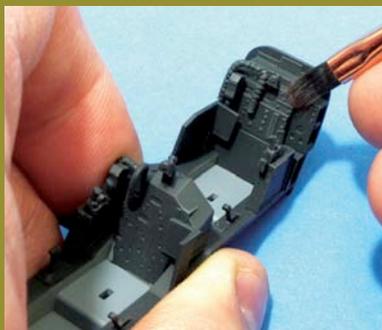
SKILL LEVEL: INTERMEDIATE



The interior is well moulded if a little simple compared to aftermarket offerings, but assembles easily and fits well.



Fairly simple paint job consisting of black and grey airbrushed and then some pale grey drybrushing followed by picking out some switches and buttons with a fine brush.



The detail really benefits from some careful drybrushing.

◀ for three aircraft, including one black and red spined aircraft. Also included is a small etched fret containing parts for all the grilles and seat belts (of which more anon!)

GETTING STARTED

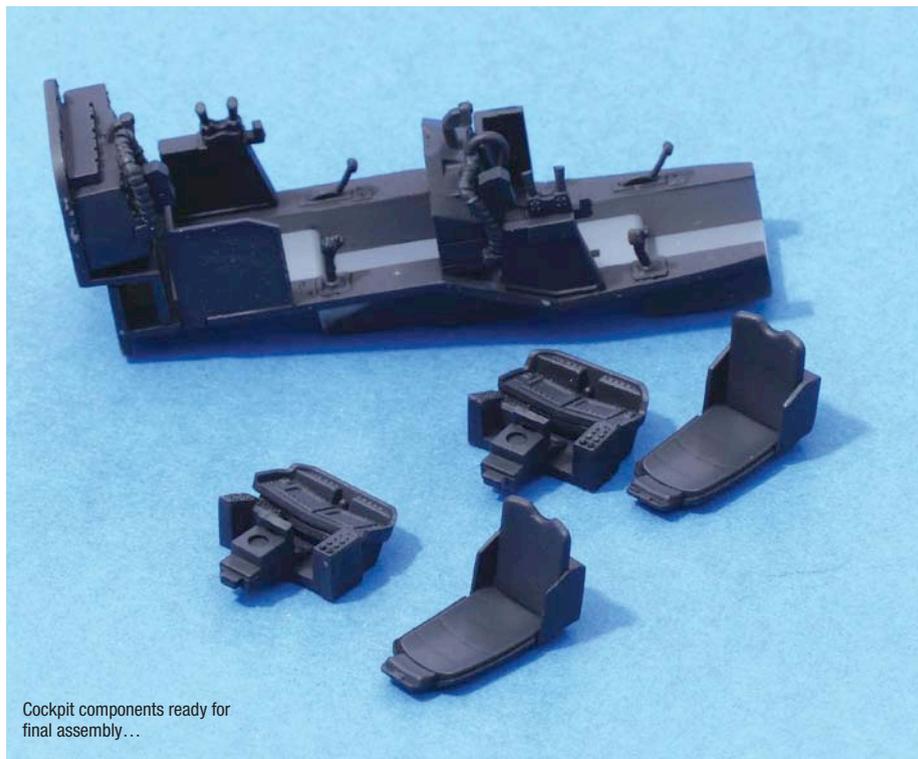
As is usual for me, I started construction by building as many subassemblies as I could to allow them time to set. So things like the stub wings, exhausts, tail boom, sensor ball, gun turret and other ancillaries were assembled with MEK and set aside to dry while other things were dealt with. Fit of all these parts was basically good, but in my first indication that this is a kit that could indeed trap the unwary, it quickly becomes apparent that there are many mould lines and very fine areas of flash over the kit's mating surfaces, along with a lot of VERY prominent ejection pin marks. None of these are problematic, as long as the modeller is aware of them and deals with them as the build proceeds. I used a variety of sanding sticks and the back of a knife blade to de-burr mating surfaces as I went, and a mixture of curved knife blades and Mission Models Micro-Chisels to deal with ejector pin marks. The micro-chisels in particular have been worth their weight in gold on builds like this over the years, and I'd highly recommend them to anyone - they make removing detail and eking out recesses and pin marks really very easy, and speed up the process markedly.

INTERIOR DECORATING

With those parts assembled and drying, only now did I start assembling the interior. I had decided early on to build the interior straight from the box. It's pretty well moulded and fairly comprehensive, although obviously missing

some of the finer details like wiring and the like a resin equivalent, may provide (I'm not aware of any resin interiors for this kit at this time and so can't advise on availability). The AH-1Z has a medium grey (FS36231) floor with all areas above that level in black. I used basic Stynylrez grey primer for the grey areas, it being a very close match for FS36231 straight from the bottle. It sprays beautifully and dries very smoothly. The floor areas of the assembled interior were then masked off and the black areas sprayed a very dark grey - again using Stynylrez black primer with some grey added.

Once dry, the interior was lightly drybrushed using a flat brush and Vallejo medium sea grey paint, thus popping the detail out very nicely and actually revealing some very fine work by Kittyhawk. Various switches and buttons were then picked out using a fine brush and more Vallejo model colour paints. The instrument panels have large glass screens and having tried almost every method of glazing these in the past, I have still to find anything that looks better than super clear five minute epoxy (Devcon is the manufacturer I use). Gently dropped into the screen with a toothpick, the epoxy flows and settles beautifully and looks very glossy when dry. If you struggle with this kind of glazing give it a try, you may be impressed! One thing I did discover, having spent many minutes looking for the seat straps that the instructions tell you are decals (not ideal, but I was at least prepared to see how they looked), is that they don't exist on the decal sheet. They do, however, exist on the etched fret. . . I can only assume this was a very late change in plans. At any rate, having discovered the very nice etched seat belts on the etch fret, they were cut out and annealed



Cockpit components ready for final assembly...



with a lighter before being painted and mounted on the seats with superglue and the interior assembled ready for incorporating into the fuselage halves.

ONTO THE AIRFRAME

Assembly of the main fuselage with the interior in place was trouble free, as long as attention is payed to the previously mentioned

mould seams and light flash, but only a light application of MEK and some tape was needed for a fine, solid join. At this stage the previously assembled intakes were added, as were the port side engine bay covers. Generally, I really dislike separate engine covers, but I have to say in this instance that mounting them in the closed position was trouble free, the fit being very precise and only

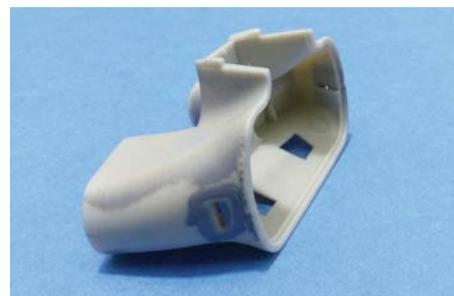
a thin bed of MEK being needed to secure them. I had assembled the engine bays and previously glued them in place, having decided to show the port engine bay closed, but the starboard bay opened and displaying the included engine. The nose was also assembled and glued in place at this time, as was the starboard avionics bay door, fit of this item again being remarkably precise - a bead



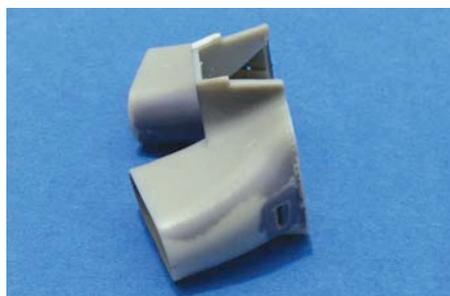
Glass displays in the cockpit were glazed with super clear 5 minute epoxy for a glossy appearance



The exhaust parts needed some internal clean up but fitted well.



Clean up was done with knife blades, wet and dry and scotchbrite to polish the treated surfaces.



The exhausts are now ready to fixed in place.



Engine and avionics bay panels fitted very well in the closed position, requiring very little clean up for a perfect appearance.

KIT BUILD

SKILL LEVEL: INTERMEDIATE

The front half of the fuselage is complete. Fit is good, needing little in the way of additional work.



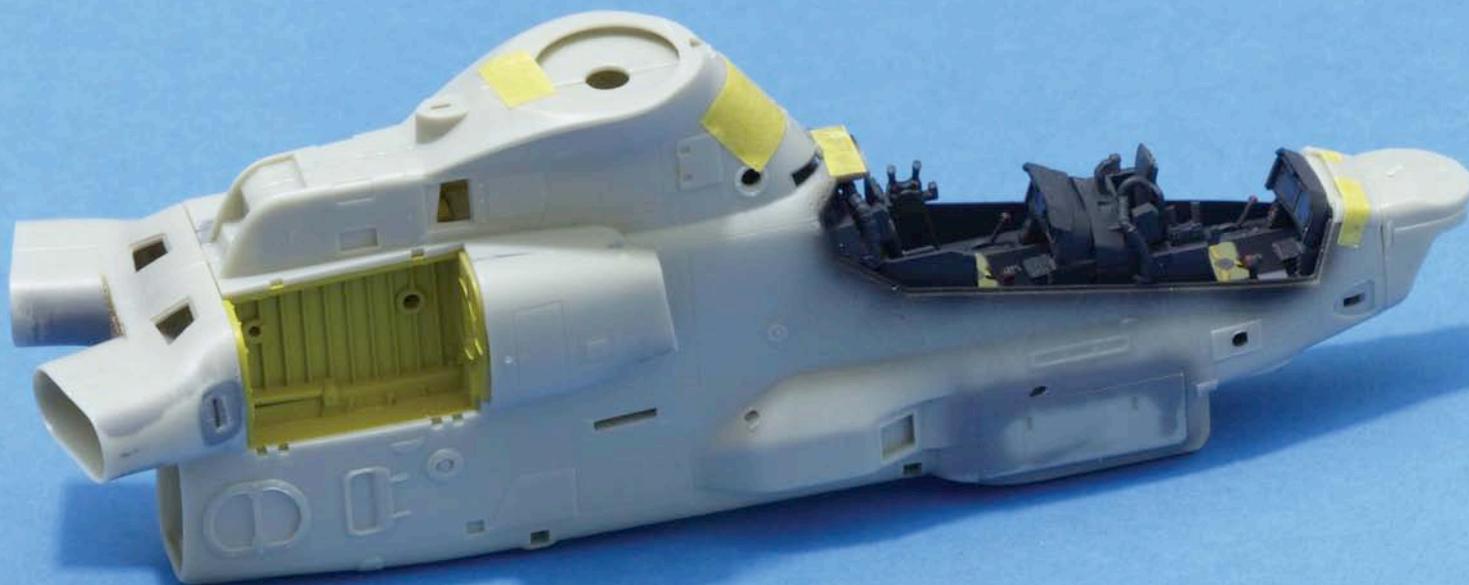
of MEK and a swipe over with scotchbrite when dry to remove any glue marks being all that was necessary to make the door look like it was moulded shut on the model. Once dry, the fuselage seams were cleaned up using nothing more involved than some wet and dry and a light polish before checking over the seams using some brushed on Stynylrez - I'm finding this stuff works well as a sort of surfacing agent with a brush, it covers well and fills small gaps and scratches just like Mr Surfacer and sands just as well. The exhaust assembly with its etched brass rear detail part, literally clicked into place on the fuselage in a very gratifying manner, being secured with a drop of MEK, before the previously assembled

and primed tail boom was added - again fit was superb with no issues at all, the assembly clicking positively into place and holding in position through friction alone prior to a drop of glue being used to secure it - superb!

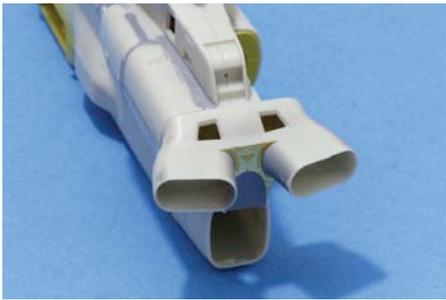
Once the main assembly was thoroughly dry and all joints had been dealt with (a couple of small spots needed a dab of Tamiya basic putty and some sanding, but otherwise fit and finish was commendable) I could move on to some of the detail work. As is the norm with modern tactical helicopters, this aircraft has many lumps, bumps and other excrescences connected to active and passive defence systems. The flare dispensers were left off until later, but things like the missile launch

sensors and other ECM were added now, fit of all parts being, as with the rest of the model, very straightforward and taking very little time indeed. This was the airframe basically complete, and the next job was to install all of the etch brass grilles and vents.

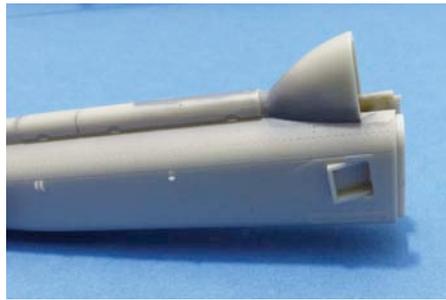
The instructions are a bit of an anomaly here - they are clear with the items they include, but sadly don't make reference to all of the vents and grilles, leaving the modeller with a bit of detective work to do to include them all - fortunately the shape of most of the items is so unique that matching them to the relevant orifices on the model is not overly difficult, but it is irritating to see so many of them simply not mentioned. All parts were cut from the fret with



Internal bays were painting in a Chromate Yellow colour.



In this view you can see the exhaust system on the fuselage - no glue has been used here, it simply clicks into position beautifully.



The tail boom locating face and tail boom with exhaust system, located and glued in place - fit of all parts was very positive indeed, requiring little work for a perfect join.



Primer was used to check the accuracy of the joints around the model.

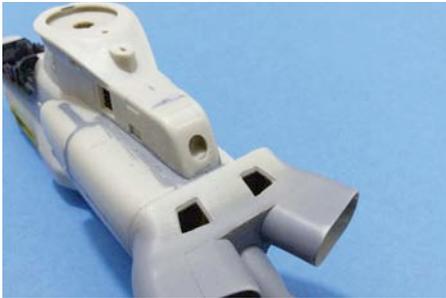


Photo-etched details are used around the model, a large plate being seen between the two exhausts.



A final clean-up and removal of dust and the model is ready to be fitted with its canopy.



All of the etched grilles and panels in place.



Fit was perfect after cleaning up both the brass and the recesses for their location.



The vents were secured with tiny drops of superglue.



There is no doubt that the etched vents add a touch of realism around the outer surfaces of the model.



The upper engine cowlings and exhausts in detail.



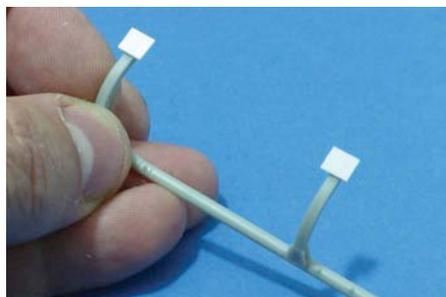
Another view of those Chromate-painted interior surfaces.



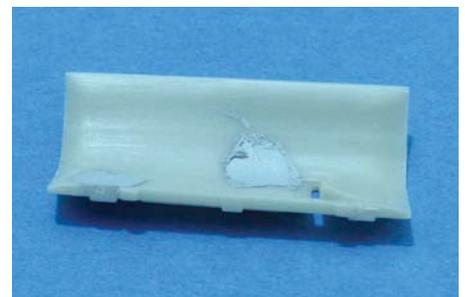
Seat straps are from the etched fret, as are those aforementioned vents.



Stynlrez grey primer was used on the majority of the airframe prior to finish painting.



The skids are a multi part assembly, but fit is sloppy, plastic sheet being used to improve fit to the fuselage. See article for more details on skid fit.



Some of the exposed bay panels had sink marks and ejector pin marks that needed some filling and sanding, here using Tamiya basic putty.

KIT BUILD

SKILL LEVEL: INTERMEDIATE



Sanding the heads of the missiles flat before drilling them out to glaze later.



Small parts mounted to cocktail sticks for painting and finishing



Airframe masked and primed ready for final painting

◀ a fresh curved blade, and then any tags were cleaned up with Tamiya's fine diamond file, a couple of swipes leaving perfectly clean edges ready for installation. Pieces that needed to be curved such as the grille on the fin leading edge or the large grille on the front of the doghouse were rolled on a cutting mat using stainless steel tube to curve them as required. Fit is generally very precise, but be careful to check all the recesses for mould lines or flash - there was some, particularly around the tail boom recesses, and without cleaning them out using a fine blade and micro chisels, you may end up with some frustrating moments. Once cleaned out however, a tiny dab of superglue was all that was needed to secure the etched pieces in place.

The canopy on this model comes in five parts, which was enough to make me pause and worry! However, in keeping with the general theme of the model, with care and careful clean up everything fitted very nicely indeed, all of the fixed portions being carefully glued in place with MEK applied with a fine brush and left to set before checking the joins. The rear of the upper portion, immediately in front of the doghouse did require a little filler, but just a smear of Tamiya basic putty and a light sanding was all that was required before all the clear areas were masked off using Tamiya tape. The opening portions were masked and sprayed separately from the model, with the cockpit opening being masked with more Tamiya tape before all the clear areas were sprayed black as an undercoat. Parts such as the stub wings, tailplanes and access doors were mounted separately for painting, and then the whole model was given

a coat of Stynylrez grey primer to check for any areas that needed further work prior to painting commencing. The primer was then polished with some fine scotchbrite and painting could commence.

PAINTING, WEATHERING AND DECALS

The Viper carries a fairly simple colour scheme, consisting of overall FS36375 Light Ghost Grey with FS35237 Blue Grey top sides. Mr Color paint was used, the 36375 being Mr Color H308, thinned with Mr Color Levelling Thinner and applied in a decent wet coat, the levelling thinner slowing drying enough to allow the paint to settle beautifully and reveal the kit's very fine engraved detail. For the 35237, Color H337 was used, this time being thinned with Mr Color Rapid Thinner to a ratio of about 30% paint to 70% thinner and airbrushed freehand. The Rapid Thinner does just what it says - flashes off very quickly. This allows the modeller to use very heavily thinned paint to achieve fine freehand lines, but also allows rapid paint build up because whilst very thin, the thinner evaporates so quickly that there's little danger of paint runs or similar issues. It really does allow super fine lines, whereas the Viper has a reasonably fine but still diffuse demarcation between the colours, meaning that I had to actually force myself to back off a bit to allow the overspray line to be bigger than I normally try to achieve. Still, one fairly quick session was all that was required to get the basic colours down, after which the stub wings had their black walkway portions masked and sprayed. Looking at pictures indicated a fairly clean finish on these aircraft, so very little in the way of airbrushed post

shading was conducted, just some faint dark lines on the tailplanes and one or two very subtle light patches here and there blended in, after which the model received a coat of gloss lacquer to prepare for weathering and decals.

Looking at pictures of the real thing, against the pale scheme, most of the panel lines are clearly visible, but not in a stark way. To try and replicate this I used a pin wash of Payne's Grey paint lightened significantly with white, enough that the panel detail is clearly visible without being over obvious. Any excess was cleaned up with kitchen towel lightly moistened with white spirit. Some of the other recessed details and grilles were picked out with a darker wash, and for this I used straight Payne's grey applied slightly thicker before wiping the excess away.

With the excess wash removed several sessions were spent applying the decals, about which there's really very little to say (in a good way!); they settled beautifully with Micro Set and Sol, with only a couple of very minor areas of silvering requiring some gentle slicing with a fresh blade and a second application of Sol to deal with. With the exception of the formation lights, everything is in two shades of grey, and whilst I think the darker shade used for the majority of marking was perhaps a little but warm and brown, once in place it looks fine, so I felt no need to look anywhere else for alternatives.

After leaving the decals to dry for 24 hours, the model was wiped down with some kitchen towel moistened with Vallejo airbrush cleaner to remove any residues and dust, and then a second coat of very heavily thinned lacquer thinner was applied - this serves to unify the

finish for the final coat, and also acts to soften any outstanding decal film that has silvered and suck it right down to the model.

With the decals in place and varnished, I now painted the engine and avionics bay. The avionics bay was painted yellow zinc chromate from Mr Color, with details in several shades of black and dark grey. I had assumed the engine bay was the same, and initially painted it this colour as well, but upon referring to pictures it actually appears to be a dull anodised metal colour, and to replicate this I mixed some Mr Color Super Metal Silver with FS36270 Neutral Grey and sprayed that, which resulted in a nicely dull metal appearance. The engine had been built and painted separately for addition at the end, and whilst the keen eyed could spend ages with wire and sprue detailing it, I simply assembled and painted what was provided, adding various washes and dry brushings later to bring out the detail. I also added other details that had been pre painted at this time, including the skids. These are in three parts each, but are a very sloppy fit into their recesses. I used some .010" plastic card to pack the mounting points for a more secure fit, but they are prone to misalignment just the same. In pictures you can where my port front skid is off the ground - this has since been corrected but I would suggest that when you do this, you glue the skids in place with a slower setting cement, and then tape them at the front and rear to a flat surface before letting them dry in place thoroughly. A small point but worthy of mentioning. Stub wings, tailplanes and outstanding aerals and the like were also glued in place and painted now.

The model was now given a heavy coat of Vallejo satin varnish overall. Although listed as satin, this varnish dries more to the matt end and gives a great looking smooth scale matt in my opinion. The secret for me is minimal thinning and ensuring a good wet coat is applied - thinning and spraying lightly can lead to uneven finishes and even white blooming of the finish, and in my experience is to be avoided at all costs! When the varnish was dry but not yet cured, I removed all the masking from the clear areas, and used a cotton bud soaked in Vallejo thinner to ensure all the clear areas were just that - clear. At this point I also slipped the engine into position and located the engine and avionics bay doors, as well as the open portions of the canopy. I had previously assembled and painted the main and tail rotors as well - and apart from needing care in the clean up these parts are trouble free once some pretty prominent ejector pin marks are removed.

WEAPONS

The Viper is a very heavily armed helicopter to say the least - the larger stub wings of this variant being needed to carry all the stores. The kit comes with several types of 70 mm rocket pod (seven and 19 round launchers), eight Hellfire missiles and a pair of AIM-9M Sidewinder missiles. The Hellfire missiles come with different noses for the laser or radar guided variants, but the Viper carries no radar ►



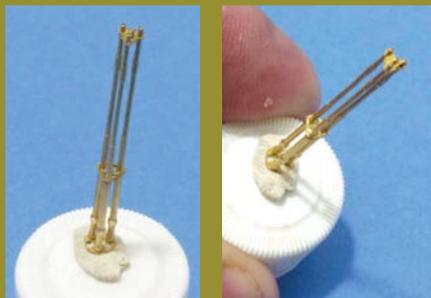
The main colours applied using Mr Color paints and Iwata airbrushes



Masking of the engine bay for painting using Tamiya flexible tape and Kip tape to fill in.



Masking tape removed to reveal painted engine bay.



The incredible Master Models gun barrel. Incredibly fiddly to build, this brass and etched kit looks amazing once complete.



Details were picked out with a fine brush and thinned acrylic paints.



Even without washes, the panel lines stand out against their pale grey surroundings.



Main painting and decal work complete, with final assembly and finishing about to commence.

KIT BUILD

SKILL LEVEL: INTERMEDIATE



◀ and so is limited to the laser version for now. I decided to use a more modern Sidewinder variant on my model, and stole a couple of AIM-9X models from a Tamiya F-16 kit. Both the Hellfires and the Sidewinders have clear seeker heads, so I drilled and reamed the heads out prior to painting for later glazing. The Hellfires were painted black, and the Sidewinders grey before gloss varnishing and applying decals. Although the kit includes stores decals, I sought better aftermarket decals for my missiles, and the Hellfire decals are from Fireball Modelworks, with the Sidewinder decals being from Platz. All of the decals settled nicely over the gloss varnish and once dry the missiles were matted down prior to glazing the tips with clear five minute epoxy before mounting them to the model. I also assembled and painted the 19 round rocket launchers, using some brass rod to mount them to the stub wings.

The cannon had its barrels replaced with the sublime Master Models turned and etch brass set. This is, to be fair, expensive and VERY fiddly to assemble, really taxing my skills and eyesight, but once together and painted dull gunmetal looks unbelievably good, and is certainly worth the money, if not the eyestrain! It was glued into the turret with epoxy to give

me time to align it before mounting the gun turret and sensor ball to the nose. The sensor ball is a real weak point of the model - the layout of the clear portions being nothing like the real thing, and in fact lacking one large window completely! However, when not in use the sensor windows are rotated out of view for protection so it's not too obvious on the finished model.

FINISHING OFF

The model was now basically complete, with just some final weathering and detail painting

being needed. The exhaust staining on the tailboom was done with heavily thinned Tamiya black and red brown lightly sprayed using photographs as a guide, and some other panel detail and areas received a very light fine spray. Other examples of dirt and wear were done with lightly drybrushed Payne's Grey and Raw Umber oils, the matt finish and a fine flat brush lending themselves very well to this procedure. The real aircraft look pretty clean for the most part so refer to references and don't overdo it! And with that weathering the model was complete. ■



FINAL VERDICT

In conclusion I think this is a generally superb model. It requires care and attention to deal with flash and mould seams, but as long as the modeller is prepared for this fit is generally very good indeed; I used very little filler on my example and assembly was easy and trouble free. The etched details fit pretty much perfectly, and are an example of genuine value-added from the media, as I often find etched brass in kits of no real value to the model, simply being a selling point rather than an enhancement, so top marks to Kittyhawk for this. My additions in the way of the replacement gun barrels, missiles and decals were more an attempt to gild the lily than strictly necessary, and straight from the box this model will look very nice indeed. With the caveat that it's for the slightly more advanced modeller, this is a great model that will reward patience.



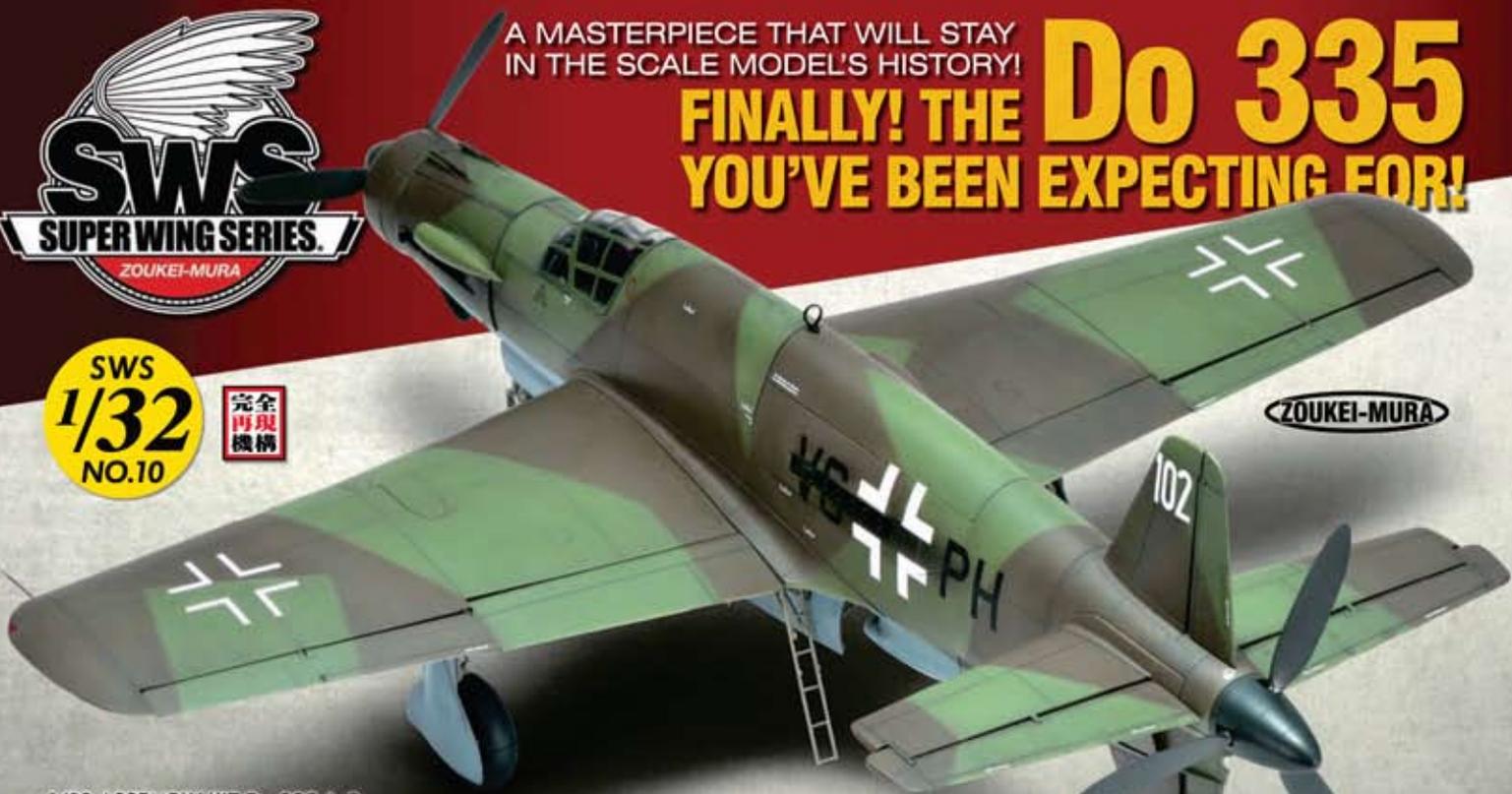
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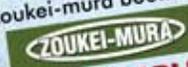
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TAMIYA 1:48 F-14A TOMCAT

Perhaps the biggest news to come of this year's Hobby Fair, was that Tamiya would be adding to its range of 1:48 kits, with the addition of an F-14 Tomcat. This exciting news was greeted with a mixture of pleasure and angst, those that were excited noted that it would be a wonderful new kit that would be easy to build

and look great complete, those that were not quite so thrilled, noted the lack of weapons, slats and flaps. We fall into the former camp, as you might expect...

As we have discussed this kit in more detail at the end of this issue, the next few pages will be taken up with images of the model as seen in Japan. We'll let the pictures speak for themselves,

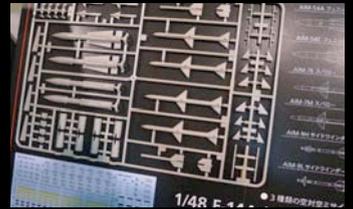
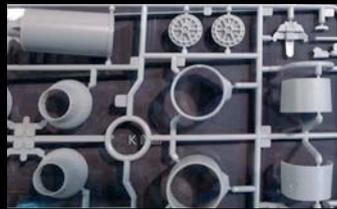
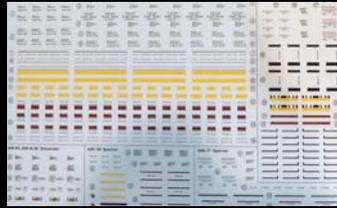
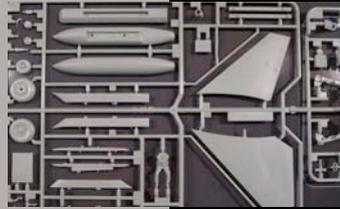
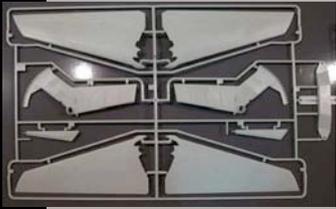
noting only that this looks to be another fine kit that replicates the Alpha variant of this famous fighter extremely well and as can be seen in the shots seen here, that also means lots of lovely, bright, colour schemes!

This then is Tamiya's new F-14A Tomcat - we hope that you enjoy seeing these pictures and we would like to Thank Brett Green for their use.

KIT PREVIEW



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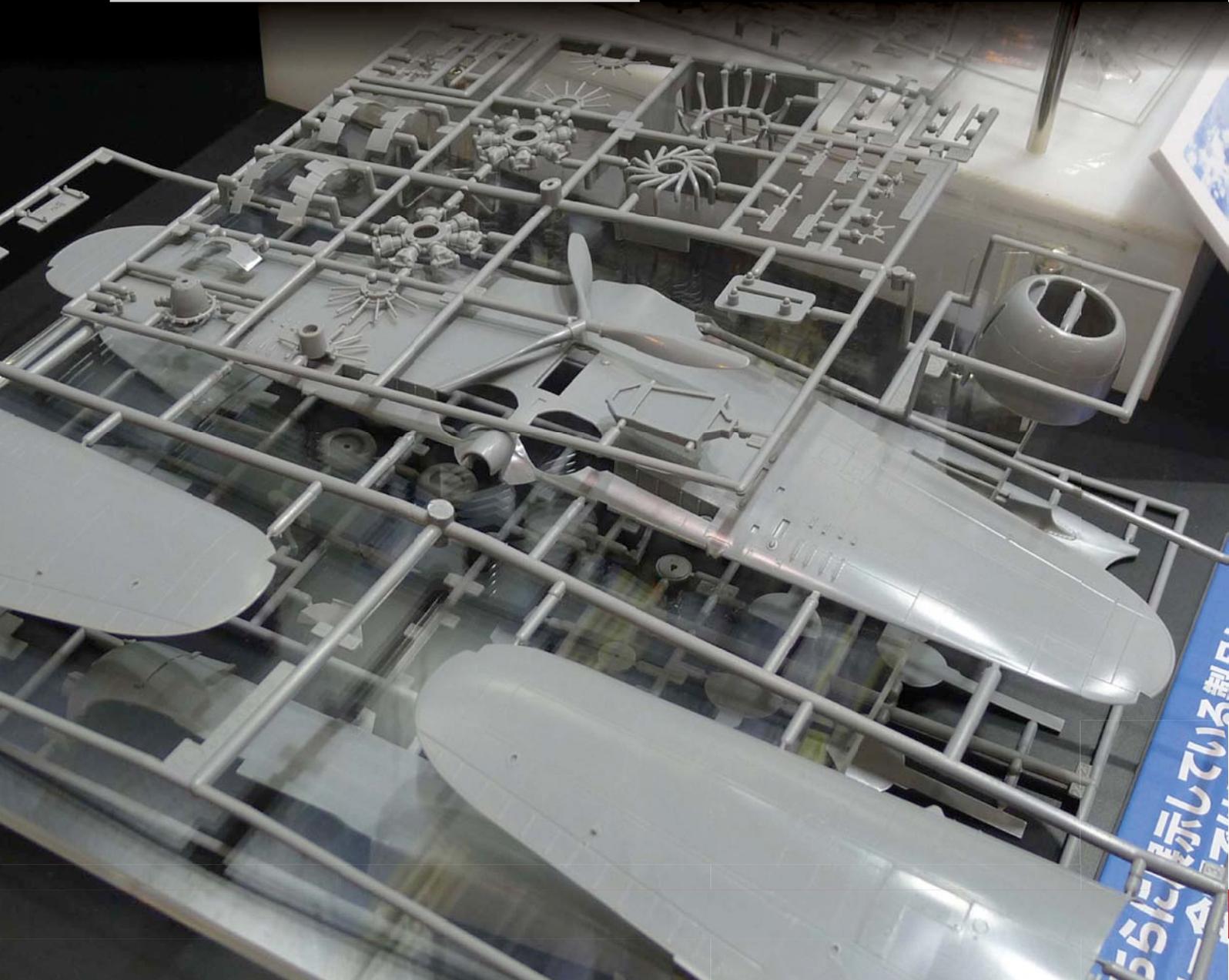
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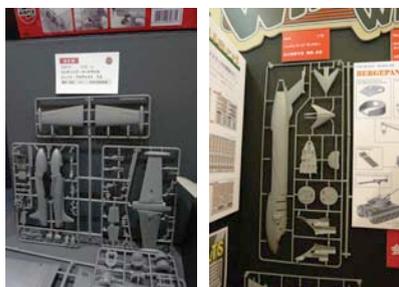


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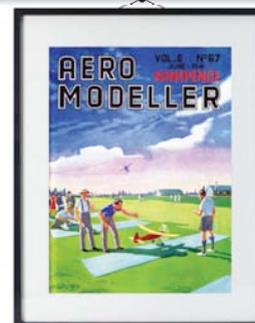
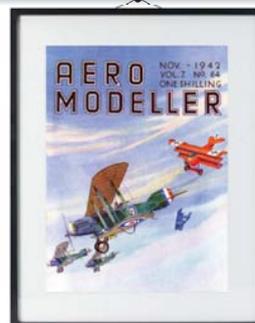
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CHINESE J-10B

Scale: 1:72/Trumpeter/Materials: IM/Kit No: TU01651/All Good Model Shops/Price Guide: £21.99

SCALE 1:72

The J-10B is an upgraded variant of the existing J-10A. Already in service with the Chinese air force (PLAAF). The new aircraft has an electronically scanned radar, resulting in a new, angled radome, an all new, more efficient diverterless intake, aerodynamic refinements and upgraded avionics including an infra-red search scanner in front of the canopy. The original J-10a was kitted by Trumpeter in 2004, but suffers from numerous inaccuracies. This kit, however, is all new and a comparison with the earlier kit shows it to be superior in every respect.

Moulded on seven grey and one clear sprue, the toolings are to Trumpeter's usual high standards, with sharp moulding and very nicely engraved detail, and the plastic is also very nice, being pale grey and not too soft. A small etched brass fret includes seatbelts and some antenna, while a small but complete decal sheet covers one basic scheme but with numerals to allow the modeller their choice of individual aircraft. The stores include a complete set of drop tanks, and a wide variety of missiles, PL-8, PL-9, PL-10, PL-12 and PL-13, and also a couple of small iron bombs - the modeller can really load their model up if so desired!



VERDICT

In all this is a very impressive package from Trumpeter, I haven't closely looked at accuracy, and am merely referring to the quality of the mouldings and details. This is one I would hope to build very soon, maybe for an article if my erstwhile editor agrees? (Drewe Manton)

PLA J-11B

Scale: 1:48/ Hobby Boss/Materials: IM/Kit No: HB81755/All Good Model Shops/Price Guide: £44.99

SCALE 1:48



Trumpeter have extensively kitted (and are still kitting!) the Flanker in it's many guises in both 1/32nd and 1/32nd scales. This model, in spite of being released under sister company HobbyBoss's label, is clearly of the same lineage in terms of design and execution. That means both good and bad things - but at the outset I should say I think the good is really good, and the bad is really minor!

In 1/48th scale the Flanker is a very large model indeed, and this model comes on 17 grey and two clear sprues, totalling 228 parts, with additional photo etch and vinyl tyres. Overall tooling is to a consistently high standard, and the two fuselage halves are very impressive mouldings, being in one piece each, and secured firmly to a box insert with soft wire and packing foam to prevent damage. Indeed, the packaging is one of the highlights of this model in the box, sprues being individually bagged, with foam taped over delicate parts and over the canopy entirely to protect them in transit, and

the model comes in a very sturdy box.

The kit does inherit one or two accuracy issues from its predecessors; the main wheel bays are still angled incorrectly, but I'm sure this won't be noticed once assembled with the doors in place - certainly I don't intend to do anything with it. On the other hand some things have been improved - such as the curious LERX/wing junction on the 1:72 kit. As a J-11B the kit includes all of the necessary mods to the standard J-11A (which was just a straight Flanker-B in reality) - the new nosecone with lightning protection strips, new wingtip launchers to allow carriage of the bigger finned PL-8 missiles, WS-10A engine exhausts and other minor mods are all catered for and all are beautifully moulded in a pale grey plastic with superb recessed detail.

A wide variety of modern Chinese air-to-air stores are included, and decals for two specific aircraft, but with enough numbers to allow the modeller to model his or her own subject, are well produced and printed on the very full decal sheet.

VERDICT

Overall this is a very impressive package from HobbyBoss, and one that looks like it will be a very rewarding project - something I will be putting to the test shortly, as a full article for the magazine - stay tuned! (Drewe Manton)

SCALE **1:72**

FW/190A-8 STANDARD WINGS

Scale: 1:72/Materials: IM/Kit No: 7435/All good model shops/
Price Guide: £9.60

- Reworked tool
- Delicate detail
- Full cockpit
- Incised panel lines
- Two decal options: 2.JG 54, Lt. Hans Dortenmann, Villacoublay, France, June 1944; W. Nr. 350189, 12./JG 5, Hertha Airfield, Norway, 1945.

VERDICT

Eduard add to their list of '90s with this revised A-8 featuring the type's stock wings without the cannon bulges seen on the aircraft that we have modelled, for this month's full feature. Other than that modification, the kit appears the same, so the modeller is simply faced with one of the tidiest, most detailed 1:72 aircraft kits on the market today! And that's all we have to say on the matter...



SCALE **1:48**

FOKKER D.VII OAW

Scale: 1:48/Materials: IM/Kit No: 84155/All good model shops/
Price Guide: £16.99

- Reissued Tool
- Neat detail
- Complete Cockpit
- No need for rigging
- Full lozenge decals
- Two decal options: flown by Wilhelm Leusch, Jasta 19, October 1918; flown by Franz Mayer, MFJ III, 1918.

VERDICT

This is a 'Weekend Edition' of Eduard's well-known Fokker D.VII, stripped back to allow a simple project to be completed without any additional whistles and bells. Detail is superb as you would expect and thanks to an almost complete lack of rigging, a project that a beginner to biplanes might be able to tackle comfortably. I say might, because there is still the thorny issue of those lozenge decals and wing tapes, but then, you can't have everything, can you?!



SCALE **1:72**

A-10A/C THUNDERBOLT II

Scale: 1:72/Materials: IM/Kit No: IT1376/All good model shops/
Price Guide: £15.99

- Incised panel lines
- Fine detail
- Full weapons load
- Good overall shape
- Superb decals
- Four decal options: 23rd TFW (Provisional), 74th TFS, King Fahd Air Base, Saudi Arabia 1991; 23rd TFW, 706th TFS, cant. Robert Swain, February 1991; A-10C 163rd FS "Blacksnakes", Indiana ANG, Fort Wayne AB, Indiana, 2012; A-10C, 107th FS "Red Devils", Michigan ANG, Sulfridge AB, Michigan, 2012.

VERDICT

A neat kit of this aircraft at a low price. There's plenty of nice detail here, with some finely scribed airframe parts, neat undercarriage and engine features and plenty of weapons to hang under the wings. Open avionics bay and separate steps add to the party, but the decal sheet is the real highlight, superb choices and excellent designs, helping to produce an aftermarket sheet in all but name. This is a very nice kit and one that is most definitely heading for the 'to-do' pile...



SCALE **1:72**

MIKOYAN MIG-29 (9-13)

Scale: 1:72/Materials: IM/Kit No: 7278/All good model shops/
Price Guide: £18.99

- New tool
- Superb levels of detail
- Full cockpit
- Extensive selection of underwing stores
- Five decal options: Training Centre, Borisoglebsk, Summer 2001; Russian Air Force, 426th Air Group, Armenia, 2015; Russian Air Force, 31st GIAP.

VERDICT

A highly detailed new kit of this famous Russian fighter. As with everything from this stable, this is a complete package with a whole raft of fine features to enjoy, from the delicate mouldings through the comprehensive features and high levels of accuracy, it's all there. We are blessed with a number of high quality kits of this aircraft, in 1:72, this may well be the best...



NEW RELEASES - ACCESSORIES

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www.scaleaircraftconversions.com

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SCALE 1:48



AMX, AMX-T Landing Gear (Kin) 48305

Designed For: Kinetic
Material: WM
Price Guide: £14.20

SCALE 1:48



SAAB J-32 Lansen Landing Gear 48306

Designed For: Hobby Boss
Material: WM
Price Guide: £12.70

SCALE 1:72



Su-24 Fencer Landing Gear 72125

Designed For: Trumpeter
Material: WM
Price Guide: £11.99

SCALE 1:72



BAe Hawk T.1 Landing Gear 672 102

Designed For: Airfix
Material: WM
Price Guide: £8.99

SCALE 1:72



Avro Shackleton Landing Gear 72127

Designed For: Airfix
Material: WM
Price Guide: £12.70

SCALE 1:32



Salmson 2-A2 Landing Gear 32106

Designed For: Wingnut Wings
Material: WM
Price Guide: £12.70

SCALE 1:32



Hawker Hurricane Landing Gear 32107

Designed For: Fly
Material: WM
Price Guide: £12.70

SCALE 1:48



Super Etendard Landing Gear 48307

Designed For: Kinetic
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SCALE 1:72



Tu-22 Blinder Landing Gear 72128

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Material: WM
Price Guide: £14.99

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Companies in the European Union should also add our VAT number,
which is GB 789 7020 84



NORTH AMERICAN X-15 1954-1968 (X-15, X-15B & DELTA WING MODELS) OWNER'S WORKSHOP MANUAL

- By David Baker
- Published by Haynes Publishing
- Guide Price £25.00
- ISBN: 978-0-85733-767-2
- 188pp hardback, 280 x 215mm

Those interested in high speed flight and space flight will find lots to keep you occupied between the covers of this latest in Haynes' excellent and varied Workshop Manual series. It is amazing to see that in such a short time from the breaking of the sound barrier, an aircraft would be flying at Mach 3+ by 1960. Before looking at the text properly, I was drawn to a log of the X-15's 199 flights at the back of the book. It lists the date, the name of the pilot, flight duration, the maximum speed and maximum altitude. Only a handful of the 199 flights lasted slightly longer than ten minutes. The fastest achieved Mach 6.70 and the highest reached 354,200ft. but not on the same mission. All of the figures I find amazing and are faster and higher than anything today, almost 50 years after the final X-15 flight in October 1968. The first section of the book describes the progress made in the development of rocket-propelled aircraft, rather than pure, unmanned missiles. The Americans were given a 'leg-up' in their quest for speed from captured German research from WWII and some of the German personnel involved in the development of rocketry and

rocket propelled aircraft. A full-size mock up of a hypersonic vehicle very similar to the X-15 was in existence by the end of 1956 and the first X-15 glide flight took place in June 1959. The author, who is an expert in space flight takes more than half of the book to arrive at the X-15's flying career. The interesting text, supported by charts and diagrams, describes all of the factors that have to be taken into consideration when designing a hypersonic vehicle. Towards the end of this phase, we see how the 'mother-ship' selection took place. The B-52 arrived on a parallel track in the nick of time with the third B-52 off the production line being diverted from its development programme to become the X-15's first carrier. The X-15 was carried to height on a special pylon under the B-52's wing before being released for its flight. Following flights remaining attached to the B-52 and glide test flights, the first powered flight took place on the 17th September 1959. The remaining pages of the book follows the progress of the X-15 programme to its completion and then assesses the legacy of the research into further space programmes. As we see today's reusable space vehicles such as the Virgin Galactica using X-15 launch methods, we can't help but think that sending humans into space on the top of a rocket may have been a step in the wrong direction. I wonder where we would have been now if the X-15 concept had been developed to its full potential and beyond. X-15 pilots used to joke that they could always give a Saturn V a run for its money. This is a fascinating and in some ways a surprising read when we fully appreciate what was happening in high-speed flight technology all of those years ago.

Thanks to Haynes for supplying their new Workshop Manual for review.

LIBYAN AIR WARS - PART 2: 1985-1986

- By Tom Cooper, Albert Grandolini and Amaud Delelende
- Published by Hilion and Company Ltd
- Guide Price £16.95
- ISBN: 978-1-910294-53-6
- 72pp softback, 297 x 219mm

We reviewed the first volume about a year ago, covering 1973 to 1985. The first couple of pages of this volume includes some corrections to Volume 1 where, following its publication, new information has come to light. The first volume covered a decade when Libya was constantly in confrontation with its neighbours, France and the USA. This following volume covers a span of only around six months when those confrontations came to a dramatic climax.

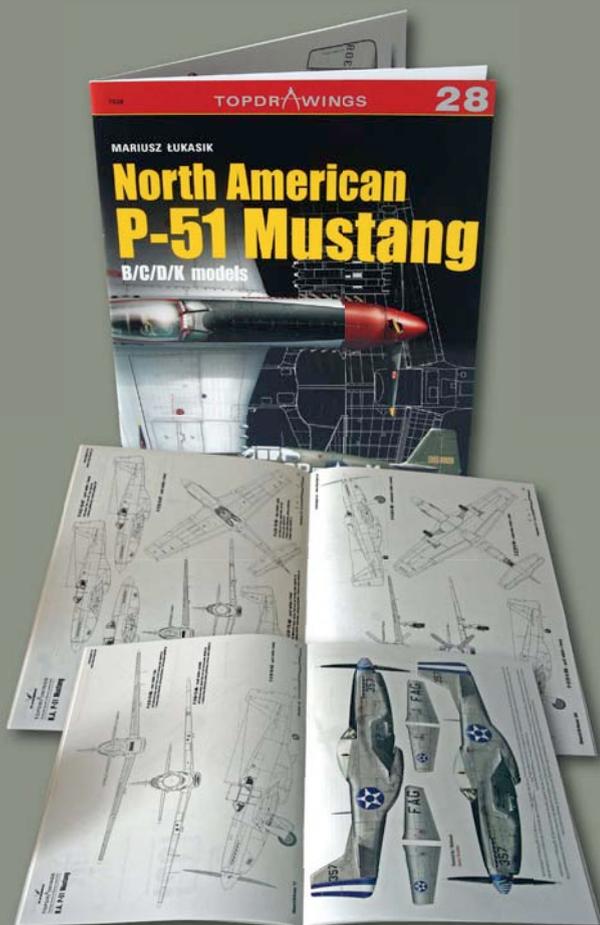
The early chapters bring us up to date with the types of aircraft that the Libyan Air Force were operating, most of it from Russian via nations that were prepared to supply Gaddafi. Against Libya was an alliance of the French, USA and Italy who were all operating state-of-the-art modern aircraft such as Jaguars, Mirages, Tomcats, Prowlers, Hornets

and Starfighters. All with well trained crews and within striking distance of Libya that was becoming increasingly troublesome. Libya had been interfering in Chad with its French connections to the south, forcing France to move aircraft to Chad. Major engagements took place between French and Libyan forces over southern Libya and northern Chad. The US Navy had three carriers in the area as tensions began to rise. In March 1986 Libyan aircraft began to increasingly taunt the US Navy by flying armed aircraft towards the carriers. This move that was guaranteed to make the US Navy react to the threat. The most famous engagement took place over the Gulf of Sidra, when on the 19th August 1981, two Su-22 Fitters and two F-14A Tomcats met. The Tomcats were approaching the Fitters to carry out a visual identification when one of the Fitters launched an Atoll air-to-air missile at one of the Tomcats. The Tomcat avoided the missile and missiles were fired back at the Su-22s, shooting them down. The above incident and many others that received little coverage at the time, are described in detail in this book, there was even tensions between some of the allied forces. This all makes for interesting reading. The text is supported by many photos, a few colour profiles and maps. Whether looking for modelling references or you are interested in recent aviation history, this book is highly recommended.

Thanks to Casemate for supplying Volume 2 for review.



This month we have four new titles from Kagero's Top Drawings series for review. All follow the same format, providing sets of excellent plans for WWII aircraft. Plans are printed in the books and are also supplied printed on separate sheets of around A2 size. These will make excellent companions to builds of the aircraft concerned. Also, in each case, there is a small sheet of self-adhesive masks. Kagero's wide range of books is available from Avid Reader/Bookworld Wholesale Ltd in Stourport on Severn. Phone: 01229 823330 and web address at www.bookworldws.co.uk. If a book you are looking for is not on their website, ask and if the title is still in print, it can be ordered.



NORTH AMERICAN P-51 MUSTANG B/C/D/K MODELS

- By Mariusz Łukasik
- Published by Kagero
- Guide Price £14.50
- ISBN: 978-83-64596-84-1
- 24pp softback, 297 x 210mm

What little text there is in these books is in English and Polish. The text consists of short historical notes and captions to the plans. There is four pages of colour profiles in the centre of the book and a profile of a P-51 Mustang III on the outside back cover. Then we have 1:72 and 1:48 plans of each of the versions mentioned in the book's title. In the margins are diagrams of fuel tanks, rocket tubes and bombs, etc. Diagrams showing the angles of wings, undercarriage and undercarriage door are especially useful. With the 1:48 plans there are drawings of an instrument panel and cockpit sidewalls.

Rather than a set of cockpit canopy masks, this book contains a set of painting masks for 1:32 scale stars and bars. The A2 folded sheet in the front of the book has a set of plans for a P-51D on one side and a P-51B on the reverse.



SUPERMARINE SPITFIRE MK.IX/XVI AND OTHERS

- By Stanisław Krzysztof Mokwa
- Published by Kagero
- Guide Price £15.99
- ISBN: 978-83-64596-87-2
- 20pp softback, 297 x 210mm

All of the plans printed on the text pages are in 1:72 scale and cover several versions of Mk.IX and XVI Spitfire including clipped and extended wing variants. Again, we have a four page centre section showing colour profiles and two more profiles on the back cover.

The tucked-in self-adhesive sheet is a canopy mask for a 1:32 scale kit. We have three sheets of A2 plans tucked inside the front cover of this book. The first has plans in 1:72 and 1:48 Mk.VIII with extended wing tips and a head-on plan in 1:32. On the reverse is 1:32 drawing of a Spitfire LF Mk.IXc and IXe. The next sheet of drawings is all 1:32 with a Mk.VIII on one side and a PR.XI on the reverse. The final sheet has 1:48 scale plans with Mk.IXc/Mk.IXe on one side and Mk.IXc/Mk.IXe/PR.XI on the reverse.



DORNIER DO 17Z/DO 215

- By Mariusz Łukasik
- Published by Kagero
- Guide Price £17.99
- ISBN: 978-83-64596-94-0
- 20pp softback, 297 x 210mm

Most of the plans inside the book are in 1:72 scale with two pages of smaller ones at the back of the book to illustrate some of the subtype variations of Dornier 17. Again, there's a four page section of colour profiles with the main one showing an attractive desert scheme. The small self-adhesive sheet provides masking for the canopy, nose glazing and gondola of a Do17Z. A major aid if you are building a 1:72 Dornier. We also have three two-sided sheets of A2 plans: one in 1:72, one in 1:48 and one in 1:32.



FOCKE-WULF TA 152 C-1/H-0/H-1 MODELS AND PROTOTYPES

- By Stefan Draminski
- Published by Kagero
- Guide Price £16.99
- ISBN: 978-83-64596-98-8
- 32pp softback, 297 x 210mm

Most of the first half of this book of plans shows all of the variants in 1:72 and then just before the centre four pages of colour profiles we move up to 1:48 for the rest of the book's 32pp. In this volume, we have four sets of A2 two-sided plan sheets, all showing plans in 1:32. There are some interesting variants of Ta 152 illustrated such as one with shorter wings and exhaust pipes running along the lower fuselage to just aft of the cockpit. The self-adhesive sheet in this book provides painting stencils for the fuselage and wing crosses on a 1:32 scale model.

Any one of these books used with a build project will provide very useful information. Thanks to Bookworld for providing these new Kagero plans books for review this month. Their contact details are above. (Alan Firbank)

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XTRADECAL

www.hannants.co.uk

Three new sheets from Hannants' Xtradecal this month, unusually, all for fans of 1:32 kits. One sheet for those with a build of the big Trumpeter Typhoon in mind and two for the new 1:32 Hurricane series recently released by Fly.

Eurofighter Typhoon FGR.4 – Special Schemes Pt.2 (Sheet No. X32060)

Kits for this decal sheet are thin on the ground. The Trumpeter single seater has been on a sale for a while but is still on a few shop shelves. If you have one in your stash, this lovely sheet may spur you on to lift the lid and get cracking.

- Typhoon FGR.4 ZK353/BQ with No. 29(F) Squadron at RAF Coningsby 2015. A great 100th anniversary scheme on the air show circuit in 2015 was this Typhoon with a Ruby Red tail fin. The unit's XXX insignia and bird of prey's head appears on the fin with lettering and white profiles of some of the types flown by the squadron since it was established in 1915. Special markings also appeared on the nose winglets.

The 1:32 markings for ZK353 are large and the decals are spread over one sheet and a third and includes low-viz roundels.

- Typhoon FGR.4 ZK349 GN-A. The special scheme represents a Battle of Britain period Hurricane as flown by Eric James Brindley Nicholson, VC. The Typhoon's upper surfaces are finished in a pattern of Dark Earth and Dark Green with Hurricane style codes and roundels on the fuselage sides. A normal Typhoon coat of Camouflage Grey is retained on the under sides with large red, white and blue roundels. WWII red and blue roundels are carried on the upper wings. Some stencilling items are included on the sheet.



Hawker Hurricane Mk.IIc Pt.1 (Sheet No. X32062)

On this sheet we have three interesting Hurricane schemes with enough RAF markings to finish one of the aircraft.

- Hurricane Mk.IIc BD929, ZY-S with No. 247 (China-British) Squadron at RAF Exeter in 1942. The finish is overall NIVO, for night fighter operations.
- Hurricane Mk.IIc Z3574 (possibly), OK-2. This was the personal Hurricane of Air Vice Marshal Keith R. Park when AOC at RAF Luqa in Malta in October/November 1942.
- Hurricane Mk.IIc BE643, AK-U with No. 213 Squadron RAF at Edku, Egypt in April 1942. This Hurricane carries the larger tropical filter under the nose and the finish is the Mediterranean scheme with a pattern of Mid-Stone and Dark Earth on the top surfaces and Azure Blue undersides.

Hawker Hurricane Mk.IIc Pt.2 (Sheet No. X32063)

Three more interesting schemes for the Sky 1:32 Hurricane kits.

- Hurricane Mk.IIc serial unknown, FM-E with No. 257 (Burma) Squadron at RAF Honiley in March 1942. This is another night fighter finished in overall Night Black.
- Hurricane Mk.IIc BP588, RS-X in Benina, Libya in November 1942. This Hurricane also carries the larger tropical filter under the nose and the finish is the Mediterranean scheme with a pattern of Mid-Stone and Dark Earth on the top surfaces and Azure Blue undersides.
- Hurricane Mk.IIc LD726, 'Y' with No. 113 Squadron RAF when operating in Burma in October 1944. This Hurricane had the words 'Daisy Bell' in yellow on the nose and carried the large tropical filter. The scheme was a pattern of Dark Earth and Dark Green on the upper surfaces with Medium Sea Grey undersides and Far East Command two-colour roundels and fin flashes. Codes and serials are provided and a set of RAF markings to finish one of the three schemes.





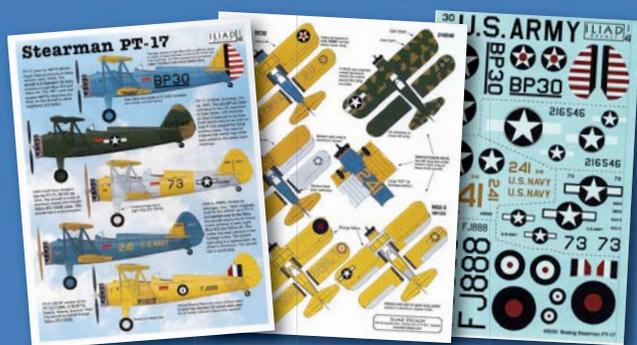
ILLIAD DECALS

www.iliad-design.com

We have two new sheets from Illiad this month for subjects that are bound to be popular. We have waited for a modern 1:48 Stearman kit for a long time and Revell's new kit is just appearing in UK shops as I prepare this review. The second sheet is for the evergreen C-47 Dakota.

Stearman PT-17 (Sheet No. 48030)

- Stearman PT-17 BP30 used by the British Flight Training School at Mesa, Arizona in the early 1940s. The scheme was the standard USAAF training aircraft colours of that time; Light Blue fuselage and Yellow wings and tail surfaces and a red and white striped rudder. Even though this aircraft was operated by an RAF unit, the USAAF paintwork and national markings were retained.
 - Stearman PT-17 216546 at Kunming in China in 1943. This Stearman was painted overall Dark Green with what is thought to be Dark Earth blotches on the wings and rudder.
 - Stearman N2S-3 (the US Navy's designation for the PT-17) 39123 in California in 1944. The aircraft carried large areas of Yellow on a Silver-doped airframe.
 - Stearman NS-4 based in Michigan in 1943. It is believed that this PT-17 was used by the USAAF before being passed on to the Navy and retained much of the standard USAAF colour scheme mentioned in No.1 above.
 - Stearman PT-27 (the Canadian equivalent of the PT-17) FJ888 with 36 EFTS at Pearce, Alberta in 1942. Many RAF pilots were sent to Canada to carry out their initial flying training in Stearman. It was said that if you could put up with the noise, learning to fly was easy. This example is in the typical overall Orange/Yellow.
- National markings are supplied to go with each of the five aircraft.



Berlin Airlift C-47s (Sheet No.72016)

- Four sets of interesting markings for C-47s. There are a handful of good 1:72 kits to choose from to carry these markings.
- C-47 USAF "Fassberg Flyer". This Dakota had seen plenty of wartime services and is shown in a challenging scheme. The basic scheme is Olive Drab over Neutral Grey but the Olive Drab was very faded. This fact is emphasised by the areas of fresh paint that covers some old markings. All of the flying surfaces had been replaced and still carried aluminium dope surfaces and the engine cowlings were left unpainted natural metal.
- C-47 USAF 315672 in a similar scheme to the above but the faded Olive Drab has fewer freshly painted areas. The rudder and engine cowlings are in the original faded Olive Drab.
- C-47 293708 operated by European Air Transport Services but carrying stars and bars. The finish is overall dull natural metal with aluminium-doped flying surfaces and red engine cowlings
- C-47 G-AGIZ operated by BOAC as part of the Berlin Airlift making 21 flights to Berlin in October/November 1948. Again, the finish is overall dull natural metal with aluminium-doped flying surfaces.
- The sheet carries all you will need to finish all four C-47 should you wish to do so.



Thanks to Hannants and Illiad Decals for supplying their new sheets for review this month. (Alan Firbank)

EVENTS DIARY

Model shows for 2016



June 26th 2016

IPMS Coventry & Warwickshire Model Show to be held at Rowley Road, Coventry, CV3 4FR (www.midlandairmuseum.co.uk). IPMS Coventry & Warwickshire annual model show held at Midland Air Museum. Many trade stands, displaying clubs, tombola & raffle. Refreshments available all day. Open 10am to 4pm. Admission price: Normal museum admission applies and free parking. Organiser: Paul Crocker, email: IPMS.covandwarks@hotmail.co.uk website: www.coventryandwarwickipms.co.uk

July 3rd 2016

North Somerset Modellers Society Model Show at The Helicopter Museum, Weston Heliport, Locking Moor Road, Weston-Super-Mare, BS24 8PP (www.helicoptermuseum.co.uk). This will be our 21st annual show and the second time in The Helicopter Museum. Free parking, Restaurant, Helicopter Flights Raffle for a Helicopter Flight. Open from 10am to 5.30pm. Admission price: See Museum website for admission charges. Contact: IPMS North Somerset,

John Annegarn,
email: john.annegarn@sky.com,
website: www.finetooth-systems.com/IPMSNorthSomerset,
phone: 01934417742

July 3rd 2016

SMMC Moorlands Model Show 2016 at the TA Centre, Martin Leake House, Stonor Street- off Wellington Road, Cobridge, Stoke on Trent , ST6 3HJ. Traders, Club displays, open modelling competition, free parking. This is now our 7th show and we continue to do it to raise funds for Help for Heroes. Admission price: £3 adults, £2 concessions. Contact: IPMS Staffordshire Moorland, John Lingwood, email: lingwoods244@btinternet.com, website: www.smmc.moonfruit.com

July 3rd 2016

'Smallspace 5' to be held at Hanslope Village Hall, Newport Road, Hanslope, Bucks, MK19 7NZ. The model show for all things space, science fiction and fantasy. This year we are particularly celebrating one of the most significant SF spacecraft designs ever - the Eagle from Space: 1999. So we are very pleased to announce that our special guest at

'Smallspace 5' will be the designer of the Eagle, special effects guru Brian Johnson . Admission price: Adult £3, accompanied child under 16 free. Organiser: Hamex, email: info@hamex.co.uk website: <http://www.hamex.co.uk/>

July 9th 2016

Hailsham Model Show to be held at Hailsham Leisure Centre, Vicarage Lane, Hailsham, BN27 2AX from 10:00 to 16:00 Club displays, trade stands, light refreshments available. Admission price: Adults £3, Concessions £2, Children (6-16) 50p. Organiser: IPMS East Sussex, email: info@hailsham-district-scale-model-club.org, website: www.hailsham-district-scale-model-club.org/

July 16th 2016

Romsey Modellers (IPMS Romsey) Scale Model Show to be held at Ampfield Village Hall, Morleys Lane, Romsey, Hants, SO51 9BJ from 10am-5pm. Trade & Club Displays, Demonstrations, Refreshments. Admission price: £2.00 adult, children and concessions under 16 free . Organiser: IPMS Romsey, Tony Adams, email: tony@romseymodellers.co.uk,

website: www.romseymodellers.co.uk/the-romsey-scale-model-show-2016,
phone: 07736555664

July 24th 2016

Essex Modellers' Show to be held at Hannakins Farm Community Centre, Rosebay Avenue, Billericay, Essex, CM12 0SY (<http://www.hannakins.co.uk>). The show is being jointly sponsored the IPMS-South East Essex, Hornchurch and Chelmsford branches and MAFVA, Essex Branch. Open between 10.00 am and 16.00 pm, setting up from 08.00 am. Admission price: Adults-£3-00, Child/Concession-£1-50 (Provisional) Organiser: IPMS South East Essex, Clubs - Jim Smith , phone: 07787 381976, email: wifflesnoop@yahoo.co.uk, Traders- John Drummond , email: drummond9@talktalk.net, phone: 01702 205494.

July 31st 2016

Midland Expo to be held at Leasowes Sports Centre, Leasowes High School, Kent Road, Halesowen, B62 8PJ. The annual show of IPMS Birmingham, see the website for the latest details. Admission price: See Website for details. Organiser: IPMS Birmingham, website: <http://midlandexpo.blogspot.co.uk>

September 18th

IPMS Fenland & Spalding Wings & Things 2016 at Spalding High School, Stonegate, Spalding, Lincs, PE11 2PJ. IPMS Fenland & Spalding Present Wings & Things 2016. Exhibitions: Club Displays, SIG's, Traders, Open Competition. Refreshments available. Open 10:00am to 4:00pm Sponsored by Models for Sale. Admission price: Adults £2.00 Over 65's £1.00 Under 16's £1.00. Organiser: Bill Pickering, email: ipms.fenlandandspalding@gmail.com, website: www.wingsandthings.moonfruit.co.uk, phone: 01775 710465.



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Contact details for companies featured in MAI this month...

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Tel: +44 (0)1354 760022
Fax: +44 (0)1354 760037
Email: info@creativemodels.co.uk
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Cheddington Lane,
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FINAL THOUGHTS

ALL IN A FLAP...

So the dust has settled over the new Tamiya F-14A and there is now commentary on both what will be provided, but mainly, what won't be in the kit. We all now know that the contents will arrive sans weapons, but we also know that Tamiya has taken the decision to include only 'hard' wings i.e. wings that do not allow the deflection of flaps and slats – in exactly the same way that their 1:32 kit was designed.

This omission has certainly raised a few eyebrows, many wondering how such a progressive company could decide to corner-cut in such an important release. The fact of the matter is that they haven't; Tamiya's kit, as supplied will accurately portray the aircraft as

seen on the ground. Simple as that.

The nonsense about the flaps and slats being left out of the kit is just that – nonsense. More often than not, the aircraft – unless seen on approach (and how many modellers will model the aircraft like that?) – have the flaps and slats retracted, as modelled by Tamiya. Once shut down, the wings are cleaned up and then swept back into their overswept position to save space – both on deck and on shore bases. There are exceptions, but they are just that: exceptions. Tamiya's kit is perfectly correct for the majority of aircraft seen either on a carrier deck, or an airfield...

So why is there is level of hand wringing over Tamiya's omission? Because we as modellers want the moon on a stick and a

bag to put it in. We are used to being offered fantastic products that offer every single detail and set-up option and when it's not there – accurate or not – we become annoyed by the choices made by the manufacturer. The thing is, we shouldn't. Simply because a company decides to – quite rightly in this case – create a model that doesn't offer what we believe should be in the kit, doesn't mean that they are wrong, cost-cutting, or inept. In some cases – and I'll say this quietly – they may be doing it, because that's the correct thing to do!

So the next time you hear discussion over a detail or feature that is missing from a kit, take a little time to think about why that is so – you never know, the company involved just may have got it right! ■



“Because we as modellers want the moon on a stick and a bag to put it in”

1/32
SCALE

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De Havilland
Mosquito FB Mk.VI

Behold the Wooden Wonder in Stunning 1/32!

1/32 Scale Aircraft Series **De Havilland Mosquito FB Mk.VI** (Item 60326) Wingspan:515.5mm
Fuselage Length:394.5mm

Drawn up as a high speed, unarmed bomber, the twin engine De Havilland Mosquito fulfilled that role and so many more for the RAF and other Allied air forces during WWII, taking advantage of performance so astonishing it earned the aircraft its nickname: Wooden Wonder. (That, and the fact it was made largely of wood, in contrast to most of its contemporaries.) The FB Mk.VI fighter-bomber variant, which first appeared in the skies in Spring 1943, packed a punch with four 7.7mm nose-mounted machine guns and four powerful 20mm auto-cannons, plus the ability to carry four 500lb bombs. With around 2,700 produced it was the most prolifically built Mosquito variant, and this high performance, multi-role aircraft was relied on to attack sensitive enemy targets such as SS facilities, V1 flying bomb sites, and munitions factories, taking advantage of its precision low-altitude bombing skills. Now, the Mosquito FB Mk.VI gets the Tamiya treatment with the release of this exquisite model in the 1/32 Scale Aircraft Series.

★The main wing composition of a one-piece root with outer wings attached on either side, follows the real aircraft. ★Rivets are expertly depicted on parts such as engine cowlings and ailerons. ★Flaps and elevators can be assembled in neutral or down positions. ★Choose between standard exhausts or those fitted with flame damper covers, plus standard or tropical engine cowling undersides. ★2 different types of propeller blade parts are included. ★Fit wing undersurfaces with 500lb bombs or drop tanks. ★Comes with 3 marking options.



★Comprehensive 12-page B5 full color guide included.

★Included photo-etched parts frets enhance detail on seatbelt, radiator cores and more!



A Merlin 25 engines feature one-stage, two-speed supercharger parts. Engine cowlings can be removed after completion. **B** Realistic cockpit has detailed renderings of staggered seats and radio equipment. 7.7mm machine guns are recreated right down to ammunition belts. **C** Fuselage undersurface doors can be assembled as open, closed or a combination. Parts inside recreate the 20mm auto-cannons and two 500lb bombs with aplomb. **D** Plastic parts expertly capture tire tread pattern and compression. **E** Seated pilot figure is joined by a choice of navigator figures – seated or climbing ladder.

TAMIYA, INC. 3-7 ONDWARA, SURUGA-KU, SHIZUOKA 422-8610 JAPAN

★Images show assembled and painted model kits. ★Product may vary from images shown.



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Winging its way to hobbyists across the world

Brazilian aerospace conglomerate Embraer has grown into a global name thanks to successful aircraft designs such as their 170/175 series. Thanks to their “double bubble” fuselage cross section and a roomy cabin bestowing spacious seats and pleasant views, the 170/175 series is now operated by many carriers worldwide. The list includes Fuji Dream Airlines (FDA), a carrier based in Japan which debuted their first Embraer jet (JA01FJ) in July 2009. By March 2016 the Japanese company had a fleet of 10 Embraer aircraft, each bedecked in their own distinctive and bright color, and making for a cheery sight as they wing their way to destinations across the Japanese archipelago.

This is a 1/100 scale plastic model assembly kit recreating Embraer 175 aircraft operated by Japanese carrier Fuji Dream Airlines (FDA). ★The streamlined aircraft is accurately depicted parked with landing gear deployed. ★Includes weights to allow for perfect balancing of the model. ★Seats and instrument panel are shown in the realistic cockpit area. ★Fuselage features minute depictions of antennae. ★Comes with colorful marking options to create 10 different FDA aircraft.



The underside of the plane features deployed landing gear and fan blades in engines.

Fuselage length: 315mm
Wingspan: 260mm

1/100
SCALE



EMBRAER 175

1/100 FUJI DREAM AIRLINES EMBRAER 175 (92197)

Clear windshield parts allow appreciation of the detail in the cockpit interior.

Decals are included to recreate FDA logos and window frames, as well as tail logo and aircraft number stickers for each of the 10 marking options.



★Kit recreates parked Embraer 175.
★Actual JA01FJ, JA02FJ and JA04FJ are Embraer 170 aircraft.

Comprehensive set of decals allows recreation of 10 aircraft from the colorful FDA fleet!

●TS denotes spray colors. X denotes acrylic and enamel colors. Paints sold separately.

