Scale AVIATION Modeller International

BIG SCALE PHANTOM

T-BIRD WITH TALONS
BY RICHARD J. CARUANA

COLOUR PROFILE
GRUMMAN TIGERCAT

REVELL® COMPETITION
Page 455

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EDITORIAL

With the arrival of some summer weather the modeller’s urge, to sit huddled away in some little room making the latest creation, dwindles somewhat and many of you I know are out there attending model shows and rushing around to museums and air shows. Not being an avid gardener, D.L.Y man, or anything else that involves getting up sort of person, I tend to find the summer months something of a frustration. Your cement and paint dry too fast, while some vanishes don’t want to harden at all. The sun beating in my workshop room window means I can no longer see back out (too much spraying I am afraid) and having to sit for hours at a time typing does little to ease things. Modelling is certainly a recreation for most, but at times it can be a consuming passion or even an obsession. I have been told by my beloved wife that I live aircraft, and in some ways I do. She also says that if she had a propeller I would take more notice of her (untrue, I would not), but I certainly take notice if she was a Fw 190D-91.

What I really enjoy as a modeller nowadays are the model shows. I am lucky in so far as I am not well known by the majority of modellers and I can still travel around and go to shows without many knowing who I am. This is great as it allows me to remain a modeller, in a modelling world and talk to other modellers about things I am having trouble with, or passing

comment about how I like their model. Once people recognise me or put the name to the job things change and I am suddenly being quizzed about the latest from Itchigawa or Airojima, or for details on the Bloggs wonder plane which only flew for 15 seconds on the third Friday of June in 1923. This element of the post I do not enjoy as I know little about aviation history in general terms and contrary to what many think, I do not have a library the size of Hendon’s or a team of researchers to match.

I am a modeller, as most of the contributors to this magazine are, and I build for pleasure (well, OK about 50% of the time, the rest for deadlines!). I have a love of certain aircraft and I enjoy making models. I do not get too bogged down in rivet counting and although I appreciate the need for accuracy in a product, I am swayed by the many conversations I have had with people in regard to the difficulty of translating a real three-dimensional item into a scale representation of it.

Let’s enjoy modelling for what it is, a past-time. I don’t want to be consumed by the form of elitism that is so obvious in so many other hobbies and I certainly do not want to become one of, or agree with, those who are so obsessed with proving their superiority by trying to find fault in everything and everyone.

Richard A. Franks
Editor

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Cover: McDD RF-4C Phantom

made by Andy Seagar - article starts on page 444
Classic Resin Airframe

This firm is in fact nothing to do with Classic Airframes, as reported previously. It is a new name for a range of 1/48th scale resin kits produced by Planet Models.

The current releases are the Me 209/A-1 and Me 309 which retail for £30.00 each and they include decals.

Planet Models

Due in 1/72nd scale from this resin kit manufacturer are the Focke Wulf T1, Jager fitted with HeS 011 powerplants (£21.50), Blohm & Voss BV P.204 (£24.95) and the Blohm & Voss BV P.193.01 (£21.50). Each kit features Propagates decals and is available in the UK from Hannants.

Magna Models

The next couple of kits due from this source will be the Miles Master Mk IIIA with in-line Kestrel engine and optional canopies and the Bristol Brigand.

Both will be in 1/72nd scale and will comprise resin main components with metal detail parts and vac-formed canopies. They do not include decals.

Aviation Usk

The next kits from here will be the Fokker TV in 1/72nd scale, which will feature vac-formed parts for the main components and injection moulded detail parts. The UK price for this large kit will be £37.50.

AV Resins

A Japanese project in the form of the Mansyu Ki-98 has been produced by this manufacturer. Produced to 1/72nd scale in resin with metal detail parts and vac-formed clear canopies, it will also feature etched parts and decals and will retail for £29.95. This item, in 1/72nd scale, will stand 30cm tall.

Academy

The new Hurricane Mk BC was released by this source in late May. It looks good but on initial inspection it seems that there is something wrong with the cross-section, it looks too thin to us.

The final test shots of the Hawker Hunter F.6 have been seen and these look very good indeed. The UK release date seems to be imminent and it will retail for just £13.99.

The entire Academy range is imported and distributed in the UK by Toyway.

MPM

Due in late May from this source will be the Fokker G-I ‘Reaper’ in 1/72nd scale. This limited run injection moulded kit will feature etched detail parts and vac-formed clear canopies. The UK price should be £11.50.

Due in June will be a 1/72nd scale kit of the Junkers W.34 with floats and this will retail for £11.50.

Pavla

Due by the time you read this will be the Culver PQ-14A in 1/72nd scale. This tiny little American aircraft will be produced as a limited run injection moulded kit with etched brass and vac-formed clear components. It will retail for £8.95.

Due later in this series will be the Archangelskij Ar-2 and the Vought F6U-1 Pirate. These will retail for £17.50 and £11.50 respectively.

The Pavla range is imported into the UK by Hannants.

Welsh Models

New in 1/48th scale from this source is the Me262 MD-82 with a vac-formed fuselage and injected wings, tailplanes and engines. Decals for Reno Air will complete the package and it will sell for £17.25. Also available is the MD-87, which is the same as the MD-82, includes Reno Air decals and also retails for £17.25.

An MD-11 with a vac-formed fuselage and injected Pratt & Whitney and General Electric engines, plus detail parts in resin is also available. It comes with Swissair Asia decals and it sells for £31.95.

Unicorn

This manufacturer makes resin kits in a very limited form, they soon sell out and are very collectable. Recently released by them was the Messerschmit Me P.1110 ‘Fente’ in 1/72nd scale. It retails for £27.50 and examples may still be available from Hannants.

RS Models

The latest release from this source is the Letov S-50 Czech bomber in 1/72nd scale. The kit is resin and retails for £39.95 and is available in the UK from Hannants.

Airdoc

This is a new firm to us, it is based in France and they are due to release the following kits in the future. Each of the kits will be resin and 1/72nd scale. There is: the Morane Saulnier P. BB, AC, Caudron G2, Farman MF20, Bloch 151/152, Dassault Mystere 10, Voisin LA3 and the Aviatik B2.

We don’t have any confirmed UK prices for this range as yet.

Merlin

Due to join this manufacturer’s range of limited run injection moulded kits will be the Lockheed Air Express. This 1/72nd scale kit will include Texaco Petroleum decals and will retail for £11.50.

Revell

News in regard to the Shackleton and Sea Vixen from this source are a little behind at present, none of it being good. The Shackleton was received by Revell in the UK and was rejected because of the quality. This however was the fourth time this has happened! The kit is currently delayed, and we have no idea of an anticipated release date for it.

The Sea Vixen however is not expected in 1997 and there are rumours that it may not happen after all! Watch this space for further details.

Released in late May from this source was the WW11 Ground equipment set in 1/48th scale. This is a Pro-Modeller tooling from Monogram in the USA and the kit features an RAF trolley accumulator and waste oil cart, a Luftwaffe oil cart and weapons loader and a tractor and bomb trolley suitable for USAAF machines.

The set certainly looks nice, but a UK retail price of £14.95 is high.

Also released from this source is the 1/32nd scale Tiger Moth kit. Based on the old Matchbox kit this model has not been around for a few years now and I am sure it will be welcomed once again. The UK retail price is £14.95.

Hi-Tech

The latest mixed media kit from this French source is the Breguet 14 in 1/48th scale. The kit will feature injection moulded main components, resin, white metal and etched brass detail parts and decals. I do not have a confirmed UK price for this kit as yet.

In the range of resin update sets from this source is an update for the Tamiya 1/48th scale Meteor F.1, which will retail for £10.00 and a 1/72nd scale conversion of the Revell Bf 109G-10 into the two seat G-12 which will retail for £8.00.

AMT

Released in late May was the 1/48th scale injected kit of the Curtiss P-40K Warhawk from this source. The UK price is £11.99.

Hasegawa

Released in Japan in late May was the 1/72nd scale AH-1S Cobra with J.A.S.D.F markings.

In 1/200th scale there are kits of the Boeing 777-200 and B747-400 in demonstrator markings. Also in this scale will be the C-9A Nightingale.

In 1/48th scale the P-47D kit will be released with RAF markings. The UK price should be £90.00 for this kit. The Hellcat kit in this scale will also now come with FAA markings and once again it will retail for £19.00. The new 1/48th scale Bf 109G-6 has been seen and although it looks quite good, there is certainly something wrong with the tail area. The F-86 Sabre will soon be released with ‘Tenyu/Blue Impulse’ markings in one boxing or ‘Huff the Dragon’ markings in another. The F/A-18 Hornet will come with ‘World Hornet’ markings and the P-47D will be released with ‘Farheal Hal’ markings and the Ki-44-II Hei Shoki in ‘Fight Training Division’ markings. The Mitsubishi JMSF Model 33 Raiden will also be released and the Mitsubishi A6M2B-Zero will come with what we believe will be a KMC update kit in a series that is called ‘Super Detail’. We are unsure if this
range will be available outside Japan.

Available in the UK in late May was the P-51D in 20th Fighter Group markings and the Junkers Ju 88T-2 which now has a resin SC250 Stabo bomb.

In 1/72nd scale will be the Douglas A-1H Skyraider in South Vietnamese Air Force markings and the Fw 190A-6 'Nachtjäger'. Available in the UK by late May was the all-new G4M2 Betty Model 24 kit complete with the MXY7 Okita Model 11 and the Hurricane Mk Ic in night fighter markings.

Noted in Japan were the F-89J Scorpion in ANG markings. This 1/72nd scale kit is probably the Revell tooling and will only be available in Japan. Also only for Japanese consumption is a Hawker Hurricane Mk Ic in night fighter markings. As the projected new tooling of the Hurricane from this source has not been announced, we assume this is the old Monogram kit.

**Hippo Models**

The latest resin kit from this new source in 1/48th scale is the Aviatik-Berg D-1. Also just released is the German 'Flying Pancake' Sack AS.6.

Due later in the year will be the Macchi M.5, Gotha G.V, Fokker D.VII, Junkers J.9 and the Phoenix D.1.

**Famous Conflict Decals**

A new name to us. This source is listed as producing three new decal sheets. The first (4801) is a 1/48th scale sheet for five North Korean MiG-15's. Next is 4802 which offers markings for the S-55 in USAF, USN, Israeli and RAF service. The third sheet, 4803, is for the F-86 Sabre and on this sheet you get options for 'Hell Er Bust X', 'Temptation', 'The Hutt', 'Lyn Annie Dave' and 'MiG Mad Marine'.

The first two sheets retail for £4.50, while the third retails for £7.50.

**Model Art Decals**

The latest sheets from this source are for the Scimitar and Avenger (7223), Sea Vixen, F4U-7, Tucano and Nord 1101 (7224) and Dewoitine D.520, Breguet 693 and Latecoere 298 (7225). Each retails for £4.00.

In 1/48th scale there will be sheets for the Avenger & Breguet 693 (4805) and the F4U-7 Corsair, Vought 156 and Dewoitine D.520 (4806). Each retails for £5.00.

**Doyusha**

News from Japan says that this source has just released a 1/144th scale injection kit of the YS-11. The price in Japan is around £7.00.

**Fine Moulds**

The latest release from this source includes the B-1 version of the Messerschmitt Me 410 in 1/72nd scale. This kit retails for around £17.50 in Japan.

Also released by this source is a set of IJN Model 2 250kg bombs. This set is injection moulded plastic and sells for around £8.00 in Japan.

**Eduard**

The 1/48th scale kit of the Temppest V in both its basic or 'Profi Pack' (previously called 'Mr Kit') form has been delayed. Talking to Four Plus UK recently it seems the kit has been delayed by an undetermined timescale. We will keep you up to date on this.

**Monogram**

News from this camp is that the all-new kit of the Republic P-47N will be delayed. Expected deliveries in the USA are now set for June at the earliest.

Rumours from here now concentrate on the G-2 version of their BF 110G-4 in 1/48th scale. Just as a taste, next year may well see the Fw 200 and Ju 52 in 1/48th scale!

Look out for the re-issue of the 1/48th scale B-26 Marauder from this source, nothing is official but we have a feeling.

A special import of Revell Monogram America kits in May has been arranged by RevellUK. The kits on offer will only be available once this year, so act fast.

**Unknown**

A Czech source without a company name this time. A gentleman called Lumir Vesely is producing 1/48th scale resin and metal, with some etched brass, kits of the Berlin B.9 and the Focke Wulf Fw 44.

Contact him at:
Konevova 174, 130 00 Praha 3,
Czech Republic.

**JMG**

The latest release by this French source is the Bloch 155C1 in 1/48th scale. The kit will be resin with white metal and etched brass detail parts and vac-formed clear components. The kit will feature the usual high quality decals and the UK price is £49.95.

**Tamya**

The Gloster Meteor from this source is certainly eagerly awaited in the UK, but if the rumours are correct this kit has been withdrawn in Japan. The points we make in regard to this kit elsewhere may have something to do with it.

**Broplan**

New vac-formed kits from this source will be the Gulfstream IV SP ($38.00), Gulfstream IV SRA-4 ($38.00), and the Farmar F.60B4N Goliat ($28.00) all to 1/72nd scale. Each kit should also feature injection detailed parts and decals.

Due later in the year will be the Hovers MF-11 Norwegian Seaplane, CASA CN-235 and the Farmar F.168 Goliat Seaplane.

All Broplan kits are available in the UK via Swan Model Engineering.
Atelier Noix

New from this Japanese source is the Hughes 1B in 1/48th scale. The kit is resin with metal parts and should retail for around 9000 Yen (£56.25).

ABC Modelfarb

New kits listed by this firm are the DH-00 Gipsy Moth P.51, P-51A, Mustang III, Po.2, Spitfire Mk XII and the Yak 11. Each kit is to 1/72nd scale although we are unsure if they are injected or resin.

Accura Euromodel

Another Polish source, this firm is producing kits of the P-36A/H-75, I-153, PZL 50, Bloch MB 152 and the Fieseler Fi 156/C/D/K.

Cavalier Model Productions

There is no UK source for this range so contact them directly at: 366-5, Miyamae, Fuzutsuwa Kanagawa, 251, Japan.

Dragon

Many of you will have heard that this source is no longer producing aircraft model kits. This seems unlikely as they have announced a couple of new re-issued kits in 1997. Noted in a European source was the news that a limited re-issue of various kits from this company will be made by Hasegawa in 1997. We are unsure if this is just for Japanese consumption but will keep you informed if we hear more.

Azur

A new source to us. This company are listing 1/72nd scale kits of the Heinkel He 60, Breda Ba.65, Latécoère 298 and the Loire 130. I am unsure of what medium they will be produced in or if they will be a UK distributor for them.

Belcher Bits

Due before too long from this Canadian source will be an AS.3 conversion in 1/48th scale, designed for the Accurate Miniatures kit. This conversion will be in resin and will include correct interior details and a comprehensive decal sheet. This will be followed by a TBM-3W conversion in the same scale before too much longer. All Belcher Bits can be obtained in the UK from Hannants.

Airfield Accessories

An important piece of news with regard to this manufacturer was recently passed to us. With effect from the beginning of May 1997 the entire Airfield Accessories range has been purchased by Matador Models. For details of the entire range send a SAE (IRC) to: Matador Models, 6, Cliffe Road, Barton-on-Sea, New Milton, Hampshire. BH25 7PB

RugRatResins

We have been informed by this source that they have decided to discontinue production. Anybody interested in purchasing the business should contact Roger Hardy, 1 Victoria Mews, Rottingdean, West Sussex BN2 7JR. Tel 01273 304028.

1997 will see a number of 1/72nd scale conversion sets from this American source. They will include the XC-47C Float conversion and it will consist of vac-formed main parts and should retail for $19.50. This set was released in America in April.

High Planes Models

Due for release in late June from this source will be the Republic P-47N Thunderbolt. This limited run production kit will feature metal detail parts and a vac-formed canopy. Decals for two Georgia National Guard machines will complete the package.

KMC

Apart from the new accessories reviewed elsewhere, due before too long from this source will be an A-1/JH Skyraider update set for the AMT or Monogram kits (48-4015), separate control surfaces for them (48-5069) and a weapon pylon set (48-5070). A set of 11.5" Tiny Tim' rockets for the Korea War era will also be released. This set, 48-5071, will comprise two complete rocket units. The Hamilton Standard style of propeller for the P-47D will be released as 48-5072, a cockpit update for the Pro-Modeler P-39Q (48-6010).

1/72nd scale there will be an update set for the Hasegawa A-1/JH Skyraider (72-7016).

Combat Models

New vac-formed kits due from this source will include the Ar 196, Vulture Vengeance, Ki-45 'Nick', Yak-9 and the Breda 65. All will be to 1/72nd scale and will sell for $32.95 plus shipping.

In 1/48th scale there will be a Gramman Guardian and this will retail for $35.95.

In 1/24th scale there will be the Me 262 in both A and B versions, each retailing for $45.95.

In 1/72nd scale there will be a kit of the KC-97 and this will sell for $33.95.

Contact Combat at: 400 3rd Street, West Easton, PA 18042, USA.

MDC

Note that the address and telephone number for this firm has changed. The new address is: Suite 4 p/c, Business Centre, North Mill, Bridgfoot, Belper, Derbyshire. DE56 1YD. Tel 01773 821182 or 609700 Mobile: 0973 406826

Koster Aero Enterprises

The latest conversion set from this source is the XP-47F Superbolt in 1/48th scale. This conversion is based on the Monogram P-47D kit and comprises 3 resin and 4 vac-formed parts plus complete instructions.

The price in the USA for this set is $8.95 plus $4.00 shipping. Alternatively you can obtain the set from Aeroclub or Four Plus UK.

Airfix

Re-issued kits from this source recently have been the Bristol Beaufighter, Aichi D3A1 Val, Westland Whirlwind fighter and the Hawker Hunter, all to 1/72nd scale. All of these kits are in Series 2 and should therefore retail for £4.49.

Sierra Scale Models

A 1/48th scale kit of the Berenziak-Ishaev Bl rocket fighter. This kit will include injected detail parts and should retail for $19.95 in the USA.

In 1/72nd scale there will be a similar kit of the Consolidated PB-2A and this will retail for $29.95.

UK sources for this range include Aeroclub.
**Previews**

**Technical Data**
- **Kit:** Sopwith Camel 'Strip Down'
- **Manufacturer:** Eduard
- **Scale:** 1/72nd
- **Price:** £10.75
- **Type:** Etched Brass and Limited-Run Injection Moulded Plastic.
- **Parts:** Etched 118, Plastic 16
- **Decal Options:** N/A
- **Source:** Four Plus UK, 29 Westwood Gardens, Hadleigh, Benfleet, Essex, SS7 2SH
- **Tel/Fax:** 01702 559308

**Technical Data**
- **Kit:** Savoia Marchetti S.M.79
- **Manufacturer:** E.P. Original Models
- **Scale:** 1/48th
- **Price:** £149.95
- **Type:** Resin, White Metal & vac-Formed Clear.
- **Parts:** Resin 68, Metal 25, Vac 9
- **Decal Options:** N/A
- **Manufacturer:** E.P. Original Models, via Goito n.24, 200098 S.Giuliano, Milanese (Milano), Italy
- **U.K. Source:** Hants
- **Tel:** 01502 517444

**Technical Data**
- **Kit:** Kawasaki N1K1-Jb Shinden Type 11
- **Manufacturer:** Aoshima
- **Scale:** 1/72nd
- **Price:** £13.99
- **Type:** Injection Moulded Plastic.
- **Parts:** Plastic 39, Clear 4
- **Decal Options:** 4
- **Manufacturer:** Aoshima Bunsa Kyouzai Co. Ltd, 12-3 Rytusu-Center, Shizuoka City, Japan 420
- **U.K. Importer:** Amerang Ltd
- **Tel:** 01903 765496

**Technical Data**
- **Kit:** Focke-Wulf Fw 190A-8/R2
- **Manufacturer:** Revell
- **Scale:** 1/48th
- **Price:** £2.95
- **Type:** Injection Moulded Plastic.
- **Parts:** Plastic 54, Clear 2
- **Decal Options:** 2
- **Distributor:** Revell, Binney & Smith (Europe) Ltd, Amphill Road, Bedford, MK42 9RS
- **Tel:** 01234 360201, Fax: 01234 342110

**Technical Data**
- **Kit:** Macchi M.C.200 ‘Saeetta’
- **Manufacturer:** RCR Models
- **Scale:** 1/72nd
- **Price:** £14.95
- **Type:** Limited-Run Injection Moulded Plastic, Etched Brass, White Metal, Resin & Vac-Formed Clear.
- **Parts:** Plastic 15 Etched 27, Metal 4, Resin 10, Vac 1
- **Decal Options:** 1
- **Manufacturer:** RCR Models, Viale Umbria, 41, 20135 Milano, Italy
- **U.K. Source:** Hants
- **Tel:** 01502 517444

**Technical Data**
- **Kit:** Focke-Wulf Ta 152H-1
- **Manufacturer:** Aoshima
- **Scale:** 1/72nd
- **Price:** £13.99
- **Type:** Injection Moulded Plastic.
- **Parts:** Plastic 38, Clear 3
- **Decal Options:** 1
- **Manufacturer:** Aoshima Bunsa Kyouzai Co. Ltd, 12-3 Rytusu-Center, Shizuoka City, Japan 420
- **U.K. Importer:** Amerang Ltd
- **Tel:** 01903 765496

**Technical Data**
- **Kit:** Albattros D.Va ‘Mailed Gauntlet’
- **Manufacturer:** Academy
- **Scale:** 1/48th
- **Price:** £10.75
- **Type:** Limited-Run Injection Moulded Plastic, Nickel Plated Etched Brass and Resin.
- **Parts:** Plastic 42 Etched 53, Resin 2
- **Decal Options:** 2
- **Source:** Four Plus UK, 29 Westwood Gardens, Hadleigh, Benfleet, Essex, SS7 2SH
- **Tel/Fax:** 01702 559308

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**SCALE AVIATION MODELLER International**
Reviews

Blackburn Roc Mk I

Blackburn Roc Mk.I

Plastic/kit model • Model kit • Model kit (Kits) • Model kit (kits) • Model kit (Model kit)

Parts: Plastic 47, Etched 39, Clear 4

Decal Options: 3

Distributor: H.G.Hanzel Ltd, Harbour Road, Oulton Broad, Lowestoft, Suffolk. NR33 3LZ
Tel: 01502 517444 Fax: 01502 50521

The Instructions

The kit instructions consist of an A5 booklet of sixteen sides. An English translation of the history is given, the bulk of the instructions being broken down into seventeen diagrams.

The Kit

The main components are injection moulded plastic, which being a limited production kit, are slightly soft with large sprues and are a bit woolly. The brass sheet contains beautifully etched detail parts. Also included are a printed sheet for the instrument panels, a set of two vac-formed canopies and turrets and a decal sheet by Propagatem. Construction mainly followed the flow in the instruction booklet and begins with the cockpit tub. The instructions include dimensions of additional items to be scratch built and added. None of these are difficult to build and add greatly to the internal detail. The insides of the fuselage also contain sidewall detail and although this isn’t superfine it looks good enough when the kit is assembled and the insides dry brushed to highlight it. The engine is also nicely detailed and the use of brass for the rear vent flaps gives a good edge to them. Overall the main components are well formed but do need some cleaning up, and dry runs are vital. It is also necessary to remove some hefty moulding points within the main wings before these will fit together. The rear fairing behind the turret needed bending to get the characteristic hump profile and when fitting the wings I found it easier to fit the single piece lower wing to the fuselage before adding the upper sections. This resulted in a clean joint and minimal filler being required throughout this kit. The only tricky parts of the whole kit were the brass sections which form the wing undercarriage openings. These are a bit awkward but once in place the fuse edge produced looks good - shame it’s underneath and not normally seen. Two sets of canopies are included which need care in trimming as they are brittle.

Accuracy

According to Putnam’s the Roc was 35’ 4 1/2” long with a wingspan of 46’ and the completed model was within 1/2 mm of this which I think was excellent. The overall shape of the model also looks good compared with photographs of Rocs, the only part that was re-shaped to achieve this being the rear fairing.

Colour Options

Three colour options are given in the instructions, these are for L3114 of 759 Sqn. at Eastleigh in 1939, L3075 of 806 Sqn. in the Orkneys, Spring 1940 and L3086 of 775 Sqn., Egypt 1942. This last one was flown without the rear turret. The colour numbers are given for Czech Agara and Humbrol paints. I chose to make L3075 of 806 Sqn. which has the underside colour carried up to the fuselage sides. I painted mine with acrylics I'd previously mixed for other Fleet Air Arm aircraft to produce the Temperate Sea scheme of 1940, these being based on Tamiya XF-65 Field Grey (Dark Slate Grey) and XF-63 German Grey (Dark Sea Grey).

Decals

Decals are by Propagatem and three decal options are included as noted above. The decals needed no trimming and no carrier was visible once applied. They are thin and need delicate handling, but I only had colour showing through on the yellow square patch on the upper port wing.

Decal Rating: 9/10

Conclusion

I thoroughly enjoyed building this kit. It requires some time to clean up the parts and get a good fit. The brass detail is superb fine and my only criticism is the brittleness of the vac-formed canopy, but two are provided.

Recommendation

This is one for the modellers who are prepared to spend time cleaning and fitting parts. But if you’ve interested in this period the effort is well rewarded and a well detailed model can be made from this kit. For the price quoted it’s good value - you’d pay half that for just a brass detail set.

My thanks to Hannants for the review sample.

Paul G. Gilson

Supermarine Spitfire IXc

Supermarine Spitfire IXc

SPITFIRE IX M.K.

The Kit

This kit is based on Hasegawa’s recently released Spitfire VIII, with both kits having the vast majority of their components in common.

Construction

Construction is identical in format to the Mk VIII which was reviewed in detail in the February 1997 issue (see Vol 3 Iss 2 Page 7475). Three new items are included specifically for the Mk IX. The first is a set of clipped wingtips to supplement the previously supplied standard wing tips. Secondly we have the standard chord rudder which also supplements the increased chord, or pointed, rudder which fitted to the later Mk IXs and all the Mk XVs, with the latter’s earlier versions being externally identical to the later Mk IXs. The third new item is a two part chin with the early style short carburettor air intake. Again Hasegawa have included the parts featured in the Mk VIII kit, which should be used if a later style Mk IX or high backed Mk XVI, is to be modelled. Aren’t we the lucky ones! However, it won’t be possible to model the early Mk IXs as these aircraft had the broad style wing cannon blisters, while the kit features the later, narrower style. Again, the standard wheels are supplied with the spokes visible. Take care here, as some Mk IXs had hub covers fitted, but more of that later.

Accuracy

As stated in the Mk VIII review, the kit is accurate as regards the dimensions. Even more important perhaps is the fact that the completed model captures the look and sit of the original.

Colour Options

Painting details and decals are provided for two aircraft, both in standard RAF camouflage of Dark Green ad Ocean Grey uppers, with Medium Sea Grey undersurfaces. The first option is Wing Commander J E Johnson’s EN398 which carried the pilot’s initials instead of the more usual code letters, along with a Sky spinner and fuselage band. A red maple leaf badge is featured in a white circle on both sides of the fuselage under the windscreen. However, I have seen colour
profiles of this aircraft with the maple leaf shown as being green, as per the old Airfix kit which did, and still does, portray this aircraft. I suspect that red is correct, but clarification on this point would be welcome. This aircraft is fitted with the standard span wings, and the shorter style carburettor air intake. This aircraft had hub covers fitted to her mainwheels, which means that the five spoke hubs which are visible on the kit’s mainwheels should be covered with either thin plastic card or your favourite brand of filler if you decide to model this particular subject.

The second aircraft is an unidentified, aircraft from No. 421 Sqn., AU-Y, whose serial has been overpainted. This aircraft has clipped wing tips and has the later style of carburettor air intake, along with a pointed radiator. As well as having the fuselage band overpainted, this aircraft has had the spinner painted black, and carries a badge in the form of a native American’s head on both sides of her nose. On balance, I strongly suspect that this aircraft is a Mk XVI rather than a Mk IX.

Decals
All decals responded well to the use of a decal setting solution, and look as if they were painted on the completed model.

Decal Rating 10/10

Conclusion
Yes, I have been pleased, once again, especially as we now have the potential to produce a Mk IX or a Mk XVI from the parts provided, as well as all those conversion possibilities which are apparent. Perhaps Hasegawa would consider releasing a PR XI next?

Recommendation
Definitely! Buy one, or more, and enjoy. Satisfaction guaranteed. Happy modelling.

My thanks to Amerang for the review sample.

Robert Humphreys

Gloster Meteor Mk 4

The cockpit is made up of injection moulded parts which have plenty of side wall detail moulding and a fabulous rendering of the control column. The front bulkhead supports the triangular nosewheel braces and are an excellent opportunity for the super detailer as this is exactly as on the real aircraft.

Once the cockpit was painted black and dry brushed to show the side detail the fuselage was joined together with no problems at all.

The wings needed careful sanding with the tips being done separately due to the anhedral, but again went together well.

Next came the more difficult part where I had to join the wings to the fuselage by cutting out a saddle from the underside of the fuselage, but even here, with careful trimming and dry runs, the fit was excellent with no filler necessary.

The resin intakes were dealt with next, these being the parts that caused me the most difficulty with a reasonable amount of filler necessary to get a good finish.

The undercarriage is all made of white metal and is actually some of the best casting I’ve seen, including the wheels which have got excellent tread detail.

This only really left the injection moulded and smaller metal parts which again were constructed without difficulty, which has got to say something about the build quality of this kit.

Accuracy
According to “Gloster Aircraft since 1917” by Putman the span should be 37ft 2 ins with a length of 41 ft. The length scales out perfectly, but the wings appear to be about 7 ins too long. The overall appearance of the model is very much that of the elegant original.

Colour Options
The marking options are for three aircraft all of which are aluminium overall. There are two RAF options which are for No. 56 and No. 609 Squadrons and a slightly more interesting Egyptian option. I initially coated the kit in Tamiya XF19 Sky Grey as an undercoat and to check for blemishes, then sprayed with Humbrol Mattcote polished Aluminium, which sprayed extremely well.

The only area where I felt there was a problem with the colour schemes was the Egyptian wing and fuselage stripes which according to two separate references I found, should actually be black and not green.

Decals
The decals were of a very glossy appearance, on a quite large sheet, with the red roundel centres coming as a separate decal, which always prevents the problem of out of register markings. They came with no excess carrier film and adhered extremely well. I did use some micro-sol just to help the adhesion over the recessed panel lines. Again the only area that let the kit down were the diagrams which left you to make some conclusions of your own.

Decal Rating = 8/10

Conclusion
A thoroughly enjoyable kit to make without being too much of a challenge, as long as you can decipher the instructions. I think a little more varied choice of colour schemes would have been a nice extra touch and there are at least two Mk IV Meteors around the country in museums certainly worth a look at for any extra ideas.

Recommendation
The Meteor has never been a plane that interests me, however I have really enjoyed making this kit. I think the end product is a very elegant aircraft, which even my wife appreciates.

Overall I would certainly recommend this to any one with a bit of building experience. Certainly a good choice for a first time vac-form builder, as most of the parts fitted as well as any injection moulded kits you are likely to build.

The only thing I felt let down the kit were the poor instructions, which could easily be improved. The kit deserves to sell extremely well, but Tamiya’s imminent release of their Meteor must have an effect on sales. Saying that, if you want a kit which requires a little bit of work, then I recommend that you buy this one.

My thanks to Aeroclub for the review sample.

Stefan M. Good
Messerschmitt Bf 109T-1/T-2

Technical Data
Manufacturer: HP/AV
Scale: 1/48th
Price: £19.95
Type: Limited-run Injection Moulded
Plastic, Resin and Vac-formed Clear Parts: Plastic 45, Resin 23, Clear 2
Decal Options: 3
Distributor: Hannants, Harbour Rd, St Osyth, Essex, CM6 3LU
Tel: 01255 217444 Fax: 01255 200521

The Kit
The Messerschmitt Bf 109T variants have been quite popular subjects of late but have all been of the carrier service types (not that the Graf Zeppelin ever entered service). This kit enables you to build the prototype V15 (T-1) and two examples of the T-2 type that did actually enter service in Norway one in 1941 and the other in 1944.

The box art is superb and depicts Black '6' of II/JG11 disengaging an attack from a stricken B-17 above the clouds and the whole box is a terrible lure to the weak-willed modeller and will immediately set your wallet twitching!

The instructions are very clear and are in the form of a twelve page booklet to help to instil some confidence in you after viewing the injected plastic spares. These are not as bad as they look. Don't be put off, with a little cleaning up they are actually quite nice with crisp detail which really only becomes apparent when you begin to apply paint.

The canopy is a crisp, clear vac-form of which there are three, two early style canopies and one late 'square' variant. The fit is good too. All the interior, exhaust stubs and wheels are resin with excellent detail. The resin is rather good quality and is soft and easy to cut and work with. This was going to be a nice model to build and so was off to the model room for an evenings 'spooding'.

Construction
I wasn't exactly correct in saying that all the interior was resin, because it isn't. The cockpit floor and firewall are injected plastic. A resin rear bulkhead is fitted to the plastic part and the seat and its cradle attach onto it. You will have to trim and adjust some of the resin parts to get everything to fit. The instrument panel was particularly in need of some work to ensure a good fit.

As with other Bf 109E kits on the market, with which this kit has a lot in common (if you know what I mean)! I preferred to join the fuselage halves and then insert the cockpit from the underside of the fuselage so any adjustments could be made without interfering with the fuselage gluing.

One aspect of the fuselage that did not impress me at all was the bulkhead that takes the propeller, supplied as a separate part in the form of a flat disc that does not fit at all well with huge gaps left after gluing in place. My answer to this was rather heavy handed. I simply glued the separate top cowling in place and slapped loads of Squadron Green filler on and sanded the whole thing flush. I wasn't bothered about whether the propeller turned or not, so it was just glued in place later. Some of you prefer to have your props freely turning to help while away those long winter evenings, so if the propeller shaft is meant to sit in what I assume is a rubber or plastic bush which I never found in the box so I was onto a loser with the propeller from the start.

You must treat the wings like newly cut vac-form parts because the trailing edges need a lot of thinning down to get a good fine edge. The radiator inserts are resin and plastic undercarriage mounting plates, which are a little on the ambigious side, have to be glued into the wheel wells.

The fit of the wings to the fuselage is a load of old...well, it's not good! Care will have to be taken to trim and fill where necessary. It took a long time to sort that area out.

It was time to make a choice of machine type and because of my love of German prototypes the choice was not a hard one. So the V15 it was. This required the early style 'rounded' canopy and all the naval arrester hook gubbins. As I said earlier the kit is supplied or at least this one was, with two rounded hood so it is easy to display the model with the hood open (So I didn't!). I found it best to drill out some holes to fit the cable guide on the underside of the fuselage as it helps strengthen the joints.

The tailplanes unfortunately but straight onto the tail and are really too thin to drill and pin but, as the Bf 109 had tail struts, if you're careful this structure should be strong enough without.

Painting and Decals
Three paint schemes, the first is a Messerschmitt Bf 109T-2 W.Nr 7767 of II/JG11 flown by Oberleutnant Christman from Lister base in Norway during the summer of 1944. This is the aircraft featured on the box art and is by far the prettiest with a scheme of RLM 74, 75, 76 with a mirror wave of RLM 76. The decals provide you with the red paintwork on the nose but I would recommend using the decal as a mask and painting this area to get a good paint match with the spinner and supercharger intake which would require painting anyway.

The second is a Bf 109T-2 of 2/JG77 also based at Lister, but in the Autumn of 1941. The basic colours are again RLM 74, 75, 76 but this time the fuselage upper surfaces are solid RLM 75 with a mottle of RLM 74 all over extending down over the fuselage sides.

The third, and my choice, was the T-1 prototype or V15 as she looked in 1938 at Travemünde. It wears the pre-war scheme of RLM 65 Hellblau undersides and RLM 70/71 splinter pattern camouflage. On the fin is a full National Socialist Hakenkreuz Fahne (flag). This is one decal, but I opted to paint the red band on and cut out the white disc and swastika from the decal and apply it separately.

Unusually this aircraft did not wear any Balkenkreuz, but instead wore the civil registration of D-IPHR.

Decals
The decals are Propageteam and are of the usual high print quality but are very thin and won't stand much moving about before they rip, shrivel up or distort. The decal sheets (for there are two) are very comprehensive and include all the usual stencils that one would expect to find on a good old '109.

Decal Rating = 9/10

Conclusion
Oooh yes, I liked it. It required some effort to build but it was less of a struggle to build than I had expected and everything looks about right in the accuracy department though I have my doubts about the undercarriage. Something isn't quite right but I can't work out what. Also did the V15 have folding wings? If it did you will need to scribe the folds in.

Recommendation
I enjoyed this model a lot and it has taken up its place with my Bf 109 V7, V14 and V19 in my cabinet. At £19.95 it isn't overpriced and I can recommend this model highly to the more experienced modeller.

My thanks to Hannants for the review sample.

Mitch Thompson

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Gloster Gauntlet

The Kit
The plastic looks a little chunky and vague on first inspection but when you look closer there is a wealth of detail there. Excellent white metal and very nice decals. That is why I really

Construction
First thing to do is ensure that you have some good cutters and a fine razor saw. You will need them to get the parts off the sprue cleanly, as recommended in the instructions. Simple cockpit construction comprises a rear bulkhead to one fuselage half and then white metal cockpit spars, seat and control column, it all looks wonderful, although I added some stretched sprue to the sidewall for added detail. Interior colour was 80% Tamiya XF-65 Field Grey with 20% XF-21 Sky. I then dry brushed everything with Sky to pick up the extra details. The white metal instrument panel is a delight. I painted it XF-52 Flat Earth as a base colour then added XF-64 Red Brown with an old, slightly hard, paintbrush. This produced a wonderful wood effect. The instrument dials were painted XF-1 Flat Black with XF-2 White added with a pin to represent the needles etc. The panel was trimmed about 1mm each end to ensure a better fit. It looked good.

Fuselage joined well and then I added the bottom wings. Don't forget to paint the centre section of the bottom wing with your interior colour as you can see the wing through the cockpit spars and runner. The tail assembly went on with no problems.

The wing struts are in white metal and needed a little rub down to tidy up. They were glued in place carefully with Superglue. I added the undercarriage legs and then primed

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SCALE AVIATION MODELLER International
Sikorsky S.51/Westland Dragonfly

**Technical Data**
- Manufacturer: Belcher Bits
- Scale: 1/48th
- Price: £ 16.50
- Type: Resin, vac-formed Clear Plastic and Metal
- Parts: Resin 47, Clear 6, Metal 1
- Decal Options: 2
- Distributor: H.G.Hamilton Ltd, Harbour Rd, Oulton Broad, Lowestoft, Suffolk, NR32 3LZ
- Tel: 01502 517444 Fax: 01502 500521

The Kit
This is a new kit from the Canadian manufacturer better known for their resin conversion parts. The major kit parts are thickly moulded in a pale brown resin but with excellent, fine, engraved panel lines, superb raised surface detail and no pitting or pinholes. There are subtle differences between the Sikorsky and Westland machines and alternative parts are provided to build either. Internal and external detail is mostly resin with various lengths of plastic rod included to enable you to "scratch build" some extra detail. The final element is the clear vac-from acetate sheet for the extensive glazed cabin area.

Instructions
Construction takes up four pages of the 10 page instruction booklet giving a written description of each stage of the process, including eight diagrams for added clarity. It also indicates where modifications or additional detail may be incorporated and where there is a "Decision Required" concerning which version you are building. I chose the Westland option which used the different aft fuselage section, the thinner metal main rotors and the three bladed tail rotor.

Construction
The basic construction is simple although the edges of the main fuselage halves need rubbing down, not only to clean up the joint line, but to reduce the overall width to match with the diameter of the tailboom. The port side fuselage was slightly smaller than the starboard one but this was easily cured with a small amount of filler around the rotor pylon and a little sanding. A substantial nose weight is provided to counter the effect of the solid resin tail cone; the base of the forward fuselage section is hollowed out to take the weight, but I hollowed it out a little more to make sure it sat below the floor line. The cabin floor is cut from the piece of plastic card provided and the collective and cyclic pitch controls scratch built from the plastic rods. All other cabin detail is resin, and the smaller ones have to be removed from their 'backing card' by sanding. The hoist, rotor head and tail rotor all require drilling for fitting, and a small length of wire is provided to add strength to the joints and to allow the blades to turn. One very useful tip, don't stand the model on the resin main undercarriage struts without adding the plastic rod spacing struts. The resin is soft and will bend under the weight of the model over a period of time.

Regarding the vac-formed cabin, the side sections are well moulded with good relief detail for the windows and door spaces. The doors are separate so they can be fitted in the open position to show off the interior. With careful cutting you can remove the need for trimming and the fit to the resin fuselage is perfect. The curved, glazed, nose section is also a good fit to the cabin sides. The final touches are the small door fairings and runners on the cabin sides, again these are made from the plastic rods provided in the kit. There is also a resin scale figure of Mickey Rooney dressed as a pilot, which relates to one of the decal options!

**Accuracy**
The model captures the look of the Dragonfly, perfectly and the fuselage length is spot on. The rotor diameter is 1/4 inch too short, presumably based on the original 48 ft rotor span, and the height is OK, but the rotor head should be a fraction taller.

Adding such detail as the foot steps and stabiliser bars for the hoist will improve the final look.

**Colour Options**
There are seven individual aircraft given in the painting guide covering machines from the Royal Canadian Navy, the US Coast Guard, the US Marines, two different Royal Navy schemes and two from the US Navy - of which depicts the S.51 featured in the film "The Bridges at Toko-Ri". All have a single colour all over and the detail painting is described below each illustration.

**Decals**
The decals are excellent! They have a gloss finish and they adhere well to the contours of a gloss painted surface after a quick soak, and without the need for decal solutions. Only the insignia, titles, serial numbers, ID codes and warning signs are provided for each aircraft, there is no stencilling.

**Conclusion**
With a little patience and effort this kit builds into an excellent model straight from the box although there is still plenty of scope for the superior detailer to go to town and produce something really special.

**Recommendation**
Not really for the beginner. Although there weren't many problems in construction, it does require a reasonable amount of skill and experience to produce a decent finished model.

My thanks to Belcher Bits for the review sample.
Reviews

Heinkel He P.1077 ‘Julia’

The Kit
Yet another Luftwaffe 46 machine, the Julia I is a partner to the P.1077 Romeo project also available from Planet Models. The design was a point interceptor and was beaten by the Bachem Natter. To withstand the massive G forces of the initial climb and fast descent the pilot was prone in the Julia, while the Julia II and Romeo projects used a conventional cockpit layout.

This new resin kit from Planet is one of their first in 1/48th scale. It features beautifully cast resin parts with recessed panel lines and good detail. The canopy is vac-formed and thin and clear, although no spare is included.

Instructions
There is an A4-sized sheet with historical notes on the type and a painting guide on one side and a diagrammatic assembly guide on the other.

Construction
This is easy, as the kit is made up of only a few parts. I painted all the interior parts RLM 66 first and once dry I dry brushed them before assembly. The cockpit interior includes the instrument panel and twin control columns for the prone pilot. The upper decking of the fuselage is moulded separately to allow you to add all this internal detail. Once in place you will find that there is a prominent join line to fill and sand smooth. The resin upper decking also has the side windows moulded as a recess, with no glazings included on the vac-formed sheet for them. Leave these filled in until after painting etc. is completed, then carefully drill and cut them out, touch up the paint work and then fill with Kristal Klear. The nose glazing is ‘vac-formed’ and it fitted very well on my example. Only a little filler was required around the bottom edge.

Adding strengthening pins to the upper wing, tail and endplate joints, as these could easily snap once assembled

Accuracy
Going by the details given in 'German Jet Genissies' by D. Masters, the P.1077 project had a span of 15ft 1in and a length of 22ft 3.5in. This model scales out to a span of 15m 3in and a length of 22m 6in. My comments about dimensions noted in the Romeo review are applicable here also. As there is only a set of dimensions for the P.1077 project as a whole and none for each sub-project, I cannot say that these dimensions differences are much of a problem.

Colour Options
There is just one option given in this kit and that is listed as being RLM 81 and 82 in a splinter pattern over RLM 76. I did not like that scheme for this machine and therefore went for a ‘grey’ scheme of RLM 74/75 over RLM 76. Each colour was lightened and the whole model was ‘shadow shaded’ to enhance the end result. Cannon blast was added around each cannon port and these had also been drilled out to add a little depth to them at an earlier stage. The ventral skids were painted Gunmetal.

Decals
Those supplied in the kit are produced by Propagteam and they are of a very high standard. Each image is well printed with little carrier film. They are very thin however and I would advise you to transfer them carefully from the backing paper onto your model as they easily tear.

Each image was settled with a little Micro-Set and then a very small amount of Micro Sol was added to soften and draw the decals onto the model.

Decal Rating = 9/10

Conclusion
What asexy little machine. The end result is very pleasing and the kit looks good along with the usual He 111’s and Bf 109’s in my collection. Alongside the Romeo this kit certainly makes a nice addition to any Luftwaffe collection.

Recommendation
This is a nice, simple and easy kit to build. Although not for the complete resin novice I am sure that after a few simpler kits this one would be within the skills of most modellers.

If the subject and scale are up your street and you can live with £22+ for eleven parts (£2 each!), then I am sure you will not be disappointed with this kit.

My thanks to Hannants for the review sample.

Richard A. Franks

Heinkel He P.1077 ‘Romeo’

The Kit
This kit is a partner for the Julia I also available from this source. Designed as a point interceptor, the P.1077 design was beaten by the Bachem Natter. Unlike the Julia I, the Romeo (and Julia II) featured a standard cockpit layout.

This new resin kit from Planet is one of their first in 1/48th scale. It features well cast resin parts with recessed panel lines and good detail. The canopy is vac-formed and thin and clear, although no spare is included.

Instructions
There is an A4-sized sheet with historical notes on the type and a painting guide on one side and an exploded diagram assembly guide on the other.

Construction
This is easy, as the kit is made up of only a few parts. The interior parts need to be painted RLM 66 first and once dry, dry brushed to bring out the detail. The cockpit interior comprises instrument panel, seat, control column and rudder pedals. The upper decking around the cockpit area is cast separately and this allows you to add all the internal detail with ease. Once all is painted and dry you can add the upper decking and fair the joint with filler. Use pins for the wing, tail, endplates and Argus pulsejet mount joints as they will be more rigid than simple butt joints. Leave the skid undercarriage until after painting is completed. The vac-formed canopy is thin and clear and although no spare is included I had little trouble in cutting and trimming my example. The fit was good and with the level of detail in the cockpit interior, you may well wish to pose the cockpit open. I suspect the canopy is hinged to starboard, a la Me 163B.

You will have to drill out both the front and back of the Argus pulsejet engine and this will require a very large drill bit for the front intake. Once drilled you should add shutters made of plastic card to simulate the unit fitted into the real machine.

Accuracy
Going by the details given in 'German Jet Genissies' by D. Masters, the P.1077 project had a span of 15ft 1in and a length of 22ft 3.5in. The model scales out to a span of 15m 3in and a length (excluding pulsejet pipe) of 22m 6in. If the jet pipe is included the length would go up to 24ft 3in. Considering that no difference in length is given for either the Romeo or Julia, just the P.1077 project as a whole and as it was just a project anyway I would not like to say that these dimensional differences are really a problem.

Colour Options
There is just one option given in this kit and that is listed as being RLM 74 and 75 in a splinter pattern over RLM 76. As I had opted for a ‘grey’ scheme for my Julia, I decided to apply the late war ‘green’ scheme of RLM 82/83 over RLM 76. Once again each colour was lightened and the whole model was ‘shadow shaded’ to enhance panel lines etc. Cannon blast was added around each cannon port and the nose was painted yellow (RLM 04). The ventral skids were painted Gunmetal.

Decals
Those supplied in the kit are produced by Propagteam and they are therefore of a very high standard. Each image is well printed with little carrier film. My comments in the Julia review about the thinness of these decals applies here also and I advise great caution when applying them.

Micro Set solution was used to initially settle each image onto the model and then a
very small amount of Micro Sol was added to soften and draw the decals onto the model. Decal Rating = 9/10

Conclusion
Although not quite as sexy as the Jula, this little machine makes into an attractive model and it certainly looks at home alongside ‘real’ Luftwaffe types in the display cabinet.

Recommendation
This is another nice, simple and easy to build kit. Not for the complete resin novice I am sure that after a few easier resin kits this one would be within the skills of most modellers.

If the subject and scale are to your liking and you can live with £22+ for fifteen parts, then I am sure you will not be disappointed with this kit.

My thanks to Hannants for the review sample.

Richard A. Franks

E11A1 Laura

Technical Data
Manufacturer: Czechmaster
Scale: 1/72nd
Price: £18.99
Type: Resin and Vac-Formed Clear
Parts: Resin 30, Clear 1
Decal Options: N/A
Distributor: HLG Hannants, Harbour Rd, Oulton Bread, Lowestoft, Suffolk NR32 3LZ
Tel: 01502 517444 Fax: 01502 500521

The Kit
When I received this kit I had a mixture of excitement and trepidation! This was due to the fact that I have never made a complete resin kit before. The subject totally appealed to me being a flying boat but better still a Japanese one!! Czechmaster have chosen to model a very rare beast here, only 17 Lauras being produced! So this type of kit production is probably the only way that the Laura will ever be available. The mouldings in the kit are quite superb, with what flash there is being easily removed. All the parts come in a clear plastic bag with an exploded view drawing and no decals.

Construction
As mentioned I have never built a complete resin kit before so prior to starting I indulged in a little research. Referring to earlier articles in SAMI on how to use resin I started construction. The interior is the first item to be made up, this consists of four parts, floor, seat, control column and instrument panel. These are assembled using Superglue (as was the whole kit) and attached to one of the fuselage halves. The interior is then painted in grey/green, allowed to dry and the two halves joined together. As there are no sequences to follow I decided to assemble the fin and tailplanes next making sure everything was square. After cleaning up the parts the three sections to the upper wing were joined together and allowed to dry. When sufficient time had passed the radiators and upper engine housing were added, this being the only part that needed any filler to speak of. This whole assembly was then put aside and the lower wings attached to the fuselage. Make sure these are square to the fuselage and parallel to the ground. Basically the model is finished now except for the hard bit, attaching the upper wing. This is where I found the only real problem with the kit, all the interplane struts are too short by quite an amount. I was lucky here as I have some three view drawings of the Laura, but any one who hasn’t will not spot the error until it’s too late. What Czechmaster appear to have done is taken the measurements for the struts from a side view plan, this doesn’t allow for the angle of the struts so consequently they are all too short. To solve this use the kit items and make new ones from airfoil strut cut to an extra 4mm length. The kit plans lose their usefulness for a moment, working from the innermost struts on each side angle them as follows; inwards, outwards and outwards. The innermost ones are the engine supports and will need to be lined up with the housing. Once all the corrected struts are in position the upper wing can be added. Assembly rapidly approaches the end now with only the canopy, tail struts, outriggers and prop to be added, it is here you will see why the struts needed to be lengthened. If you build the model without correcting these the blades of the propeller would have cut right through the fuselage! Laura is now finished and ready for painting.

Decals
None supplied, you have to rummage in the spares box I’m afraid.

Conclusion
Well having built my first complete resin kit, it wasn’t too daunting. Czechmaster’s Laura turns into a good model that is not beyond the skills of a modeller with a little experience (especially in resin and maybe bipeels). My only gripe being the bug the kit comes in (easy for parts to get broken) and the lack of information on the supplied drawing.

Recommendation
If you have the experience and like the subject I would get one. I can’t see anyone else in the foreseeable future bringing one out and being a limited run resin kit this one will not be around for long.

My thanks to Hannants for my review sample.

Peter Fearn

Nakajima Type 91.

Technical Data
Manufacturer: Modelkrak
Scale: 1/72nd
Price: £23.95
Type: Resin and White Metal
Parts: Resin 6, Metal 31
Decal Options: 2
Source: Choroszy Model-Bud, 32-070 Kraków, Poland
Tel: 47-09-94

The Kit
When I received this model to review the first thing that entered my mind is, this kit must be awful! Remember the old saying, never judge a book by its cover, well this is just such a book! OK it’s a model! What I mean is the box for this particular model is quite simply YUK!! But when you open it, what a contrast. This kit of a Nakajima Type 91 is produced by a company I have never heard of before called Modelkrak. It is a short run multi media kit of quite exceptional standards, comprising 6 resin parts (all beautifully cast) and 31 very fine white metal castings. Included in the box is a double sided instruction sheet and a decal sheet.

Construction
As with any model assembly starts with the interior, this is very well catered for comprising no less than 8 parts all cast in white metal (it should be noted that the entire model is assembled using superglue), Modelkrak have even supplied the sidewall framing! All the interior parts were assembled and given a coat of Aotate (metallic blue/green) with other details picked out using other suitable colours. One item to note here is that the control column seems a little too long so I shortened it slightly. When I was happy with the interior I joined the two halves of the fuselage together, a word of warning, the two small lips on the lower centreline are supposed to be there, don’t file them off! The fit of the fuselage halves is almost perfect with no filler being required. The next item to attach were the fin and tailplanes, these are simple butt joints but again the fit was almost perfect. Any filling was carried out at this stage before moving on. I had decided at this point to add the undercarriage assembly, engine and the rest of the components to the fuselage before trying to attach the wing, it was here that I came across the only irritating point in the kit. The location of many of these parts was not very clearly defined. The only advice I can give here is to hold each piece in position and take a good look to see if it looks right, I found that Putnam’s “Japanese Aircraft 1910 to 1941” of great value as on page 214 there is an excellent photograph of the Type 91. Gradually all the items found their way to the correct position and it was time to add the wings! Firstly I made a jig to hold the fuselage then the cabane struts were added, the wing was then offered up and when in place a few drops of superglue added. There was now very little to do except add the wing supports. Now I don’t know if I had made an error or if Modelkrak are just being very generous but all the wing supports were too long! No need to worry, just shorten them. With everything excluding the propeller attached it was time to move on with the model.

Accuracy
According to the information at hand the model scaled out at the correct length, but was 2 mm too long in span.

Colour Schemes
With my little Type 91 now almost finished I moved onto what I enjoy the most, the painting. To bring out any blemishes the entire model was given a coat of Aeromaster primer, this was allowed to dry and then I spotted something I didn’t really care for. The fuselage has very
Wackett Trainer

CAC Wackett Trainer
Australian World War Two trainer

Technical Data
Manufacturer: High Planes
Scale: 1/72nd
Price: £14.00
Type: Limited Run Injection Moulded
Plastic and Vac-formed Clear
Parts: Plastic 20, Clear 1
Decal Options: 3
Manufacturer: High Planes Models, 127 Wheeler St, Cerrystown, Vic 3707, Australia.
Fax: (004) 75.1848
UK Sources: H.G.Hammett and Maitack Models

The Kit
This is a limited run injection kit and it was used as a stepping stone between the Tiger Moth basic trainer and the Wirraway advanced trainer.

As with many limited run injection models this suffers heavily from flash, but the single light blue sprue contains a beautifully produced mouluding with very fine engraved panel lines. You also get one vac-formed canopy, a decal sheet containing the markings for three aircraft (more on this later) and an A4 sheet containing a painting guide, a brief history of the A3-200 and written construction guide with a single exploded view of the parts that have to be assembled.

Construction
The first thing to do is to wash all the parts in mild soapy water to remove the mould release agent. Once dry you can start with the (very visible) cockpit area. This is made from a floor pan with moulded on rudder pedals and "blocks" for the purpose of mounting the two seats. I opted to make my own floor, seats and pedals so as to provide more fineness in this area.

You will need to make the two spade control sticks yourself or pinch a pair from the spares box. The two instrument panels supplied are usable with their recessed dials but there is no decal option on offer. Once the interior was painted Aluminium the two halves can be glued together, but not before plenty of dry-fitting, something you will need to do a lot of on this model. The seven cylinder Scabub radial engine is a little basic, but once tucked inside the two part cowl it looks OK. If you intend to model the Dutch version, there is no need to add the cowl as these aircraft flew without them, so a little more detailing to the engine will be necessary (good luck!).

I replaced the kit’s rather chunky scissor links with stretched sprue only to give a more scaled appearance.

Accuracy
I could not find any dimensions anywhere, not even in “Jane’s All The Worlds Aircraft of WWIT”. What I did find though, were three photos in Aero Pictorials No. 3, “The RAAF, in the Pacific War” which did give a good indication of its outlines and ‘look’. It seemed to match the outline very well.

Colour Options
Three are available from High Planes, one, an overall Yellow scheme for a Dutch training aircraft in post war guise. The second is for A3-191 of the No.1 Wireless and Air Gunnery School based at Ballarat, Victoria, 1943. This is simply Foliage Green upper and Yellow underside. The final option (and the one I chose for this review) is a training aircraft with a camouflage scheme consisting of low contrast Brown and Foliage Green upper with a Yellow underside with Trainer Bands which wrap round the rear fuselage and mid-way along the wings. I wasn’t able to find any reference to these colours (not again) so I opted for Humbrol 84 (Matt Mid Stone) and 76 (Matt Uniform Green) for the top and 24 (Trainer Yellow) for the underside. I expect those who will buy this model will have the relevant information at hand to begin with.

Decals
The sheet supplied is well printed with separate red centres for the national insignia. There is a little too much carrier film, but this can be easily trimmed away. High Planes thoughtfully supply a Yellow decal which sits around the fuselage insignia (no tricky masking needed here).

Unfortunately, when I applied Johnsons Clear to act as a gloss base it only slightly, but noticeably darkened the Humbrol Yellow paint, so the decals stand out a little lighter. (Oh, well, live and learn!) Each image nested down well with a little Set and Sol, but I did get silvery on some parts.

Decal Rating = 7/10

Conclusion
Dry fit is the name of the game with this model, take your time and you will be rewarded with a lovely little Wackett. My only criticism is the inclusion of only one vac-form canopy. I am sure other modellers, would prefer another one (‘just in case’). I am sure this would only increase the price by a small amount. This is not a pick at High Planes but all manufacturers which supply vac-formed canopies.

Recommendation
Definitely not for the novice but highly recommended to the rest of the modelling fraternity. Well done High Planes!

My thanks to High Planes for the review sample

Peter Fearis

Peter Fearis

Peter Fearis

Keep up the good work.

Thank You
Scale Aviation Modeller would like to extend our thanks to REVell, Bunney & Smith (Europe) Ltd for the generous supply of paints and accessories from their extensive range for use by the editorial team.

Thank You
Scale Aviation Modeller would like to extend our thanks to Aeromaster for the generous supply of acrylic paints and brushes from their extensive range for use by the editorial team.

Thank You
Scale Aviation Modeller would like to extend our thanks to Humbrol Ltd for the generous supply of paints from their "Warbird Colour" range for use by the editorial team.

Mark Turner

Mark Turner

Mark Turner
Lockheed F-80C Shooting Star

**Technical Data**
- Kit: Lockheed F-80C Shooting Star
- Manufacturer: Airfix
- Scale: 1/72nd
- Price: £4.29
- Type: Injection Moulded Plastic
- Parts: Plastic: 50, Clear: 2
- Decal Options: 2
- Distributor: Airfix Ltd, Marfleet, Hull, North Humberside HU 9 3NF
  - Tel: 01482 701191
  - Fax: 01482 712908
- History
  - Age of tooling: 1973
  - Revised: No
  - Also issued by: MPC (USA)

Having taken an initial look at this kit in the April edition (See Vol 3 Iss 4 Page 224), the model has now been built and we can bring you a brief look at what it was like.

**Construction**
As was stated in the initial look at this kit, it is very basic and all you get for the interior is a seat, control column and instrument panel. These fit in a cockpit tub unit and there is also a pilot figure included. No decals for the side consoles or instrument panel are included which is a shame.

Don't forget the weight for the nose, 5gm are required. Also don't forget to open up the holes in the lower wing (Pt. No. 19) for the bomb pylons and the wing tip tanks. The components which I had problems with were the intake units, Pt. No's 12, 13, 14 & 15. These do not fit very well onto the fuselage halves and there was some shrinkage in both parts. The undercarriage was good, but a little heavy and the doors are too thick really. You could replace them with plastic card, but the complex interior structure would made this difficult.

Generally fit and detail in this kit is extremely good for a kit which is over twenty years old. It is one of my favourites when I am in a nostalgic mood, as I last made this kit when I was about twelve years old.

As mentioned no instrument panel decal is included as the kit part (No 3) has a very basic amount of detail on it. Some stencilling common to each option is included on the decal sheet. Unfortunately these are not well printed. When I applied the nose decals (3 & 4) I decided to remove the forward section so that I did not have the problem of dealing with all the complex compound curves of this area. I therefore matched the dark blue of this marking to the a colour in the Revel paint range, Dark Blue 53. The decals are matt with evidence of carrier film. Trimming was necessary with all the images and I used Aero Set solution first and then applied a little Micro Sol decal solvent to soften the decal onto the model. Aero Sol decal solvent was not used as a previous test with an unwanted decal proved that this solution was too strong for the Airfix decals causing them to curl up completely.

I was happy with how the markings applied and was surprised that I had little black and silver. All of the RAF colours are available in the Xtracolor or Aero Master ranges.

The decals are semi-gloss with only a little of the carrier film evident around them. All were in register and well printed. I used Aero Set to settle the images onto the model, which had been primed in gloss varnish beforehand, and once in position were softened with Aero Sol.

**Decal Assessment** = 7/10

**Accuray**
The kit has a span of 166mm and a length of 145mm. This works out to a span of 39" 7" and a length of 34" 4". Going by the dimensions in various sources the span is listed at 39" 11" and the length at 34" 6". This makes the kit a tiny bit under sized, but quite acceptable at this scale.

**Recommendation**
I still feel that this is an excellent little kit. It is good to have the opportunity to build it again and I enjoyed making this example.

Anyone can build this kit, you only have to consider a replacement canopy if you want to detail the interior and pose the canopy open. The end product will be very good whatever you chose.

My thanks to Airfix for the review sample.

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**Bristol Blenheim Mk 1/1F**

**Technical Data**
- Kit: Bristol Blenheim Mk 1/1F
- Manufacturer: Revell Origin: Frog (UK)
- Scale: 1/72nd
- Price: £5.95
- Type: Injection Moulded Plastic
- Parts: Plastic: 45, Clear: 3
- Decal Options: 2
- Distributor: Revell, Binney & Smith (Europe) Ltd, Amphil Rd, Bedford.
  - Tel: 01234 302011
  - Fax: 01234 342110
- History
  - Age of tooling: 1969
  - Tooling cleaned
  - Also issued by: Hasegawa (Japan), Novo (Russia), Red Star (UK), UPC (USA) and DFI (Russia)

**Construction Comments**
I am sure that you have read the comments made by Revell® in regard to our questions about the re-issue of these old ex-Frog mouldings (See Vol 3 Iss 6 Page 363). This is one of the first kits to be reissued by Revell® and it is one of the better Frog kits. Details etc in this kit is limited and there is a basic interior with seat, control column and instrument panel. No decals are included for the instrument panel and the lugs for the wings are highly visible through the canopy glazing.

The details on the engines, nacelles and undercarriage legs have been greatly improved by the cleaning of the moulds and the trailing edges of the wings and the fabric effect on the rudder are most impressive.

I had no problems with this kit with the exception of the canopy glazings and the engine nacelles. The glazings do not fit well and you will have to use some form of filler to bridge all the gaps around them. The engine nacelles did not line up too well, although filler and gentle sanding cured most of this.

**Colour Options & Decals**
The two options in this kit are for BL-188 of PLeLv 41 based at Luonnetjärvi, Finland in 1941. Whilst the other is an RAF Mk If of No. 25 Squadron based at Hawkinge.

All the colours listed are from Revell's own range of paints and they could be replaced with your own preferred brand. The Finnish version is Olive Drab, which is available from the AeroMaster range as 9081, and black over Light Blue (AeroMaster 9082). The RAF is in a standard scheme of Dark Green and Dark Earth over a segmented black and silver. All of the RAF colours are available in the Xtracolor or Aero Master ranges.

The decals are semi-gloss with only a little of the carrier film evident around them. All were in register and well printed. I used Aero Set to settle the images onto the model, which had been primed in gloss varnish beforehand, and once in position were softened with Aero Sol.

**Decal Assessment** = 7/10

**Accuracy**
The kit scales out at a length of just under 40" and a span of 57". Going by the dimensions in various sources the length is listed at 39" 7" and the span at 56" 4". This makes the kit a little over size, but quite acceptable in this scale.

**Recommendation**
If you have not built this kit before then I would recommend you get one now. The cleaning of the tooling has resulted in this kit looking as good now as it did when it was first released.

The quality of the detail etc is lacking and I am sure some modellers will be able to buy this second hand in its Frog form for far less than the current price of this version, and collectors won't be interested in it at all. The main reason for the re-issue of kits of this age is to allow a great number of modellers to purchase a classic. This model is certainly easy to make and I am sure many modellers will enjoy it.

It was a bit of a step back in time making this kit, as the engineering etc is very much 1960's. The fact that the kits for the Finnish version are included on the sprues but Revell® have not chosen to give you an option to use them is a pity.

My thanks to Revell® for the review sample.

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**Richard A. Franks**
Special Update

Eduard 1/48th scale Tempest V

Although this long awaited kit has been delayed (See News Update) I though that you may like to take a look at these shots of the pre-production version of the kit.
My thanks to Four Plus UK for letting me have the above shots directly from Eduard.

F-84G Update

Many of you who read the build feature on the excellent Battleaxe kit of the F-84G in our May edition (See Vol 3 Iss 5 Page 304-314) may have noted that I was unsure of the marking carried on the side of the preserved example in Belgium (Page 313).
Well thanks to Steven de Mulder that black and white marking can now be identified. Steven says; “The marking is actually a unit badge worn on all F-84E and G aircraft of 1 Sept., 2 Wing at Florennes AB (which is 23km south of the city of Charleroi). Later on, some of the unit’s F-84Fs also wore this particular marking, albeit under the canopy/aft glass panel joint.”

Steven also notes that those wishing to make a Belgian version of the F-84G and F, including those with the above squadron badge, should note that there are decal sheets for them in 1/48th scale available from Daco Products. Daco is imported into the UK by Hannants.
My thanks to Steven for the above information.
Tony update from Aires

One of the most recent detail sets from this Czech source is for the Kawasaki Ki-61-I "Tony" and is designed for the Hasegawa kit in 1/48th scale.

This new set, 4017, comprises resin and etched brass parts. There is a single fret of brass containing twenty-nine pieces, an acetate film for the instrument panel plus twenty-six resin parts. Detailing starts in the cockpit area where you get a new seat (resin) and belts (brass). The sidewalls are cast in resin and to these are added some tiny little levers which are also in resin and the throttle levers which are supplied in brass. The main resin piece is a single casting comprising the cockpit floor and forward bulkhead complete with cowl gun ammo boxes. Onto this unit go the upper decking machine guns, which are supplied as resin parts and in the cockpit interior you add the instrument panel and its acetate film backing, control column (resin) and rudder pedals and linkage. Once this element is made up you add the rear bulkhead and seat and then you have to start doing some surgery on the kit itself.

What you have to do now is to cut out sections of the kit so that you can expose the machine guns and ammo boxes. Once you have cut out these areas of the kit you have various new panels etc supplied as brass which go in position. The resin cockpit interior can now be added along with the sidewalls and your final task is to add the upper fuselage decking behind the seat and new panels above the machine guns. The panels are supplied as etched brass and this means that you could pose them separately on the completed model.

Overall this is an excellent product. The quality of the resin parts is outstanding and there is good detail while the parts remain thin and devoid of any surface air bubbles etc. The etched parts are also excellent and the inclusion of the acetate film for the instrument panel just adds to the overall quality of the package. The inclusion of the little levers in resin is a step forward from doing it in etched brass, but they are very fragile!

This set retails for just £5.60 and this represents excellent value for money when you consider what you get in the pack. The entire Aires range is now available in the UK from Four Plus UK and it was from this source that this review sample came. If you want to know more about this or any other item in the Aires range you can contact Four Plus at:

Four Plus UK, 29 Westwood Gardens, Hadleigh, Benfleet, Essex. SS7 2SH

My thanks to Four Plus UK for the review sample.

Extratech - Scale engines & etched brass

Many of you will have heard of this Czech firm, we reviewed a couple of their etched brass sets which were supplied to us by AeroClub in last month's edition (See Vol 3 Iss 6 Page 353). This month we have a couple of their resin engines and a set of etched brass from another source in the UK, Swan Model Engineering.

The engines on offer are both to 1/72nd scale. The first is the Argus As-10C. This engine was used on a variety of trainers and sports aeroplanes during the 1930's and 40's. What you get in this set are two pieces of resin, these being the main bulk of the engine and the rear section complete with the carburettor. Each is beautifully cast with no air bubbles and very delicate detail. Along with this there are two frets of etched brass detail. This detailing comprises the ignition harness, baffle plate, lifting eyes and various panels etc. The remaining etched brass parts are the engine bearings and to get the correct thickness they are made of two pieces of etched brass per side.

Overall this engine is excellent, all you have to do is remember that because the engine is accurately to scale, you will have to make room for it within the airframe.

The other engine on offer is the Junkers Jumo 213. This unit is made up of five resin parts comprising the main engine casing, rear carburettor assembly, supercharger, upper casing and the propeller shaft. To this are added the etched brass parts, these being the ignition harness, supercharger casing detail, exhaust ports, propeller shaft detail and various other bolts, covers and fittings. As with the As-10C, this engine comes with a set of etched engine bearings. This style of installation is suitable for the Fw 190D-9 and once again to achieve the correct thickness the bearings are made up of two etched pieces per side.

Both of these engines are quite superb. The level of detail and the quality in which they have been presented and manufactured make each well worth considering. To be able to add all that detail to a model would take hundreds of hours if done from scratch, so for the cost of these excellent sets you can keep your sanity!

The other item sent to us by Swan is an etched fret for the Mig-15. This set, 0-27, comprises two frets containing twenty-eight pieces and an acetate backing film. The detail offered in this set is designed for the K.P kit of the Mig-15 and comprises a new instrument panel, side console detail and a framework for the rear section of the canopy. Externally you get new sets of undercarriage doors, complete with separate internal detail. Separate flaps and interior detail are also included and the set is completed with detail for the wheel hubs of each main wheel.

Overall each of these products is well worth purchasing if the subject matter is of interest to you. The quality and detail offered in each are excellent and the price is not high. If you want to know anything about the entire Extratech range then you should contact:

Swan Model Engineering Ltd.
Chester House, The Dingle, 
Colwyn Bay, Clwyd, LL29 8HF 
Tel/Fax: 01492 532014

My thanks to Swan for the review samples.

Invicta Model Accessories, a new name

Invicta Model Accessories is a new company in the UK and its first product has recently reached us for review.

The item we had was very much a first production version and I did not have the full production instructions and packaging. The item itself is a loading trolley and a torpedo suitable for RAF and all other suitable machines from the WWII period. This item is currently produced in 1/48th scale, although later it will be released in a package of other items suitable for the Revell Beaufighter in 1/32nd scale.

The loader is a scissors type which allows the torpedo to be lifted up into the bay etc of the aircraft. The torpedo is a standard WWII type and is made of resin with a white metal propeller. The loader is made entirely of white metal and you have the option of having the scissors assembly in the 'up' or 'down' position, depending on how you need to display it. The main chassis is cast as one piece complete with its castor wheels. To this should be added the screw jack assemblies, scissors and the pick-up cradles for the torpedo. The only other task is to add the two main, large central wheels for the trolley and that is that.

Overall the trolley should be a BattleShip Grey colour overall and the torpedo is supposed to be a dull steel with either a black, red or green warhead. If you want to see a real version of this unit you should call into the RAF Museum at Hendon in north London, as they have a fully restored version on display in the main aircraft hall by the Beaufort.

The price for this product is £14.95 and it will certainly be very useful with the forthcoming Beaufighter kit from Tamiya. This item is available from Hannants or from Beaneey's Hobbies in Sittingbourne. Contact them on 01795 472815 for more details.

My thanks to Beaneey's for the review sample.
**Latest from KMC**

A mass of resin update sets from this American source have recently made their way to us for review. There are nine sets in total, only one of which is in 1/72nd scale.

We will start with the 1/72nd scale set first. This is product number 72-7015 and it offers four Martin Baker Mk 7 ejection seats. These seats come complete with all their harnesses etc. cast onto them. Items such as the firing handles have to be added from copper wire and the leg restraints have to be made from scrap card. The instruction sheet included with this set gives a detailed painting guide for the seats.

A set of four Martin Baker Mk 7 ejection seats are offered in 1/72nd scale as 72-7015

The first item in 1/48th scale is product 48-4014 which is the excellent update set for the interior of the Airfix Mosquito which was mentioned a few months ago (Vol 3 Iss 5 Pg 276).

This is a boxed set and it contains thirteen resin parts. The set does include additional copies of the smaller and more fragile pieces, just in case any of them get broken. Detailing will require that you remove the moulded detail from the interior of the fuselage halves in the Airfix Mosquito kit. Once this is done the whole area is detailed with new resin overlays. The access door on the fighter can be removed from the kit part as a replacement resin one is included in this set. All the belts on each seat are moulded on and the other parts include the forward bulkhead and instrument panel, rudder pedals, control column, pilot's seat, radio and pilot's refuel bottle.

It should be noted that the painting details given in this kit are incorrect in regard to one area. This is the radio combination on the rear shelf. These units, R1155/1154 combination, should be black overall with red, yellow and blue knobs on the larger unit. Not interior green with a black face as the instructions say.

Overall this set is quite excellent and it deals with one of my favourite types.

A set of separate control surfaces are offered for the Hobbycraft P-40B/C as 48-5064

The next set is product 48-5064 and this is a set of separate control surfaces for the Hobbycraft Curtiss P-40BC series of kits.

The set comprises eight resin parts. These include the rudder complete with a separate trim tab, the ailerons and elevators and the flaps. Each is very well cast with no sign of imperfections.

The interior of the Hasegawa 1/48th scale 168 Helicat gets updated thanks to set 48-6009

To go along with the interior update set, 48-5065 offers separate control surfaces for the Mosquito.

The Mk 13 torpedo suitable for US Naval types of WWII is offered as 48-5066

To go along with the Mosquito detail set is product 48-5065. This offers separate control surfaces for the Mosquito. There are seven resin parts in this set and these are the ailerons, rudder and flaps. Each is well cast with no sign of air bubbles etc and the fabric finish on the rudder is very well done indeed.

The next item is 48-5066 and this is a Mk 13 torpedo. This item was used by the US Navy in WWII and it could be carried by the Avenger. The product comprises sixteen resin parts and these are basically the main body of the torpedo, the fins and a complete set of spares, the twin propellers (also with a set of spares) and the wooden box cover for the tail. This wooden box cover was fitted prior to the torpedo being handled on the deck. This box would disintegrate once the torpedo had hit the water.

Full painting and colour notes are included on the instruction sheet, as well as a complete assembly diagram.

The next item is in fact a conversion. Product number 48-5067 is for the MG-21R and it comprises five resin parts. The main resin part is the D-pod reconnaissance pod and this is backed up with the two wing mounted aerial containers and the switch panel and radar scope for the cockpit interior.

The instructions give a full painting guide for the interior parts as well as illustrations in regard to their position. Notes about the colour scheme of the pod in relation to the overall scheme of the MG-21 are also noted, so that modellers know what scheme is applied in relation to bare metal or camouflaged machines.

The Mk 13 torpedo suitable for US Naval types of WWII is offered as 48-5066

The next item is set number 48-5068 and this offers a complete set of sidewinder rails for the F-4 Phantom. The set contains six complete rails for the type and each is well cast with excellent detail and no surface imperfections.

The final two sets are interior updates, the first is 48-6008 and it is for the P-40BC. Designed for the Hobbycraft series of P-40BC kits, this set comprises twelve resin parts and an additional six to act as spares for the smaller and more fragile pieces.

Detailing consists of a new cockpit floor, sidewalls, instrument panel and seat. The seat has the belt detail moulded onto it. The remaining resin parts consist of a control column, rudder pedals and headrest cushion. Each part is well cast with excellent detail and the instruction sheet notes painting details for all the smaller parts.

The final set is product number 48-6009 and this is for the Grumman F6F-3 Hellcat from Hasegawa. The set comprises twelve resin parts. These consist of a new floor, rear bulkhead, instrument panel, seat complete with cast seat belts, side consoles, two cockpit lights, rudder pedals, the gun sight and an oxygen bottle.

Overall each of these sets is well produced to a high standard and they offer excellent opportunities to detail your kit very easily.

The UK retail prices for these products should be:

- 72-7015 £4.99 48-4014 £15.99
- 48-5068 £2.99 48-6008 £11.99
- 48-6009 £7.99

The entire KMC range is imported into the UK by Hannants.

My thanks to KMC for the review samples.

**S.M.79 Update from E.P Originals**

Many of you will be familiar with this Italian firm, as we have reviewed their excellent kits in the past (See Vol 3 Iss 2 Page 118). One of their most recent releases is an improvement set for the S.M.79 from Airfix.

This set comprises resin, white metal and vac-form clear parts. The resin parts consist of a completely new fuselage, tail and rudder, engine cowls and wheels. The metal parts include the engines, tail struts, oleo legs and exhaust pipes. The vac-form parts are the side windows and ventral gun position.

The fuselage is hollow cast and split vertically. The upper gun position is supplied as an insert and the crew access door is also included separately. Detail for the interior will be up to the modeller to add, as none is included in this set or in the Airfix kit. The engines are superbly cast with excellent detail and the engine nacelles, a point which was very bad on the Airfix kit, are cast in resin with the correct profile. The inclusion of white metal undercarriage units is a sound one, considering the weight of the revised resin fuseage etc and these are complemented with new resin main wheels.

Although you will not have a lot of the Airfix kit left by the time you have installed this improvement set, the model will at least look like an S.M.79!

These sets are designed for the more experienced modeller and as they have to come from Italy and are a limited product, they tend to be expensive by the time they arrive in the UK. At present I do not have a UK price for this set, or confirmation of availability. The E.P Original range has been, in a limited number, brought into the UK by Hannants and a call to them on 01502 517444 should confirm some details. Alternatively you can contact E.P directly at:

Via Goto no 24, 20089 S.Giuliano, Milanese (Milano), ITALY.
Tel/Fax 02-9880025
e-mail EMPARA@LOTTLINE.ITALY
My thanks to E.P Originals for the review sample.
Latest from Eduard

Never a month goes by without there being a couple of sets of etched brass being released by this Czech firm. The latest selection of sets which have made their way to us via Four Plus UK and they comprise four in 1/72nd scale and three in 1/48th.

The cockpit, including a new throttle box. The cockpit floor gets new kick plates, seat frame, seat and rudder pedals and of course there is a new instrument panel complete with its acetate film backing. Externally there are new separate landing flaps, wheel hubs, ignition harness for the engine and the control horns for the ailerons.

The C-47 is a delicate aircraft in 1/72nd scale and this is reflected in the size of these etched parts. Not one for modellers with poor eyesight or shaky hands!

A neat set of bomb cells for the interior of the Il-111 in 1/72nd scale are offered in set number 72-116.

Starting with the 1/72nd scale sets, the first of which is 72-176. This is for the Heinkel He 111's bomb bay and it is designed for the Il-111 kit. The set comprises two frets, one of seventeen and the other of forty parts. What you basically get are the vertical bomb cells for the bomb bay area. There are four cell units per side and these have been simplified in this set by just giving you one unit of all four joined together. The interior walls for each unit are included as separate pieces however. Having cut the bomb doors out of the fuselage halves, you get a new central walkway onto which can be fitted the new bomb doors and the framework onto which is mounted the bomb cells.

Overall a neat little set, but a topic which needs to be covered in 1/48th scale for the Monogram kit.

The Mitsubishi AS42a Claude from Fujimi gets the Eduard treatment with set number 72-213.

Next is set number 72-213 and this is for the Mitsubishi AS42a 'Claude'. Designed for the Fujimi kit this set comprises one fret of fifty-five pieces plus the usual acetate film backing for the instrument panel. There are lots of new detail parts added to each side of the cockpit.

If you want to add detail to the new 1/72nd scale Spitfire Mk V from Revell look no further than set number 72-225.

Set 72-225 is next and this is for the excellent little Spitfire Mk V which was recently released by Revell. This set comprises one fret of sixty-one pieces and an acetate film. Detailing offered in the set consists of new sidewall framing for the cockpit interior plus all the controls etc on each, a new control column, instrument panel complete with acetate film backing and a complete new rear bulkhead onto which goes the new etched seat and harness. A separate access door complete with crewhatch is also included. Externally you get new screens for inside the radiator, undercarriage doors, a canopy release lever and separate flaps.

Overall a good set but one which once again tries to replace three dimensional items with a two-dimensional product, namely the control column, cockpit interior framework and the pitot head.

The all-new tooling of the Mitsubishi G4M2/3 Betty by Hasagawa can have more detail thanks to set number 72-226.

The final 1/72nd scale offering is 72-226 and this is for the all-new kit of the G4M2/3 Betty from Hasagawa. This new set comprises one large fret of one hundred and two pieces and of course the usual acetate film. Detailing comprises a new instrument panel, rudder pedals, throttle control levers, seat harness, and various boxes of radio and electrical equipment. You also get new interior detail for each bomb door, a retaining strap and propellers for the torpedo and sway braces and nose spinners for each bomb. The DF loop is also replaced along with the antenna on either side of the fuselage and on the nose. The final item is the crew access door in the port fuselage side, which is supplied separately in this set. A mass of ammo drums are also included and these have to be rolled and secured in position, in 1/72nd scale, I think not!

Moving on to 1/48th scale now, the first of which is 48-192. This is set for the Messerschmitt Bf 110G and is designed for the excellent new Monogram kit. This set comprises one fret of one hundred and ten pieces and the acetate film. Detailing begins in the cockpit and here you get new levers for the throttle box, rudder pedals, instrument panel and acetate backing film, seat harness for the pilot's and gunner's seats, ammo belts for the rear MG 81Z and various fittings for the interior and cockpit canopy. Externally you get a new set of matrix for each engine nacelle, ribs for the interior of the wheel wells, a new flap for the radiators, torque links for the oleo legs and a set of straps for each drop tank. The last items on the fret are the ventral antenna, torque link for the tail wheel, DF loop for on top of the canopy, the FuG 16ZY aerial for the undercarriage of the fuselage and the radio altimeter antenna for the port wing under surface.

This is certainly a neat little set for an already excellent kit.

Next is set number 48-189 and this is a set of flaps for the Avenger produced by Accurate Miniatures. This set consists of just one fret containing twenty-four pieces. The way you would expect you have to cut away the flap area from each wing of the Accurate Miniatures kit and then the brass parts detail the upper surface of the interior of the wing. The flaps are made up of just two main parts, unlike previous sets you do not have to add the ribs separately. In this set you just bend the ribs through 90 degrees and this certainly makes life a lot easier all round. The same applies to the smaller inner flap on each wing and that is basically that.

If you have the kit, add the KMC wing fold and this set of flaps, plus maybe the MDC conversion you will have... a E50 Avenger!

If you thought you could not add any detail to the Accurate Miniatures 1/48th scale Avenger, you were wrong. Set 48-189 offers you separate flaps for the kit.

The 1/48th scale Betty from Tamiya gets a little extra detail and a lot of ammo drums thanks to set number 48-191.

The final set is for the Betty and is designed for the excellent new kit from Tamya. This set, number 48-191, comprises one fret of ninety-nine pieces, plus the usual acetate backing film. Detailing begins with full sets of harness for each seat, new throttle controls and miscellaneous fittings for the cockpit interior. A completely new instrument panel with acetate film backing is also included, plus a set of rudder pedals. There are lots of details for the bomb aimer's position and the same applies to the rear gunner's position. Here you come across the ammo drums that were in the 1/72nd scale set reviewed earlier. These have to be rolled up and there are no fewer than thirty-seven to make up.

I for one have been looking forward to a set for the Betty, as it is a kit I am looking forward to making, this one is a bit of a disappointment. All I can hope for is that someone will release a set of resin or metal ammo drums for this kit before I get round to making that up.

Overall each set offers a good selection of details for a mix of kits. The tendency to make up three dimensional items in two-dimensional etched brass still exists and I am sure this is just so you can make up a good interior from the set, without recourse to making up the rest yourself.

The prices for the above sets are as follows:

<table>
<thead>
<tr>
<th>Set Number</th>
<th>Price</th>
</tr>
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<tbody>
<tr>
<td>72-176</td>
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</tr>
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<td>72-213</td>
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<td>£6.45</td>
</tr>
<tr>
<td>48-189</td>
<td>£19.45</td>
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</tbody>
</table>

All of the above prices are from Four Plus UK, who also supplied the above samples for review. If you want to know more about the Eduard range you can contact them at:

Four Plus UK
29 Westwood Gardens, Hadleigh
Brentfield, Essex. SS7 2SH
Tel/Fax: 01702 559308
My thanks to Four Plus for the review samples.
Decals

New Spitfire sheet from ExtraTech

One of the most recent decal sheets from this Czech firm has made its way to us from Swan Model Engineering, a UK supplier of the range.

The sheet on offer is D-04 which is for the Supermarine Spitfire Mk Vb. It offers a selection of six options for machines flown by Czech pilots within the RAF. The six options are as follows:

1. Mk Vb, AB133, YT*E of No.65 'East India' Sqn. and flown by Flt Lt. František Loucky while based at Debden in December 1941. This machine was initially painted Green and Dark Earth over Medium Sea Grey, however this aircraft was later oversprayed at an MU with the later Dark Sea Grey in place of Earth. This colour however was lighter in shade than usual Dark Sea Grey. The aircraft is also very dirty and shows signs of many repairs.

2. Mk Vb, W3962, RY*Y of No. 313 (Czech) Sqn. This machine was flown by F/O. Karel Vykoukal and made a crash landing some 6 miles west of Penzance after an engine failure in December 1941. This machine is Dark Sea Grey and Green over Medium Sea Grey with a Sky spinner and fuselage band.

3. Mk Vb, BL487, DU*Z of No. 312 (Czech) Sqn. This aircraft was flown by Sgt. Josef Kepart based at Harrowbeer in the Summer of 1942. This machine is in the same overall scheme as the previous option.

4. Mk Vb, EP660, DU*O of No. 312 (Czech) Sqn. This machine shot down a Do 217 whilst piloted by Sgt. Miroslav Liskutín. It is in the same scheme as the previous option.

5. Mk Vb, BL517, NN*E of No. 310 (Czech) Sqn. It was flown by F/O Bohuslav Kimlicka. This is the machine which was in combat with Oblt. A. Faber of III/JG2. Although Kimlicka was shot down in this combat, receiving a broken leg in the process, Faber had to land his damaged machine at RAF Pembrey giving the Air Ministry their first intact example of the 'Butcher Bird'.

Once again this machine is in the same overall scheme as the previous four options.

6. Mk Vb, EP646, NN*E of No. 310 (Czech) Sqn. and flown by Flt Lt. Bohuslav Kimlicka. This machine is in the same overall scheme as the previous options although it features white stripes around the forward engine cowl.

All of the options on this sheet feature yellow leading edges to the outer section of each wing.

The decal sheet includes sufficient markings for two of the six options on it. The fuselage and wing roundels feature separate red centres. There are no stencils included on the sheet, although the rest of the markings are well printed with no excess carrier film present.

The excellent little decal sheet features all the markings to make up two of the six options on offer.

This sheet is well worth considering and although I don't have a confirmed UK price you should contact Swan Engineering for more details. Phone them on 01492 532101 for more details.

My thanks to Swan for the review sample.

New from Aussie Decals

The latest selection of decals from this Australian source has made its way directly from them to us for review. There are ten sheets, all to 1/72nd scale although they are also available in 1/48th scale.

The first sheet is A72002 and this is for the Boeing-Vertol CH-47C Chinook of No.12 Sqn. RAAF. There is not really a selection with this sheet, instead it offers sufficient individual markings for a number of options. The main option listed is 07 and this is Tan (1pt FS 34087 and 4pts 32019) and Green (FS 34102) in a camouflage pattern overall. The sheet also notes the 1977 scheme of FS 14087 overall with a white roof for A15-007 and the initial scheme in 1975 of FS 14087 overall if the modeller wishes to consider these styles of marking.

The next sheet is A72013 and this is for the F/A-18. Two options are offered, one single seat and one two seat. The single seater is A21-129 and this is the CO's aircraft of No.75 Sqn. RAAF. This machine is Blue Grey (FS 35237) over Grey (FS 36375). The radome is Radome Tan (FS 33613) and the undercarriage etc are gloss white. Both early and late style of 'Top Hat' motifs on the tail. The other option is a two-seat machine of No.77 Sqn. RAAF. This machine carries noseart, 'Daphne' a scantily clad young lady as always! This machine is in the same overall scheme as the single seat version.

All markings and stencilling for each option are offered on this sheet. The options offered are also available in 1/48th scale as sheet A48013. The next sheet on offer is A72015 and this is for the GD FB-111A. The sheet allows you to make up the first two machines delivered to the RAAF, these being A8-265 of No. 1 Sqn. and A8-270 of No. 6 Sqn. These two machines carried special lightning flashes on the tails. All other machines were delivered directly from the USA and did not carry the flashes on the tail. All serial numbers for these machines are included on the decal sheet and it also includes a full set of stencilling.

This sheet's options are also available in 1/48th scale as A48012.

The next sheet is A72016 and this offers options for three P-40's. The options on offer are:

1. P-40E, F583, OK*O of No. 450 Sqn. RAAF in North Africa in 1943. This machine has a large boxing Kangaroo painted on the port side of the engine cowl.

2. P-40E, EP73, CV*V of No. 3 Sqn. RAAF in the Middle East in 1942. This machine is in the same overall scheme as the previous option and it also carries nose art on the port side of the engine cowl.
this is for the Spitfire. There are options for three machines and these are:

1. Spitfire Mk VIII, ZP of No. 457 Sqn. RAAF based at Darwin in 1944. This machine is Foliage Green and Ocean Grey over Light Grey. Noseart, 'Run Tojo Run', is carried on the port side of the fuselage.

2. Spitfire Mk Vc, A58-137, UP+T of No. 79 Sqn. RAAF in 1945. This machine is Foliage Green over Azure Blue with the entire tail area in white. It carries noseart on the fuselage side with the script 'Down with Everything'.

3. Spitfire Mk Vc, A58-250, SH*K. This machine is natural metal overall with an Insignia Red spinner and a matt black anti-dazzle panel on the top of the engine cowling.

The instructions note that the name

although there is no stencilling. The contents of this sheet are also available in 1/48th scale as A48013

The next sheet is A72018 and this is for the Boston III/B-20G Havoc. There are two options on offer and they are:

1. Boston III, A28-15, DU*Q which was operated by No. 22 Sqn based at Goodenough Island in 1943. This machine carries a shield and logo 'Spirit of Sport' on one side of the fuselage and a cartoon of Tojo being hit in the eye with a boomerang on the other.

This machine is Dark Earth, 25's are offered on A72018

No. 79 Sqn. RAAF in 1945. This machine is Foliage Green over Azure Blue with the entire tail area in white. It carries noseart on the fuselage side with the script 'Down with Everything'.

2. A-20G Havoc, A28-60, DU*Y 'Hilda Shane' of No. 22 Sqn based at Noemfoor in 1944. This machine is Olive Drab over Neutral Grey and carries nose art on the port fuselage side.

National and individual markings are included although there is no stencilling. These two options are also available in 1/48th scale as A48015.

The next sheet on offer is A72020 and

Two PBY-5A Catalina are offered on A72021

Once again this sheet includes all the national and individual markings for all four options on offer. There is no stencilling. The options on offer are also available in 1/48th scale as A48017.

The next sheet is A72021 and this is for the PBY-5A Catalina. There are three options on offer and they are:

1. PBY-5, A24-91 'Sea Hornet' of 111 ASR Flight in 1945. This machine is Intermediate Blue over Black with a skull and crossbones motif on the port side of the fuselage side.

2. PBY-5, A24-10 'Dagwood' of No. 11

Two PBY-5's and a PBY-5A Catalina are offered on A72021

this offers markings for the B-25. There are four options on this sheet and they are:

1. B-25D, A47-2, KOP*Z, 'Stormbird' of No. 2 Sqn. in 1944. This machine is Olive Drab over Neutral Grey.

2. B-25D Mitchell, A47-34, KO*E, 'My Favourite' of No. 2 Sqn. in 1944. This machine is Foliage Green overall.

3. B-25J Mitchell, A47-26, KO*K of No. 2 Sqn. in 1944. This machine is Olive Drab over Black.

4. B-25K Mitchell, A47-44 which was never commissioned into squadron service. This machine is natural metal overall and features unusually large roundels on the fuselage.
Decals

In 1/72nd scale you get roundels in 18, 22, 24, 30, 36, 48, 50 and 66 inch sizes. In 1/48th you get them in 18, 22, 24 and 30 inch and in 1/32nd scale you get 22, 24 and 30 inch sizes. The third sheet in this set offers the three stripes of the tail flash. They are offered in separate strips, so you can cut them to size.

The final sheet in this selection is 707 and this offers RAAF WWII A & B Type roundels and fin flashes. The roundels are offered in 18, 22, 27 and 33 inch sizes and there are three lengths of two different widths of tail stripes also included. To achieve the B type roundel from the A type the sheet includes the larger centre dots of the B type which are overlaid onto the A type.

These markings can also be obtained in 1/48th scale as sheet number 708 and in 1/32nd scale as 709.

Overall this selection is excellent and the quality of each image is very good. The carrier film is not obtrusive and each image is glossy, so they should pose no problem in applying. The sheets reviewed above are available in the UK from Hannants and they retail as follows:

<table>
<thead>
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<th>Sheet Number</th>
<th>Price</th>
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<tbody>
<tr>
<td>A72002</td>
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<tr>
<td>A72013</td>
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</table>

If you would like to know more about Aussie Decals you can contact them at:

P.O. Box 94, Redbank, QLD 4301, Australia.

My thanks to Aussie Decals for the review samples.

Latest from Daco

The well known Belgian manufacturers have recently supplied us with a selection of the latest decal sheets they have produced. There are three in 1/72nd scale and six in 1/48th scale.

Starting with those in 1/72nd scale, the first is D7231 and it is for the Thunderstreak and Thunderflash. There are five options on this sheet and they are as follows:

1. Thunderstreak, FU-65, RA-5 of No. 27 Sqn., Belgian A.F. This machine is bare metal overall with blue and white stripes on the nose, rudder and wing tips.
2. Thunderstreak, FU-197, 85-J of No. 31 Sqn., Belgian A.F. This machine is bare metal overall with black and yellow stripes on the nose, rudder and wing tips.
3. Thunderstreak, FUR-17, H-8-R of No. 42 Sqn., Belgian A.F. This machine is bare metal overall with a white tip to the fin.
4. Thunderstreak, FU-30, 3R-F of No. 1 Sqn., Belgian A.F. This machine is bare metal overall with a white tip to the fin and white and black rings around the nose.
5. Thunderstreak, FU-42, YL-W of No. 3 Sqn., Belgian A.F. This machine is bare metal overall with a white tip to the fin, white and black stripes on the rudder and a green ring around the nose.

The decal sheets included in this set include national markings and full stencilling for one machine, plus unique markings for each squadron. The sheet also contains the anti-dazzle panel for the upper decking and the red no-talk markings for the wings. The instructions are supplied as a colour sheet for the overall schemes and another black and white sheet which features the stencil placement on the machines. What you do not get are the squadron codes and serial numbers or the painted nose, tail and wing tip markings. These are offered separately on sheets D7234 (codes) and D7236. This sheet is available in 1/48th scale as D4831.

The next sheet is D7233 and it is for the Thunderstreak and Thunderflash in camouflage. There are three options on this sheet and they are as follows:

1. Thunderstreak, FU-156 of No. 1 Sqn., Belgian A.F. This machine is camouflage in Medium Green (FS 24102), Dark Green (FS 24064) and Tan (FS 20810) over Light Grey (FS 26622). The tip of the fin is white.
2. Thunderstreak, FR-17 of No. 42 Sqn., Belgian A.F. This machine is in the same camouflage scheme as the previous option.

The next sheet is D7234 and this is a large sheet of black and white serial numbers and letters for the Thunderstreak and Thunderflash in bare metal finish. The sheet includes a selection of 'FU' and 'FR' letters in black and white as well as larger selections of black numbers and letters for nose and wing markings. This sheet can also be obtained in 1/48th scale as D4834.

Moving on to 1/48th scale now, the first sheet on offer is D4832. This sheet offers five options for camouflage versions of the Thunderstreak and Thunderflash in Belgian Air Force markings. These options are for NATO era machines and they are as follows:

1. Thunderstreak, FU-133, ZL-6 of No. 21 Sqn. Belgian A.F. This machine is NATO Dark Green and Dark Sea Grey over PRU Blue. This machine has red and white stripes on the rudder, the nose and on the wing tips.
2. Thunderstreak, FU-84, 85-C of No. 31 Sqn. Belgian A.F. This machine is in the same overall NATO scheme as the previous option. This machine has yellow and black stripes on the rudder, around the nose and on the wing tips.
3. Thunderstreak, FR-21, H8-V of No. 42 Sqn. Belgian A.F. This machine is in the same overall NATO scheme as the previous option.
4. Thunderstreak, FU-63, 06C of No. 2 Sqn. Belgian A.F. This machine is once again in the same overall NATO scheme as the previous option. It features white, red, yellow, white, yellow, blue and white stripes on the rudder and wing tips.

Once again national markings and stencils for just one option are included on the sheet. Serial numbers and squadron markings are available on other sheets in the range, the serial numbers are on D4834 and the squadron markings on D4836. The options offered on this sheet are also available in 1/72nd scale as D7232.

The next sheet is D4834 and this offers a large selection of white serial and squadron numbers for the Thunderstreak and Thunderflash in NATO camouflage. The large A4 sized decal sheet includes four styles of characters, the short and rounded type used by the 2nd Wing, the high and block type used by the 10th Wing. This sheet also comes in 1/72nd scale as D7234.

Next is sheet number D4836 and this is a sheet of squadron colours for the fin, wing tip and intake of the Thunderstreak F-84F's. This sheet offers markings for ten machines as follows:

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<tr>
<th>Sheet Number</th>
<th>Price</th>
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<tbody>
<tr>
<td>A72015</td>
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</table>

If you would like to know more about Aussie Decals you can contact them at:

P.O. Box 94, Redbank, QLD 4301, Australia.

My thanks to Aussie Decals for the review samples.
of 1967. This machine is in the NATO scheme but has the entire tail and leading edges in white. The extreme front of the chin intake is in red.

As stated this sheet includes just the colourful squadron markings for each of the above options. There are no other markings included so they will have to be obtained from other sheets in the range. This sheet can also be obtained in 1/72nd scale as D7236.

Next comes sheet number D4837 and this is a selection of roundels, tail stripes and unit insignia for Belgian A.F operated Spitfire Mk XIV's, although the instruction sheet says it deals with Mk IX, XIV and XVI. There are six options noted on the instruction sheet and they are:

1. Spitfire Mk XIV, SG34, 8*GE of No. 349 Sqn. Belgian A.F. This machine is Dark Green and Ocean Grey over Medium Sea Grey with a bright blue spinner.

2. Spitfire Mk XIV, SG33, MN*8 of No. 350 Sqn. Belgian A.F. This machine is Dark Green and Ocean Grey over Medium Sea Grey with a red spinner.

3. Spitfire Mk XIV, RN117, UR*E of No. 2 Sqn. Belgian A.F. This machine is Dark Green and Ocean Grey over Medium Sea Grey with a black spinner and a Sky band around the rear fuselage.

4. Spitfire Mk XIV, SG121, IQ*2 of an OTU Sqn. of the Belgian A.F. This machine is in a NATO scheme of Dark Green and Dark Grey over PRU Blue with a yellow spinner.

5. Spitfire Mk XIV, SG127, IQ*2 of an OTU Sqn. of the Belgian A.F. This machine is in a NATO scheme of Dark Green and Dark Grey over Medium Sea Grey with a black spinner and a Sky band around the rear fuselage.

6. Spitfire Mk XIV, SG127, IQ*2 of an OTU Sqn. of the Belgian A.F. This machine is in a NATO scheme of Dark Green and Dark Grey over Medium Sea Grey with a black spinner and a Sky band around the rear fuselage.

7. Spitfire Mk XIV, SG127, IQ*2 of an OTU Sqn. of the Belgian A.F. This machine is Dark Green and Ocean Grey over Medium Sea Grey with a bright blue spinner.

The decal sheet includes national insignia and fin flashes for all six of the options on it, along with all the unique markings for them. No stencilling, other than a set of 'no step' markings for the wings, are included. It is also available in 1/72nd scale as D7237.

The final sheet in this selection is D4838 and this is a large sheet of squadron codes and serial numbers in white and black for the Spitfire in Mk IX, XIV and XVI. Both solid and stencil styles are included as well as being in different thicknesses. The instruction density of each image will mean that you don't have to worry about seepage from the colours underneath. Each of the sheets reviewed above are available in the UK at the following prices:

1/72nd
D7231 £5.00 D7232 £5.00
D7233 £5.00 D7234 £4.00
D7235 £4.00 D7236 £5.00
D7237 £4.00 D7238 £3.50
1/48th
D4832 £4.00 D4833 £4.00
D4834 £4.00 D4835 £4.00
D4836 £4.00 D4837 £4.00
D4838 £4.00 D4839 £4.00

The entire Daco range is imported into the UK by Hannants and the above prices are from that source. Contact them on 01502 51444 for more details.

My thanks to Daco Products for the review samples.
The upper engine cow is dark green (FS 34090) and the rest of the fuselage is plywood covered. The rudder is black and once again the wings and tailplanes are covered in lozenge fabric.

3. Albatros D.Va of Jasta 46 which was captured by the Americans in August 1918. This machine is currently on display in the Smithsonian Institute in the USA. The upper cowling and spinner is dark green (FS 34090) with the rest of the fuselage in plywood. The entire tail is yellow (FS 33655) with diagonal green (FS 34230) stripes and the rudder in white. This machine also has the wings covered in lozenge fabric.

4. Albatros D.V of Jasta 5 operating from Boistencourt. This machine has a light grey (FS 36463) fuselage with a dark green (FS 34090) spinner and forward engine cow. The entire tail and vertical fin is green (FS 34230) overall with the edges done in scarlet. The upper surfaces of both wings are in two tones of green in a disruptive pattern and are light blue underneath.

The tops of each fin. Carried across the fins of this machine are red, blue and white stripes (supplied as a decal) onto which are superimposed a shield with a Cossack on horseback on it.

3. Su-27 of the Ukrainian Air Force based at Zhitomir AFB. This machine is in the same tactical scheme as the previous option although it carries the code ‘Blue 06’ on the nose and the Ukrainian shield emblem on the vertical fins. There are also eagle motifs on the fins and the other national insignia carried on the machine is of the more usual blue and yellow roundel type.

As always with Propagteam the decals themselves are excellent. The registration was spot on and the colour density is excellent. The Russian Knight example is good, although that complex masking and spray job put a lot off it. The Ukrainian A.F. example is excellent and I think it is one I will not be able to resist making for much longer. No stencilling is included in this set but a small additional sheet does give you a full set of decals for the main instrument panel and side consoles in the Su-27 cockpit, which is a nice touch.

Each of the sheets reviewed above retails for just £4.95, which is excellent value for money. If you want to know more about this, or any other product in the Propagteam range contact:

Four Plus UK
29, Westwood Gardens, Hadleigh
Benfleet, Essex. SS7 2SH
Tel/Fax: 01702 559308

My thanks to Four Plus UK for the review samples.
Percival Aircraft Company’s connection with the supply of training aircraft to the Royal Air Force (RAF) dates back to the Proctor of the Second World War, followed by the Prentice in 1948 and the piston Provost five years later, designed under the direction of Leslie G. Frise. Known as the P.56 Provost, it was built around the Alvis Leonides engine but originally flown with an Armstrong Siddeley Cheetah 18 during its evaluation against the Handley Page H.P.R.2, both aircraft having been built to Specification T.16/48.

This was a time when pilots destined for all-jet operations were embarking on their training flying piston-engined types, followed by two-seat jets such as the Vampire. The concept of all-jet training, though desirable, created doubts in official circles. To achieve this aim it became imperative that a purposely designed jet aircraft with forgiving handling characteristics had to be produced, a far cry from the race for speed at all costs in contemporary jet fighters.

Towards the beginning of the ’fifties, Percival Aircraft began such a design as a private venture (P.84), exploring the low-end spectrum of jet flight. The project appeared in model form at the Farnborough Display in 1952. Official interest was shown when the RAF awarded the company with a contract pre-production batch of ten “Jet Provosts T Mk.1” in March 1953 earmarked for service evaluation. The first of these, XD674, flew for the first time on June 26, 1954.

BAC T Mk 5A of No. 1 FTS taring into the flightline at Linton-on-Ouse in 1988 (T Laming)

The first flight of the piston-engined Percival Provost in February 23, 1950 at Luton and an Australian Air Force requirement for an expendable engine with a life of only 10 hours for use in the Jindivik pilotless target aircraft are hardly likely to strike anybody as related. In fact, marry the Percival Provost with the Viper engine and the result is the Jet Provost. Richard J. Carranza examines the last of the breed, the T.5, together with its export version known as the Strikemaster.

XS230, a T.4 conversion which became the prototype T.5, seen during one of its extensive trials with special measuring equipment rigged onto its nose (BAC/BAC)

Courses (1955-57), seven of the original Mk 1s and the first of the T.2s were used. The latter differed mainly in the shortening of the undercarriage from that of the original Provost, and a change of engine, the Viper AV.8 (Mk 102) of 1,750 lb thrust. The courses proved to be a resounding success, prompting the RAF to move on with an order for the T.3 in 1957, the first of which performed its maiden flight on June 22, 1958 at Luton.

In the meantime, Percival had been incorporated into the Hunting Group, becoming Hunting Aircraft in 1958, eventually becoming British Aircraft Corporation (Luton Division) in 1964.

Production of the T.3 totalled 201 examples, followed by 200 T.5 Mk.4s, the first two of which were converted T.3s powered by the Viper AV.11 (Mk 201) of 2,500 lb thrust while the production versions (198) had the Viper 202. Before completion of the T.4 production the design team had already started thinking about a future development of the airframe, especially to introduce a pressure cockpit cabin and an uprated engine. As the operational envelope of RAF’s jet fighter units widened, so did the needs of its training aircraft, and T.4s began to operate at uncomfortable altitudes. A series of versions began to appear combining the pressure cabin, and a restrengthened airframe with the possibility of an uprated engine being also kept in mind. The last two T.4s for the line

All-Jet Training

The Armstrong Siddeley Viper AV.5 turbojet of 1,640 lb st. thrust had originally been developed for the expendable Jindivik but it was found to be relatively easy to change specifications in such a way as to produce a reliable, small engine of excellent characteristics. Some 39% of the piston-engined Provost structure was retained, ensuring that the new aircraft maintained the excellent handling of its predecessor. By late summer of 1955 the world’s first all-jet flying training course began at RAF Haltonington conducted by No. 2 Fighter Training School (FTS). During the first two evaluation

One of a pair of BAC Strikemasters destined for Saudi Arabia makes a technical stopover at Luqa, Malta, in July 1969. Serialled "1111", the aircraft carries construction number 167-123. Note that after delivery to most Islamic countries the red cross on the first-aid compartment was changed to a red moon-crescent, for obvious reasons (C Starace)

SCALE AVIATION MODELLER International 427
were chosen for conversion to the new variant, with XS230 becoming the T.5 prototype.

Considerable export success was enjoyed by the Jet Provost T Mk 3 and T Mk 4, the former designated T Mk 51 with sales to Ceylon (12), Sudan (4), and Kuwait (6) while the latter, designated T Mk 52 obtained sales from Iraq (20), Venezuela (15), Sudan (8) and Yemen (8 – rebuilt ex-RAF). These versions had provision for two machine guns below the engine air intakes and wing hardpoints for a maximum of 360lb (165kg).

An Improved T-Bird

At this stage, facilities at Lytton were closed and BAC transferred all Jet Provost works to Preston. However, most Jet Provost development was carried out at BAC Warton, Lancashire, and next on the drawing board was the BAC 164 which proposed a T Mk 4 with the Viper ASV.20 combined with the new wing, but without the pressurised cockpit. This did not materialise, so work was now concentrated around the new T Mk 5.

First flight of this version was performed on February 28, 1967. The new model featured a redesigned nose to incorporate the pressurised cockpit furnished by Normalair-Garret and Tiltman Langley. Known as the BAC 145, it retained the same engine as the T.4 but incorporated the new strengthened wing which BAC had designed for the Strikemaster, though during the early stages tap tanks were not used (until the arrival of the T.5A), and the underwing pylons were never adopted. An order for 110 examples was placed by the RAF on January 14, 1969 with deliveries starting the following September with the last example being delivered in October 1972. All T.4s were eventually replaced, while T.5s were eventually converted to the T.5A benefiting from an upgrade in avionics and navigation equipment. There has been only one export customer for this version of the Jet Provost in the form of five lightly armed T.5s delivered to the Sudan Air Force, the first example performing its first flight on January 10, 1969.

Attending to such mundane duties as pilot training, the Jet Provost T.5’s career – though successful – would have been quite uneventful were it not for the number of aerobatic teams which it spawned. Names such as the “Linton Blades”, “The Swords”, “The Poachers” and “The Gemini Pair” are but a few of those which became household names, thrilling crowds in the seventies and eighties in the tradition of FTS and, especially, the Central Flying School (CFS). “The Poachers”, for example, was formed in 1969 on four T.5s of the RAF College, Cranwell and performed at air displays in the UK, Germany, Belgium, Holland and Norway together with a memorable Royal Command performance before HM the Queen to commemorate the 50th Anniversary of the College. “The Linton Blades”, which were based at RAF Linton-on-Ouse in Yorkshire, formed on four T.5s (with a fifth as spare) flown by Qualified Flying Instructors (QFI) from No 1 FTS, traces its origins to the “Gin” team of 1963 and performed as far away from UK as Italy.

Adding Bite

The export-oriented version of the T.5 was more than an armed Jet Provost. It was practically a completely redesigned aircraft. XS231, re-engined with a Viper ASV.20 of 3,000lb thrust became the fore-runner of the BAC167 series, named “Strikemaster”. The 35% increase in power and strengthened airframe meant that the new version could carry four times the load nearly three times as far. The training role, which could now also include weapons training, was not sacrificed for the Strikemaster’s attack capabilities. However, operators of this version could benefit from its dual role.

The first armament fit was internal, in the shape of a 7.62mm FN machine gun fitted under each air intake. This can be distinguished by a small bulge underneath the intake followed by a pair of ejector chutes, one for the cartridges and one for the links. 550 rounds per gun are stored in ammunition boxes above the steel-bushed fuselage/main spar attachment point while a gun camera can be fitted to the nose. Underwing stores of up to 3,000lb (1365kg) could be carried under eight hard points, all of which were plumbed to enable them to carry extra fuel tanks if needed, that is apart from the wingtip tanks which were fitted as standard.

The internal wing fuel system consisted of integral tanks in the outer wings and bag tanks in the inner section, similar to the T.5. In the Strikemaster, fuel from the wingtip tanks and any underwing tanks were first transferred to the integral tanks before being used in the standard fuel system feeding the engine.

Side-by-side accommodation under a generous expanse of perspex gave the pilots an extremely good all-round view, though Sudan and Yemen thought this to be too generous and had more than half of it painted over in white! The cockpit was fitted with K.4 Martin-Baker zero-height ejection seats. The avionics/ communications fit could vary according to operator but could include TACAN/ILS, UHF, VHF and ADF together with an LFS 5, FM 2 or SFOM gun sight.

With a full load, the Strikemaster could fly a Hi-Lo-Hi mission within a radius of 220 miles (400km) with a ten-minute reserve.
BAC Jet Provost T.5 Colour Schemes

BAC Jet Provost T.5A, XW320, of No. 1 FTS in a special display scheme (also used on one of its Provost T.4). Note the legend and markings on the nose: Wright Jubilee 1983. Seen view shows design of starboard fin and rudder.

BAC Jet Provost T.5A, XW404/77, No. 1 FTS, Linton-on-Ouse in the final marking style as seen during 1990. As on the example above, the wings have red tips, above and below.

BAC Jet Provost T.5, XW311/69, of No. 1 FTS "Linton Blades" based at Linton-on-Ouse in their 1973 scheme. Note red wingtips.

BAC Jet Provost T.5A, XW370, of the "Swords" Aerobatic Team of No. 3 FTS based at RAF Leeming in 1974.

BAC Jet Provost T.5, XW294/87 of the "Red Pelicans" Aerobatic Display Team of the Central Flying School (CFS). Note the small CFS badge on the air intake.

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BAC Jet Provost T.5/T.55 Strikemaster Colour Schemes

BAC Jet Provost T.5A, XW323/2, of the RAF College, 1981

BAC Jet Provost T.5A, XW352/3, of the "Poachers" aerobatic team from the RAF College Cranwell, in their 1973 scheme. Note small Union Jack on air intake.

Underside colour scheme of Poachers T.5s as carried in 1973.

Early style upper surface scheme this side of the drawing.

Late style upper surface scheme this side of the drawing.

BAC Jet Provost T.5S, 167, of the Sudanese Air Force delivered in July, 1969. Note that the extensive daglo areas under the wings are similar to the ones on top. Rear portion of canopy painted white.

BAC Strikemaster Mk 87, 601, of the Kenya Air Force. Roundels in the normal four wing positions.

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BAC Strikemaster Colour Schemes

BAC Strikemaster Mk 83, K167-110, of the Kuwait Air Force.

BAC Strikemaster Mk 82, 404/4 of the Sultan of Oman Air Force. Note the small red "4" on top of fin; national markings (roundel shown in scrap view) are carried in the four wing positions.

BAC Strikemaster Mk 80A, 1120, of the Royal Saudi Air Force. Note orange upper and lower outter wing panels (but not on ailerons). Fuselage roundel is repeated on the top of both wings, and starboard underside. Port underside carries "RSAF" in black.


BAC Strikemaster Mk 81, 602, one of four examples acquired by the South Yemen People's Republic Air Force in 1969.

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BAC Strikemaster Colour Schemes

BAC Strikemaster Mk 89, T44/244 of the Fuerza Aerea Ecuatoriana, Ala de Combate 23, Escuadrón 2313, based at Eloy Alfaro Manta Air Base

BAC Strikemaster Mk 89, T60/260 of the same unit; note badge on the fuselage is carried on both sides. Scrap view shows upper wing markings; undersides similar

BAC Strikemaster Mk 84, 311/M, of the Singapore Air Force, one of a batch of 16 acquired in 1969

Right: Typical upper surface camouflage pattern for Singapore's Strikemasters. Note, however, that these aircraft do not carry any markings under the wings

Left: Typical upper surface camouflage pattern for New Zealand Strikemasters. The roundel is only carried under the starboard wing

Below: Scrap view shows camouflage pattern for starboard fuselage side

BAC Strikemaster Mk 88, NZ636A/64, of the Royal New Zealand Air Force

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This could be more than doubled if the external load did not exceed 1000 lb (450 kg).

**Export Orders**

The first Strikemaster (XS231 registered G-ATAJ) flew for the first time on October 26, 1967 although a Viper 20-engined variant had already flown two years earlier (the BAC166, March 16, 1965). Foreign customers for the new trainer/strike aircraft were soon attracted by its cost effectiveness and the first order was placed by Saudi Arabia as part of an air defence package which consisted of 34 Lightnings F Mk 52, six two-seat Lightnings T Mk 55s and 25 BAC Strikemasters Mk 80. Contracted in December 1965, the maiden flight of the first Saudi Strikemaster was performed on October 26, 1967. This order was supplemented by a request for ten more examples late in 1972. Saudi Strikemasters were formed into No 9 and 11 Squadrons of the King Faisal Air Academy at Riyadh for both basic flying training and initial weapons training. Of note is the fact that this country's Strikemasters are the only ones to carry two different schemes, one of which is the standard camouflage of two browns on top and azure blue undersides while the other consists of an overall light blue grey.

Second largest user of the Strikemaster was the Sultanate of Muscat and Oman (later simply known as Oman) where the 20 examples delivered over three contracts (first flight November 29, 1988) equipped No 1 Striker Squadron based at Salalah, capital of Dhofar province situated some 600 miles from Seeb. These Mk 82s acquitted themselves excellently in combat against insurgents roaming between Salalah and the South Yemen border. Operating in a hot and dusty environment, the type's superb serviceability brought out the Strikemaster's excellent effectiveness. Its handling qualities and ability to absorb battle damage endorsed the aircraft to its pilots who sometimes had to use a combination of free-fall ordnance, machine gun fire or up to 16 Sura rockets against well-concealed enemy positions. Most operations were flown in pairs, with two aircraft in the air while another pair were prepared for another sortie on the ground. Oman ordered a further batch of four Mk 82As on May 1975, maybe to make up for attrition due to the type's heavy use, as no combat losses - if any - are not known.

South Yemen (later known as South Arabia) received four Mk 81s as from February 15, 1969 while Kuwait ordered 12 MK 83s (in two contracts), and Kenya 6 MK 87s. Singapore received 16 MK 84s which were formed into No 130 (Eagle) Squadron based at SAF Changi. The Royal New Zealand Air Force (RNZAF) ordered ten examples in 1972 which were designated MK 88 and can be considered to be the most complete Strikemasters to have been delivered. Weapons training was the main requirement of the RNZAF with strike capability as second and their success was rewarded by a further order of 6 examples in March 1974. Delivery of the first batch commenced on May 26, 1972 with the type becoming operational with No 14 Squadron in September 1972, replacing its Vampire FB.9s.

**BAC 167 STRIKEMASTER SPECIFICATION**

- **Type:** Two-seat (side-by-side - dual control) jet trainer and light strike aircraft
- **Powerplant:** One Rolls Royce Viper 20F-20 (Mk 535) turbojet of 3,410 lb thrust at sea level.
- **Fuel Capacity:** 1,226 litres in wings and 430 litres in wingtip tanks
- **Dimensions:** Span 36’1” (11.25m); length 33’8.5” (10’27m); height 10’2” (3.10m); wing area 213.7sqft (19.80sqm)
- **Weights:** Empty equipped 6,270lb (2844kg); gross weight (armament training) 10,500lb (4760kg); gross weight (strike) 11,500lb (5213kg)
- **Performance:** Max speed (clean) 473 mph (760kn/h) at 20,000’ (6100m); rate of climb (clean) 5,300ft/min (26m/sec); radius of action with max armament 215 miles (400km); ferry range 1,450 miles (2300km)
- **Armament:** Two 7.62mm (0.30in) FN machine guns in base of engine air intake with 550rpm; eight wing strong points, four of 750lb (340kg) each and four of 200lb (91kg) each, with combined total not exceeding 3,000lb (1360kg) of bombs, rockets, gun pods, external fuel tanks, etc

**Latin Finale**

The only Strikemasters to set foot on the South American continent were those ordered for Ecuador. An initial batch of eight examples (Mk 89A) were obtained in 1972, with a follow-up order for an additional four (Mk 89As) in 1973 and four more ordered on April 2, 1974, bringing the total to 16. These were formed into the Escuadron de Combate 2113 which was set up in the early 'sixties on T-6 Texans (later also equipped with the T-28) with the dual purpose of jet conversion training and light strike and attack. To prepare themselves, the pilots who were from the Escuadron de Combate 2113 on October 20, 1979.

By 1985, Ecuador sought to replace Strikemaster losses by negotiating a deal in a bid to acquire three examples from an embargoed order originally destined for Sudan. These aircraft had already languished for seven years in storage in an unassembled state and were released in mid 1987, arriving in Ecuador in November of the same year. Three new-build machines, the last off the line of Strikemasters, were delivered on October 21, 1988 and are among the "youngest" types still in operation anywhere.

Now well past its heyday, the Strikemaster continues to give excellent service in the role for which it had been designed thirty years after its first flight, though in ever smaller numbers. Though training aircraft are usually a neglected breed by aircraft modellers, this little fellow with the big funny nose has fared slightly better, no doubt thanks to the exotic colour schemes it has carried half way across the globe.

**Richard J. Carnone**
Photo 1
“Galloping Gertie” was one of the DH Dominies flown by No. 1 Delivery Flight based at Croydon in 1942. It was painted in standard colours for a communications aircraft: Dark Green, Dark Earth and Yellow undersides. Note that the lower parts of each nacelle - the part which covered the wheel - was painted Yellow. The serial X7369 was repeated below the lower wings. The photo would seem to date from Summer 1942 when all the markings were being changed. The underside roundel remains Type A, the fin flash extends about 6 inches too far downwards and the roundel on the fuselage side has no outer yellow ring. Port spinner was yellow while the starboard one appears to be gloss black. In the background can be seen some of the old buildings still roofless since the great raid in 1940.

Photo 2
Hawker Nimrod I, K2834, seen here ashore from HMS Courageous some time in 1937. Nimrods were the carrier-borne equivalent of the RAF Furies, though in many ways it was a new design adapted for operations at sea. Obvious variations included the oil cooler below the cowling, which was pale grey anodised aluminium, a deck landing hook towed beneath the rear fuselage and the long exhaust pipes. No. 800 Sqn carried white side numbers across the pale blue band of Courageous. The badge on the fin was in the normal RN style with gold trident and crossed swords on a blue ground. Spinner and wheel centres were dark blue and according to my references the upper wing was marked between the roundels with a pair of narrow pale blue ‘tram lines’ between which was a row of nine blue diamonds. Serials appeared below the wings. The headrest was dark blue. Another squadron Nimrod S1582/102 had a dark blue fin. The Royal Navy tended to line up its equipment in review order; no doubt all the propellers were in a horizontal position. Apart from the anodised cowlings the aircraft was silver-doped overall.

Photo 3
Photographed in June 1972 at Colerne was Meteor NF14, WS838. It had been a familiar sight over Wiltshire as it had been the Boscombe Down chase-plane until it was superseded by the famous red and white Javelin. WS838 was quite striking in overall Trainer Yellow relieved only by the matt Black dome where the NF radar had been mounted. Type D roundels and the black serials were all standard. (This aircraft is now preserved at the Midland Air Museum.)

Photo 4a
News of the appearance of Classic Decals sheet number 48/001 reported on page 292 of issue No. 5 (May) has prompted me to include three photos from my Legion Condor collection. This represents a view of Hauptmann Harro Harder’s Heinkel He 51 that is invaluable for modellers of this type. So far from being RLM 61 and 63 on
fun trying to reproduce the variety of tone values. Note the white Hackenkreuz on the centre section and the skull and crosses above the spinner. Wing tips were white.  

**Photo 4b and 4c**

These photos were taken by the late Ltn. Kurt Strümpell; they came into my hands via his brother, General Henning Strümpell. I believe Kurt was killed while flying an Aufklärungs Heinkel He 70. No doubt he is one of the pilots sitting by their tent, Adolf Galland being on the left. The He 51 in the background was probably Galland’s "78" which is shown in photo 4c, displaying its cross patée on the black disc. Although the cross was white, the surrounding ring was either pale blue or yellow. The belly tank was natural metal. Lower wings had white tips and it is possible that the upper wing may have been coloured like that of 2-64.

**Photo 5**

Also seen at Colerne in June 1972 was the Meteor fitted with the experimental prone pilot position. The airframe was a standard F.8, WK935, with armament and other unnecessary equipment removed and a new section grafted on over the nosewheel compartment. I cannot recall if the normal fighter belly tank was fitted, but the entire aircraft was natural metal with all the standard markings. Note the strange black paint line along the frame of the prone pilot’s hood. Today this aircraft can be seen at The Aerospace Museum, Cosford.

**Correction**

I am happy to correct the lapse of my 50 year old memory regarding the colour of Westland Widgeon G-AAGH (See Vol 3 Iss 2 Page 93). It was blue and silver. I can only imagine I was confusing the aircraft with G-EBRO, which was red and silver.
One mistake which is rather noticeable is the style of the serials; these have been printed in the post-war RAF style and are too thin and rounded. This might be OK for DG202/G as Tamiya have modelled this machine as it is at RAF Cosford, or have they?

**Confusion?**

So far this has been the good news, now for the bad news. I am not sure what Tamiya have actually boxed, my references show that the F9/40 and the Meteor F.1 aircraft were not fitted with airbrakes, they were only fitted from the Meteor F.3 onwards. What have you got above and below the wings of the kit? Yes airbrakes. You have the option of fitting them open or closed, which will look very nice on the F.3 but is not a lot of use on the F.1. It occurred to me that perhaps Tamiya have based their kit on the preserved airframe at RAF Cosford as the colour scheme given in the kit shows DG202/G in a Dark Earth/Dark Green/Yellow prototype scheme, which is the scheme '202' carries today.

Unfortunately '202' originally carried a scheme of Ocean Grey/Dark Green/Yellow. I am awaiting confirmation at this time as to whether '202' has airbrakes (See Editor's Note). If it does have them fitted this would point to a new (or modified) set of wings having been fitted at some time in its career. DG202 when it was built had a different style of canopy to that supplied in the kit, so if the Cosford machine has got airbrakes that is the only aircraft you can build from this kit, 'cos an F.1 it isn't.

**Fit**

Now for some even worse news especially as I think most modellers have been generally pleased with the fit of Tamiya kits over the past few years. The Meteor is certainly not one of the best, we shall now take a walk through the various stages of the instruction sheet.

**1 Fuselage assembly**

The wing to fuselage fillets are fitted to the fuselage halves at this point, no problems.

**2 Wing/Fuselage Attachment**

This includes fitting the ballast weight to the lower wing. This is then fitted to the fuselage. Get the filler out. Next fit the upper wing halves to the lower wing/fuselage. More filler. This is mainly because Tamiya have included the wing/fuselage fillets as separate parts and the join is not good. You are told to fit the engine cowl fronts (B10/B11) at this stage. I think it is worth holding on to these until stage six.

**3 Cockpit**

The seat and control column are fitted to a tub, the undersurface of which forms part of the nosewheel bay roof. Parts added to the tub are; the instrument panel, seat, gun sight and back armour. If you are a modeller who enjoys scratch building all that cockpit detail you are going to love this kit, because you are going to have to build in all the cockpit detail. There is absolutely nothing on the cockpit walls except the join lines from the next stage of the instructions and I think the shape of the back armour could be wrong. Oh yes, you get a seated pilot figure. I think it was possibly based on Quasimodo, during a severe bout of constipation though!

**4 Attaching cockpit**

The cockpit tub drops neatly into place through the top of the completed fuselage. Then the cockpit top decking is added, hence the join lines from stage three.

**5 Engine assembly**

You get two complete engines with exhaust nozzles, these look quite nice.
6 Attaching Engines
This is just what it says. You might want to dry fit the engine access panels, of
which you get two in grey and two clear (A2/A13 and D5/D6) and then fit the
cowl front (B10/B11). I attached the cowl fronts as per instructions and then found
the access panels were a very tight fit. More filler needed on cowl front to wing
join.

7 Landing Gear Doors
No problems.

8 Landing Gear
No problems. The undercarriage legs are all moulded in two halves, when they are
glued together you can pop the wheels in to place.

8 wing of the F.9/40 and the Meteor F.1
which runs from the rear of the undercarriage bay almost to the flap hinge line. This is a larger elongated tear drop shape rather than the squared off much smaller fairing as moulded on the kit. Where the fairing should be for an F.1 there's, yes, you've guessed it, an air brake.

I filled the airbrakes, ignored the underwing fairing and am pretending I have an F.1.
Nice try but no cigar.

Phil J. Evans

Editors note: Conversations with the staff at The Aerospace Museum, Cosford
confirmed that DG202/G, which is displayed there, does have air brakes
fitted. It may well be that the airframe was modified during its life to include
these items, or that it has been fitted with an F.111 wing sometime in its life.

Most reference sources I have checked mention airbrakes on all versions from the
prototypes onwards. This does not prove that the prototypes, including
DG202/G, had the brakes or that the initial F.1’s did either. There is a lot of
research and commentary flying about at present on this subject and we hope that
new research will shed some light onto this perplexing question.

If you know the answer, and can prove it, why not let us all know by dropping a
line to the editor.
East Midlands Model Show

Held on Sunday the 20th April 1997 at Hinkley Leisure Centre, this was the first time I had attended this show. I found the venue itself no problem as it was very well signposted from the major roads. The event itself was in a large leisure building just on the outskirts of the centre of Hinkley. It was a big and roomy venue and the organisers had laid the tables out with ample walkways and blocks of chairs at strategic positions, so the visitors had somewhere to sit down for a while. Food was available, as was an upper gallery and eating area. All in all the venue and organisation was excellent and the weather was kind to us all.

There was a great number of people at the event and thanks to my able assistant I was able to leave the stand on numerous occasions and wander around to have a look at what was on display. Things that caught my attention are reproduced here, with the exception of a few which are not suitable; namely the superb leaping Salmon made in Milliput and cast in a resin ‘splash’ and the truly amazing flat figure painting which was on display on a couple of stands. All in all the event was excellent, it had a good venue, was well organised and had a very good ‘feel’ to it. I enjoyed the day greatly and did not spend too much money (makes a change!) with over 360 entries in the competition and over 2,000 people through the door this is certainly ‘the’ one day event in the modelling calendar. Add this one to your event diary for next year, you will not be disappointed.

EMMS 97 Competition results

Note that we have only included the aviation related winners here, as these are what you are interested in. Our congratulations go to all the winners, however, the quality and quantity of entries was very impressive indeed.

A Aircraft, pre 1945
Up to and inc. 1/72nd scale
Winner Fairey Firefly E1 - G.King
2nd Fairey Fulmar - Mr Meikle
3rd Sopwith Triplane - R. Hartill

B Aircraft, pre 1945
Over 1/72nd scale
Winner Albacros D.V - P.Lister
2nd Douglas Havoc - Mr Lockhart
3rd N.A. P-51D Mustang - A.Reeves

C Aircraft, post 1945
Up to and inc. 1/72nd scale
Winner Jaguar GR.1 - J.Wilkes
2nd McDD F-4C - M.Nutting
3rd Grumman Tracker - Mr Hewlett

D Aircraft, post 1945
Over 1/72nd scale
Winner McDD RF-4E - J. Wilkes
2nd F-16 Wildcat - C. Gardner
3rd Skyraider - Mr Pettymen

E Aircraft, prototype unflown
Any scale
Winner Caut Z600 - Mr Wheeler
2nd Me 109 - Mr Meikle
3rd Boeing 747 FB - Mr Wheeler

F Junior Aircraft
Winner Buccaneer - Ashley Keates
2nd Sopwith Camel - Anna Salt
3rd Hellcat - Ashley Keates
Oh silly, silly person! This superb fire bomber was based on a Boeing 747 airliner and was placed 3rd in the prototype section of the competition.

A superb Fairey Firefly based on the old PP Aerokit model I assume.

On the Israeli S.I.G was this nicely built and weathered 1/72nd scale Dassault Ouragon.

Built from the amazingly detailed and equally amazingly expensive Collect-Aire resin kit was this 1/48th scale Vought F6U PIRATE. It is very impressive but at probably over $150.00 it should be.

Also on the Israeli S.I.G stand was this dramatically posed 1/48th scale Mosquito.

Entered into the competition, but not placed, was this well made AV-8 built from the Monogram kit.

Nice to see AMT Tigercats coming out onto the club stands. This F7F-3 and F7F-3N were built using the AeroMaster decals and Beeleys resin conversion respectively.

Nice to see a Monogram Catalina built up into the pre-war chrome-yellow winged version.

A tiny little 1/144th scale P-51D Mustang took my eye in the competition area. It was not placed but the builder has my admiration.

Built by a dedicated tank modeller, this lovely Tigercat in the NATC overall yellow scheme certainly caught my eye. It is the new AMT kit in 1/48th scale.

A very silly 'what if', this Lancaster GR. XIII features some excellent dazzle camouflage.

A well posed little set piece around this Dauntless was not placed in the competition.

Also on the USAF S.I.G stand was this T-33. Once again finish and the level of detail was very good.

Second place in the over 1/72nd scale pre 1945 class was this Havoc Turbinlite by Mr Lockhart. It is the AMT kit with the MDC conversion set.

East Midlands Model Show
# Italian Update

It is that time of year once again (See Vol 2 Iss 4 Page 238)! Thanks to the kind help of the Milan branch of the IPMS Italy we can bring you a complete listing of projected and contemplated kits due in 1997/8 of Italian manufactured aircraft, plus a little insight into what publications are due in the excellent Ali D'Italia range.

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History
By the time production ceased in 1981, 5195 Phantoms had been constructed in 17 major variants. These served not only as the backbone of the USAF, but also with a dozen overseas airforces including Germany, Israel, Japan and of course the UK. The reason that every F-4 has a tail hook was that the aircraft initially started life as a design for a Navy fighter/interceptor. The automatic folding wingtip mechanism for carrier based operation was only removed as part of a weight saving improvement around the introduction of the F-4E.

The aircraft first flew in 1958 and is one of the longest serving military aircraft in the world. It gained a substantial collection of performance records in 1960 and 1961 and according to some has become the standard against which every other fighter is measured. This aircraft can not only fly as a fighter escort to bombers, provide air defence, ground attack and photo reconnaissance roles, but, with a crew of only two, carry more bomb payload than a B-17.

One of the reconnaissance variants, the RF-4E, was built in 1970. This was essentially an F-4E with all armament and Sparrow bays removed and an RF-4C nose spliced on. West Germany was one of the main airforces that used this variant, the USAF and USMC operating RF-4C's and RF-4B's respectively. This aircraft housed not only radar and infra-red detection equipment; but also an array of cameras in the nose capable of both high and low altitude photography. Some aircraft had the capability of carrying out onboard developing of the film to save time although this reduced the carrying capacity. Photoflash ejectors were fitted in the rear fuselage capable of producing some 260 million candle power.

The Kit: First Impressions
The original kit that Revell released many years ago was sold as an RF-4E, although it was only the decal sheet that made it thus. The leading edge flaps, slotted stabilisers, teardrop antenna at the top of the fin and the lack of any cameras have been correctly addressed on the new model. The old model however did have complete internal ducting in the engine intakes which is lacking on the new model, although this is mostly hidden from view.

The new kit comprises 173 parts moulded on eight separate runners in black-green plastic with one runner in well-moulded clear plastic for the canopies, etc. The dark plastic is OK for the kit camouflage scheme but is inappropriate for some alternative schemes that might be considered. This kit was moulded with other variants in mind as extra parts are provided which apply to both earlier and later variants and also the fuselage can have different noses attached.

Subsequent to the release of the RF-4E, Revell have now introduced a USMC RF-4C and a German airforce F-4F. The only commercial decal sheet set available for a Phantom in this scale is for the RF-4C made by Xtradecal (X003-32).

The major parts were assembled using masking tape to establish the fit of parts and the shape/size of the model. It's at this point that the sheer size of this kit becomes apparent. Generally the fit of parts was excellent, although the locating pegs for the port upper wing had to be cut off as they did not align properly with the holes on the lower wing. The main fuselage upper halves when assembled were narrower than the wing assembly and would therefore need to be held apart on assembly to ensure a snug fit.

Cockpit Interior
The basic shape of the cockpit is correct although the forward and rear positions are 3mm and 2mm too low respectively and should line up with the panel lines on the outside of the aircraft. The correction was achieved by using a razor saw to separate and reposition the floors.

The forward end of the rear cockpit needed extending as a result of raising the floor, but this was necessary as the rear cockpit was about 3mm too short. The lower half of the rear instrument panel also had to be cut away from the top and repositioned further forward. The centre console, housing the radar, was incorrect and was replaced with one made from plasticard. Wire was used to represent the removal handles on either side.

The ejector seats were discarded in
favour of a pair moulded in resin by Paragon. The seat structure was painted black, drybrushed with silver and the cushions painted using several shades of green to achieve a worn, used look to the seat. The only additions necessary were the ejection handle 'between the knees' from copper wire and the 'thief' of the kit handles for the top. The top handles were painted using pale yellow to give that faded look.

You have produced a phototched set which includes parts for the cockpit providing good accurate definition of the panel layouts and canopy rails, although relatively speaking they were still only two-dimensional. Before switches and knobs could be added to the left hand side console of the forward cockpit the panels had to be rearranged as they were not in the correct positions. This particularly applied to the throttle panel which was 3mm too far forwards relative to the ejector seat. The etched part was cut into several pieces and superglued to a piece of 10 thou plasticard. The etched canopy guide rails were good although the top edges of the fuselage had to be padded out to provide sufficient support. The sides of the cockpit, the kit vents were simply deepened with the aid of a scalpel. The etched parts require the kit vents to be recessed to a depth of 0.5mm, which would have required a lot of effort for negligible improvement. The joint between the external duct and the fuselage needed to be filled and sanded as it 'dimpled in' around the joint.

**Camera Bay**

This kit provides parts for one KS-87 camera for the forward station (No 1), two for the low altitude station (No 2) and one for the high altitude camera station (No 3). The No 2 station should house three KS-87's although the downward facing camera would only be visible with the bay doors in the open position. The No 3 station should house a KA-55A panoramic camera (or another KS-87) on a stabilised platform although again, this detail would not be visible with the doors closed.

A new camera was made for the No 3 station using the Detail & Scale (Part 1) book and the three cameras used for the No 2 station as mentioned above. All the cameras were adequate, although

the cockpit were built up using plasticard and pieces of the phototched circuit breaker panels were added with the aid of detail photographs in the Verlinden and Detail & Scale books.

**Intakes**

The engine on the Phantom is set at an angle, although the kit fits the internal parts parallel to the centre line. This was resolved by positioning the top edge of the baffle plate aft of the upper lugs instead of between them. The turbine blades were painted with Humbrol 'Metal Coke' polishing only the forward edge. The guide vanes were painted white and the "spinner" chrome silver.

The internal intake duct was fabricated from an offcut of 60mm sink waste pipe. The advantage of this material over plasticard is that when heated it stays soft for longer and when cool it is not brittle. The handle of a wooden spoon was required to manipulate the plastic pipe to the shape required as it was too hot to do so by hand. The moulded pipe was secured with Superglue and model filler used to smooth the joint at the front end. The marks made by the mould ejector pins. The phototched set provides replacement probes to go inside the intake ducts. These probes were too thin, although they were used as a pattern to scratchbuild new ones from two pieces of 10 thou plasticard and some 0.75mm dia. rod with a hole drilled in the end.

Although the phototched set provides replacement bleed air vents (either side of the cockpit), the kit vents were simply deepened with the aid of a scalpel. The etched parts require the kit vents to be recessed to a depth of 0.5mm, which would have required a lot of effort for negligible improvement. The joint between the external duct and the fuselage needed to be filled and sanded as it 'dimpled in' around the joint.

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This kit provides parts for one KS-87 camera for the forward station (No 1), two for the low altitude station (No 2) and one for the high altitude camera station (No 3). The No 2 station should house three KS-87's although the downward facing camera would only be visible with the bay doors in the open position. The No 3 station should house a KA-55A panoramic camera (or another KS-87) on a stabilised platform although again, this detail would not be visible with the doors closed.

A new camera was made for the No 3 station using the Detail & Scale (Part 1) book and the three cameras used for the No 2 station as mentioned above. All the cameras were adequate, although

improvements were made by profiling a lens using a small, scalpel, the addition of an aluminium rim to the lens and also cabling. The interior of the bay was painted black and the cameras painted gunmetal and night black. The lenses were painted glossy sea blue with white 'lettering' on matt black around the edge. The instruction sheet shows the angle between the side window cameras as being 48 degrees. This is clearly incorrect as the cameras would almost be pointing downwards (the technical data for the aircraft establishes this angle as being nearly 105 degrees).

The camera bay doors were carefully removed with the aid of a razor saw from each fuselage half and the two pieces glued together before separating the forward and rear doors. The edges of the doors were thinned and framing added inside the camera bay. The No 1 station camera mounts needed modifying due to the way the camera pivots as the forward bay door is opened. The plastic that was behind the angular lens on the No 2 station bay door was removed with the aid of a small drill and scalpel, being careful not to remove too much material at the sides. A mounting was made for the camera at this position and brass rod used for the support wires at the sides. The bay door locking handles were also added using aluminium sheet and plasticard.

**Underwing Stores**

The stores provided with this kit are in keeping with the reconnaissance versions of the F-4, including the blanking off of the fuselage Sparrow bays. These were all well detailed with decals for stencilling.

The kit caters for both types of pylons and centre tank used by different variants, once again illustrating that thought had gone into the design of the moulds. The moulded mount for the AN/ALE-119 ECM pod positioned it 15mm too far forward on the pylons. The forward stabiliser pad (on the pod) became the rear one and the rearmost one had to be carved off and repositioned. The stabiliser clamps were filed at an angle to match the pads mentioned above.

There are two types of chaff dispenser fitted to this aircraft. The AN/ALE-43 pod is mounted on the port side inboard pylon and contains drums of chaff that could be cut into set lengths. The only improvements to this item were the opening of the distribution holes at the rear and the reduction of the hole at the front into a cupped inlet. The ALE-40 chaff dispenser is designed to be mounted on the side of the pylons thus allowing other stores to be carried at the same time. These were improved by opening up the rear end with a small drill and using a scalpel to square off the holes. Stage 51 illustrates the high-g version centre tank with a stabiliser at the aft end.

This was retrospectively fitted to a large number of Phantoms in recent years whereas stages 56 and 57 illustrate the early type tank. Although it was not possible to prove which type was fitted to this particular a/c in either the 1988 or 1991 versions of this kit, it was more likely to be the high-g type.

When fitting the underwing stores to the model it is important to ensure that they will be perpendicular to the ground with the undercarriage fitted. The sway braces (Pt. No's. 134-137, 155 & 156) are critical to this alignment and must be checked before the glue hardens by prefitting them to the pylon.

**Tyres & Undercarriage Bays**

The kit included two sets of tyres that were identical apart from the flattened edge on one set for that authentic "weight on wheels" look although the
tyre tread still had to be cut with a razor saw. The main bays were reasonably well detailed with all the stays and jacks included and the nose bay only needed a small amount of framing and pipework adding to improve it.

The upper surface of the wings had the bulged wing roots for aircraft fitted with the wider tyres. The main bays however, were too shallow to accept the wheels supplied in the kit. To resolve this the top surface of the bay had to be cut away and the edges built up with plasticard to meet the upper wing skin. Strip plasticard was used for strengthening 'brackets' and plating, and piping was made from fuse wire and stretched sprue.

Also located on the lower wing half are the auxiliary air intake doors that are located either side of the centre external fuel tank. These were cut out and replaced with new plasticard ones in the open position. These doors provide extra air at slow speeds and are usually open when the aircraft is on the ground. These had to be cut out and replaced as they are only panel lines on this kit. I used engine parts realism, although the "leading edges" and ends of the flying controls needed packing with plasticard and filler. The wing tip dihedral of 8º on the instruction sheet is incorrect as it should be 12º. The moulded parts of the kit however ensured that the correct angle was achieved.

The joint between the all flying elevators and the fuselage needed adjusting, as it is only the centre portion of the elevator that connects with the fuselage. A piece of paper was cut to the 23º anhedral angle to act as a template. Cardboard formers were made to support the elevators whilst the glue set. A similar former was used to support the drooping ailerons.

The cockpit canopies were enhanced using the Xtrarparts photoetched set, although some of the etched parts were replaced with plasticard copies. Compass cards were added and a standby compass added to the forward windscreen. New hinges were made from brass for strength and accuracy as the canopy hinges upwards and rearwards at the same time. The Detail & Scale plans were used to establish the opening height of each canopy; the rear one being slightly higher than the forward one.

The navigation lights were scratchbuilt using offcuts of red and green disposable cigarette lighters sanded to shape and polished using metal polish. The probes on the nose cone and fin leading edge were replaced with brass rod and tube for extra strength.

Painting

The tiger stripe decal for the fin was too large to be practically used and it would have obscured the fin detail. The whole fin was 'primed' in white and then painted yellow. The decal was traced onto the fin and masked using liquid masking fluid before airbrushing with black paint.

The black and two-tone green colour scheme of both options was retrospectively applied to German Air Force Phantoms replacing the light grey undersurfaces and dark green and dark grey upper surfaces. At first this appeared to be straightforward, although, there were several problems. The main one being that although the Humbrol 116 & 117 green's perfectly matched the FS colours of the aircraft, they were not even a close match to pictures and photos of in-service aircraft. Humbrol Black-Grey, Humbrol Olive Drab and Revell Reed Green were found to be the closest match numbers of the decals on the decal sheet. The red writing in German on the sheet, groups these numbers to areas of the aircraft, e.g. Rechte Rumpfseite = Right Fuselage and Unterflügelspitze = Pylons (under wing stores).

Even with this clarification the instruction sheet is mind bowing to say the least. I photocopied the instruction sheet pages relating to decal application up to A3 size and used a highlight pen to mark off each one as it was applied. Starting with the larger decals first; Johnson's Klear (floor polish) was used to position the decals as this helped to hide the backing film and aid adhesion. The instruction sheet identifies a few decals incorrectly and in some cases not at all, which became apparent as the decals applied were marked off with the highlight pen. The wing walk line decals were incorrect as they were both for the left hand wing. Fortunately the decals for the fuselage walk lines were too long and these were used to solve the problem.

The only major moulding fault was at the rear end.

The sheer size of the task ahead becomes apparent...
The forward and rear positions are 3mm and 2mm too low respectively.

The top grab handle was obtained from the kit and the lower made from wire.

36mm sink waste pipe was used for the intake ducts.

The inboard face of items 46 and 51 had to be filled with plasticard.

The camera bay was opened and detailed.

The edges of the doors were thinned down and door locks added.

When fitting the underwing stores to the model it is important to ensure that they will be perpendicular to the ground.

The cameras were improved by profiling the lenses and adding cables.

The probe was scratchbuilt using the photoetched part as a template.

The stabiliser clamps were painted gold to represent cadmium plate.

The sides of the cockpit were built up using plasticard and pieces of the photoetched circuit breaker panels.

Forward cockpit layout

Rear cockpit layout

Filler was required on both sides for a more aerodynamic shape.
The high-g centre tank was fitted to this aircraft and is the same as used on the F-15.

Main undercarriage bay before painting.

Manufacturers' part/serial number plates were painted on.

The auxiliary air intake doors were cut out and replaced with plasticard.

The etched parts comprised most of the canopy enhancement.

New hinges were made from brass for extra strength.

The etched arrestor hook was built up with plasticard.

Piping and frames had to be added using plasticard, wire and rod.

The photoflash bays had to be scratchbuilt.

The navigation lights were scratchbuilt using offcuts of red and green disposable cigarette lighters.

The airbrake jacks were extended to lower them further.

Dropping ailerons, rudder moved for added realism.
36. Black shoe polish was used to stain the area around the exhausts.

The tigerstripe was airbrushed onto the fin instead of using the decal.

Colour matching between the model (below) and real aircraft (above) was very difficult.

Paper templates and double sided tape were used to recreate this black-grey and two greens colour scheme.

The diverter vanes (Item 70) were thinned with a scalpel and the edge of the inner "cup" shaped.

The rear of the aft instrument panel was added from plasticard and wire.

At 60cm x 36.5cm it is difficult to find somewhere to keep this model.

The 300 decals were applied with Johnsons Klear floor polish.
Quite a few of the stencil numbers also needed the carrier film splitting where they had to be applied in separate positions. The Tigermeet variant does not require stencilling on the fin, because the tiger stripe would have been painted over the existing markings for the duration of the meet and then washed off afterwards.

Once all decals had been applied the 'bare metal' surfaces were masked and the model painted with satin varnish. This not only sealed the decals in place but also brought the finish of the Humbrol and Revell paints to the same level.

**Conclusions**

Revell's original RF-4E was very toy orientated with many moving parts. The new kit has been updated and is now technically correct. This model, however, is definitely not for the beginner. It is an imposing kit not just from the number of parts but also the sheer size of the finished model and the ordnance that it carries.

- The exterior finish of this kit is of the highest standard and the attention to panel detailing, especially around the jet efflux area is superb. Although the cockpit is quite comprehensive it lacks detail on the fuselage sides, especially for a model of this scale.

The phototetched set by Xtraparts cost £12.95 and comprised 36 parts. I found the benefit of this set to be limited to the cockpit and canopies. The other parts were discarded because they were not applicable to the RF-4E or because they were not suitable. Although I used the side and instrument panels in the cockpit, they still lacked the 3-dimensional capabilities of resin or moulded plastic, especially in respect of circuit breakers and switches, etc.

My thanks to Neil Burkill of Paragon Designs for providing the ejector seats which at £12.95 were excellent value for money as they saved many hours that would have been spent scratchbuilding or modifying the existing seats. They were extremely well made down to the harnesses laying in different positions on each seat.

My thanks to Revell for providing this kit for review purposes and at a cost of £29.50 it provided many hours of both rewarding and sometimes frustrating modelling. This was probably the most challenging kit I have attempted for a long time and it took far longer to complete than I expected. The major difficulties were in the cockpit detailing and the finding of suitable paints to match the photos of the real aircraft.

**Andy Seagar**

**Reference Documents**
- F-4E Phantom II (Lock on No. 8) Verlinden
- F-4 Phantom II (Part 1) F-4C, F-4D, RF-4C Detail & Scale
- F-4E Phantom II (Part 2) F-4E, F-4G Detail & Scale
- Phantom - Spirit in the Skies: World Air Power Journal
- Modern Fighting Aircraft F-4: Aviation Fact File
- F-4 Phantom: Frank B. Mormillo
"BASIC CAMOUFLAGE. The basic camouflage scheme in permanent camouflage materials for Army Air Forces aircraft is Dark Olive Drab, shade No. 41, for surfaces viewed from above and extending down sides of fuselage; Medium Green, shade No. 42, in irregular splotches along all edges on the upper side of the wing and the horizontal outline of the tail assembly; also, along all edges of both sides of the vertical outline of the tail assembly, extending inward from the edges for various distances up to 20 percent of the total width of the wing or tail assembly.

"Neutral Grey, shade No. 43, will be used for surfaces viewed from below.

"Masking will not be employed to separate ANY COLORS. Junction lines will be blended by over-spraying.""

This quote is taken from the June 1943 re-issue of U.S. Army Air Forces Technical Order No. 07-1-1 concerning aircraft camouflage, markings and insignia. This subsequently remained almost totally overlooked. For years almost entirely overlooked by those describing camouflage and markings, overlooked discussed very little over the years, and hardly ever studied and recorded in its variety of forms. References to it are sparse, and it can be quite difficult to discern in many photographs. There was no fixed design such as existed for British and Commonwealth disruptive camouflage... so there was no pattern book that we might reproduce today and say "There you are, that is what it was like".

In many of the older books and journals of us once turned to for sole guidance and inspiration, the splotching could even be misinterpreted and passed off as just patchy repainting, nothing more, as though it never existed anyway.

Another frequent error of illustrators used to be that of showing the green splotching only on vertical tail surfaces. The reason for this is easy enough to understand: in a host of wartime photos it is only on vertical tail surfaces that we can plainly see the splotching. Consequently many of us once believed that this was indeed the situation - a case of if you cannot see it then it is not there.

Certainly one sometimes needs to search, and search carefully with a discerning eye, to spot those splotches in a lot of aircraft photos. And it is also true that they are not always there to see at all...more of this shortly. When the splotches are there, you can rely on two things: they will have been applied to all the surfaces specified in that Technical Order quoted above (except possibly in the case of something like a wing having been replaced or resprayed) and they will have a distinctive shape or style.

Rarely if ever, can one find splotches that were applied in a vague, puffy, formless manner, and my advice is at all costs avoid this effect when painting a model.

Bear in mind the manner of application of those splotches: some were added freehand by someone with a spray gun, up a ladder or scaffolding, applying the colour with sweeping motions of the arm, quickly, and consequently fairly lightly, over the Olive Drab base.

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8-25. As with Marauders, early Mitchells flew in the earlier basic camouflage scheme which did not include splutching. However, splutching can be discerned in photos of numbers of D and G models operating with units in the Pacific theatres

swipes, lumps, lobes, tails or flames, ripples, fingers or spiders, each either of varying sizes or consistent in colour in which the aircraft had been delivered. In other cases the splutching was more thoroughly applied in paint shop conditions, either firstly chalked out or even mats used, to provide long runs of similarly shaped splutches, and those green areas then filled in much more solidly and consistently.

Although the rule was for colour boundaries not to be given a hard edge by the use of crisply masking them off (the instructions include a diagram of hands applying masking tape to show what should not be done) it is nonetheless important for the addition of splutches to a model's camouflage to taken into account scale appearance. In the absence of convenient pattern books, and the rarity of photos which show sufficiently clearly the whole planform of an aircraft with splotted camouflage, we must take our cues from whatever can be seen. When doing a picture search remember that, as a general rule, you may safely assume that the style and application of splutches spied on one part of an aircraft will be a guide to the form of the splutches that cannot be seen over the rest of the aircraft. So proceed to plan the painting of your model accordingly.

Splutches' forms may be categorised: August 1940 USAAC Board recommendations for camouflage were for the use of Dark Olive Drab 31, Neutral Gray 32, Black 33, and Sea Green 28. These were water based paints which gave a matt finish and a useful service life of around a month. Basically, the scheme which had by then been settled upon featured a basic camouflage consisting simply of Olive Drab upper camouflage with either grey or black undersides for day or night operations respectively. But one of the recommendations was for blotches of Sea Green 28 to be used to break up the edge contours of the otherwise all Olive Drab upper surfaces.

The April 1941 issue of T.O. 07-1-1 set the scene size, and so on. All were distinctive in their own way.

Background
The first version of Technical Order 07-1-1 was issued in January 1933. At that time it was titled 'Dopes, Paints and Related Material: General - Aircraft Markings, Insignia and Camouflage'. It set out 'ground camouflage' (i.e. for upper surfaces) which was to consist of irregular

for the war years. It directed that 'The camouflaging of airplanes... will be accomplished as soon as practicable...'. This camouflaging was to be in accordance with Specification No. 24114, which stipulated '...all upper surfaces except for insignia shall be coated with Dark Olive Drab, Shade 41 of Bulletin 41 (which) shall extend downward on the sides of the fuse-

The undersides were to be ‘...Neutral Gray, Shade 43 of Bulletin 41...’ ‘Masks shall not be employed to separate the two shades.’ There you have the basic scheme in which the USAAF camouflaged its aircraft when it entered the war. And splutching had disappeared for a while.

Regarding the use of Medium Green 42, that issue of T.O. 07-1-1 stated (as did the subsequent ones) ‘...to meet requirements where airplanes are operated over a terrain which is pre-

A-20. Unlike Marauders and, to some extent Mitchells, one can readily find plenty of visual evidence of splotted camouflage on Bombos/Howard. Once the basic camouflage scheme had come to include Medium Green splutching, thousands of Douglas A-20s (and C-47s) seem all to have been delivered, finished accordingly, and, with a relatively small range of variations. Note the symmetry apparent here: five nodes along each leading edge, with a sixth at each wingtip, and so on

dominantly green, the use of one coat of Medium Green, Shade No. 42 (of Bulletin No. 41), is authorized to supplement the top surface camouflage finish’. As regards the history of green splutches on Olive Drab camouflage, this is a rather vague statement: some commentators have interpreted it as meaning simply that a final general coat of Medium Green 42 might be added over all upper surfaces for operations in a particular theatre, others believing it meant green splutches. But perhaps its real intention was to accommodate both? Anyway, early camouflaged USAAC/USAAF aircraft were delivered in the basic scheme of straight Dark Olive Drab and Neutral Grey so familiar to all of us, and any variations to this in the first months of 1942 belong to another story.

A-20. One of the reasons we can find plenty of indications of splutching is that when basic scheme reverted to bare metal finish, A-20/Boston/Howard production camouflage continued to be applied. Models G, H and J all appear to have been delivered in June 1943 basic scheme which called for the splutching. The later style changed to one like this, but the symmetry remained.

Sometimes the ailerons carried no splutching.

c-47. Although it is possible to find other designs, it must be said that this is about as close as one gets to a pattern book splutching design. There must have been thousands of Skytrains/Dakotas all wearing essentially this design: that number of lobes, symmetrically disposed in the manner illustrated here, with only degrees of variation.

SCALE AVIATION MODELLER International
However, the idea of adding Medium Green 42 splottes to assist in breaking up the distinctive outline of an aircraft and fitting its camouflage better for operations from and over verdant countryside, had definitely returned by the second half of 1942 into 1943. USAAF B-17Es arriving in England were subjected to a program of adding splottes during the period December '42 to Mar '43, affecting in particular the aircraft of the 91st, 303rd, 305th and 306th Bomb Groups. The distinctive appearance of these hasty, squiggly, green splottes that sometimes almost verged on motting, would be familiar to many readers through the pages of various books they would have on their shelves.

Numbers of B-24s were also given the splotching at depots, although this seems to have petered out by early 1943. However, at the same time there were many aircraft, of various types, that did not have splotching added.

Those splottes added after delivery were typically in the form of 'swipes with knots', 'swipes with tails', and 'hands' or 'spiders' of widely varying kinds. That is, varying on each aircraft as well as from one aircraft to the next. They also sometimes included flicks and swipes across the upper fuselage as well.

But once splotching became a part of the required basic camouflage finish in 1943, it took on a more regular 'factory finish', or at least, modification centre finish, kind of appearance, typically employing lobes and ripples, shapes with a more coherent outline and surfaces. All of these are factors which, when combined with the effects of light and shadow, can make those Medium Green splottes sometimes teasingly tricky to spot in photos.

**Notes on the drawings**

Colour File is not pretending for a moment that what is shown here this month should be considered definitive in any way at all. But rest assured all were made only after close and reflective scrutiny of visual references. Collectively they may be viewed as representative of USAAF splotched camouflage, and it is showing much greater similarity from one aircraft to the next, the paint applied more 'professionally' [Figure B].

But it is important to note that, generally speaking, splotching appears not to have figured in the camouflage paintwork of most fighter types, such as the P-38 Lightning, P-47 Thunderbolt and P-51 Mustang. The clear exception to this being the P-40. After camouflageing of fighters and bombers had been officially abandoned and deliveries to the USAAF in bare metal finish were under way, significant numbers of tactical fighters and light B-26. It would seem that only a relatively small number of Marauders wore what could be pre-delivery splotching. A sort of rippling style was to be seen on numbers of B models hoped that with what we have been able to show here, some readers might find a renewed interest in the quirks and characteristics of this interesting camouflage device, and in the challenge of tracking down examples.

**Dan K. Baker**

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Aircraft Colour Profile... **F7F TIGERCAT**

A single seat F7F-2 just off the production line in August 1944. Note the non-standard pitot installation on nose.

An F7F-2N of VMF(N)-533 flown by Sqn. Cdr. Maj R Keller during transit from Okinawa to Shanghai for a year long deployment in Peiping, China, from October 1945.

Engine Control Quadrant
T-handle for emergency brakes

Nose Gear
Note the non-standard antenna installation seen on some F7F-3Ns

Underside of Port Wing
Oil cooler intake
Gun camera
20mm guns
Radar altimeter antenna
Wing pylon
Radar operator cockpit and instrument panel in F7F-2; APS-6 RADAR controls and screen at panel centre.

Mk 8 Gunsight Reflector screen Filters Lens system Projector Crash pad

“Linda” an F7F-3N of VMF(N)-513 based at Pyongtaek (K-6) Korea during the Summer of 1952. This well worn aircraft shows the Sea Blue original finish under the matt black overpainting used on these night intruders; codes in dull red.

Another F7F-3N of the “Flying Nightmares” during the Winter of 1951. Note unusual white radome on matt black finish; codes in white.

Aircraft Colour Profile... F7F TIGERCAT
Two of the latest titles in this range of specialised books dealing with WWI aircraft types have made their way to us from Albatros Productions.

The first is the latest addition to the Datatfile series and it deals with the Royal Aircraft Factory (RAF) RE5/7 designs. This title is written by J.M. Bruce, a well known authority on WWI types.

The designs of the RAF such as the BE2c, RE8 and S.E.5a have all been well covered in the past, but the reconnaissance designs such as the RE5/7 have never been dealt with in any depth before. The background history of the design concept starts with the RE1 and then moves on to the floatplane version, the Hydro-Aeroplane HRE2. The RE3 and 4 come next and then the text moves on to look at the RE5. The development of the design is dealt with in some depth and then the text moves on to the entry of the type into RFC service and the award of a VC to Capt. J.A. Liddell, the pilot of an RE5.

As the text moves on to cover the RE7 you come across the sets of scale plans. The first is the RE5 and you get a complete set in 1/48th scale, this is followed by a similar set for the RE7 and this is followed by 1/72nd scale sets for both. The content now moves to dealing with the use of the RE7 and the RFC's obvious dislike for the type. The final section of the text deals with the three seat conversion of the RE7.

The last segment of this title is a detailed look at the RE5 and 7 and there are a mass of photographs to illustrate various areas of the airframe. This is followed by a section dealing with camouflage and markings of the RE5/7 and finally a section with technical data of the designs.

The next title is a special and deals with the Bristol Fighter. Once again this book is written by J.M. Bruce and it offers a mass of new information on the type. This special is A4 with a laminated colour cover and fifty pages of contents, most of which are in black and white, although there are a few pages of colour included.

The text starts with a look at the development of the design which led to the F2/2 with a look at the F2A, R2B and F2A. You get a complete set of 1/72nd scale plans for the F2A and this is followed by two pages of colour artwork for the F2A and F2B. These side views include F2A A-3322 of No.48 Sqn, F2B B1124 of No.46 Sqn depicted in its new Dutch markings, B1134 of No.35 Sqn, D-8084 of No. 139 Sqn, B1125 of No.20 Sqn and an unknown machine operated by No.141 Sqn. Between these two pages of colour are 1/48th scale plans for the F2A. Having looked at the development and operational use of the F2B, the text starts to deal with the various engine units fitted to the type. You get a set of 1/72nd scale plans for the Falcon, Hispano-Suiza and Sunbeam Arab powered versions and this is followed with similar plans for these types in 1/48th scale. The rest of the title includes a mass of pictures of the F2B with a selection of odd colour schemes applied to the type. They include those covered in F.G. Cooleys's article in the June (see Vol 3 Iss 6 Page 382) edition, as well as a mass of others.

The book then moves on the the F2A and F2B in detail and there are a mass of colour and black and white photographs of various areas of these types. The colour pictures are of the F2B currently on display at the RAF Museum, Hendon, North London. The title then deals with colour and markings for the type and finally, a complete list of technical data for the types. This edition retails for £14.95.

Both these titles offer excellent details for the types and if WWI aircraft are your area of interest then I would suggest you purchase both and add them to your library. The quality of the artwork and scale plans in each make the titles excellent sources for the modeller as well as the historian. The technical data and selection of close-up photographs will be of great assistance to the modeller and the mass of photographs will leave you with no shortage of colour scheme options.

Each title is available directly from the publishers at:
Albatros Productions Ltd
10 Long View, Berkhamsted, Herts. HP4 1BY
Tel: 01442 875383 Fax: 01442 876018
Alternatively the series is available at selected outlets.

My thanks to Albatros Productions for the review samples.
The next chapter is entitled ‘Lessons from Hollandia’ and here the P-38L version is introduced as it was improved with the lessons learned by the pilots of the Hollandia campaign. At this point in the title you come across the colour section. Here there are a mass of side views of various aircraft: P-38s. As it is difficult to see the nose art etc on a P-38 each comes with another side view just depicting the centre section complete with all nose art etc. There are no fewer than twenty-five Olive Drab and Grey P-38s and twenty-four in overall natural metal.

There are also six portraits of some of the greatest aces from this area.

The title now turns its attention to the Filipinos and here you come across the well known aces such as Borg and McGuire. This section is followed by P-38s ace of the CBI (China-Burma-India) campaign. Here you come across some of those P-38s which were marked with snakes down each boom and engine nacelle, so if you thought this was uncommon, just check this section out as there seems to have been a mass of them!

The final chapter of this book looks at those two greats; Borg and McGuire. This is followed by a full listing of the top aces for the 5th and 13th AF, as well as the CBI campaign. As with the previous title next comes a series of scale plans. A four view of a P-38H is supported with side views of the P-38FG and the P-38L. The final few pages are the full descriptive captions for the colour artwork elsewhere in the title.

Each of these titles will offer a load of information to the modeller. The black and white photographs are of use and the colour artwork will inspire many modellers and deal manufacturers alike. The listings of the aces in each make this a good one-point reference source for that information and it is nice to see the Japanese theatre being covered in such depth after the mass of titles on the European theatres previously seen in this series.

At just £9.95 they represent good value for money and we can recommend them to all. These and all other titles in the series are available from most book shops.

My thanks to Osprey for the review samples.

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New title in MBI series

The Czech publishing company of MBI are well known and respected in the UK and one of their most recent releases has made its way to us via Czech Six Publications.

This new edition deals with the Republic P-47 Thunderbolt and it is offered with bi-lingual text in Czech and English. This eighty page book has a full colour laminated card cover with the majority of the rest of the title in black and white, although there is a six page colour insert in the centre. The text deals with the development of the type and looks at Seversky before you move on to the XP-47A and the AF-4 design. The XP-47B is covered next and there is a nice detail drawing of the style of access door employed in this type. A set of 1/72nd scale plans comes next with side views of the XP-47B, P-47B, XP-47E, XP-47F and TP-47G. A neat copy of the interior diagrams for the cockpit of the P-47B will be of great interest to the modeller. The next section of the book looks at the P-47C and here you get some nice detail drawings of the differences in the P-47C-RE, C-1-RE and the C-2-RE. Next is the P-47G and once again you get details of the differences in the G-1, G-5, G-10G-15 and G-16. The same goes for the P-47D and these show the D-1/D-6, D-10, D-15 and D-22. The different styles of rear view mirror in the D-25, D-40 and M and N versions are shown and then the title moves on to the D-25 and D-30/40. Here you get a nice interior illustration of the D version with a scrap view of the D-30's instrument panel.

At this stage in the title you come to the colour insert. The first page gives full colour views of the sidewalls for the P-47D. The next five pages offer colour side views for a mass of machines. These include a B, C, six razorback P-47D's and five P-47D bubbletops in USAF markings plus P-47D's in RAF, French, Belgian, Russian, Yugoslavian, Italian, Dominican, Portuguese and Patagonian markings.

The next section of this title offers a mass of scale plans and these include the P-47D-22, P-47C, D-30 and D-25 in 1/72nd scale. These plans include a mass of scrap views for details such as the undercarriage etc. Returning to the text, the book now looks at the XP-47N and P-47N. The differences in the N-1, N-5/1S/2025 are covered and there is a nice drawing of the P-47N's instrument panel and a good picture of the port sidewalk of the N-5(RE). Scale plans of the N-1 and N-15 in 1/72nd scale come next and then the text moves on to the various prototypes of the P-47. This section looks at the XP-47H, XP-47I and XP-72 and it includes scale side views of each. The next section looks at the operational use of the P-47 and in this section is a good detail drawing of the two seat version (P-47F-16G). The P-47 in Russian service is covered next. The final section is a technical section and it gives superb detail drawings of various structural details for the type. A full set of 1/30th scale drawings of the weapons carried by the P-47 are included toward the back of the book with the 20ib bomb carrier, the 500ib bomb fitted with 20ib bombs attached to them, the standard 500ib bomb, the 1000ib bomb, 5in rockets, 5in HV&R's, 4.5in rocket tube launcher's and a 20mm cannon installation. The last page is a set of scrap views of the undercarriage bay and oleo legs for the P-47.

The back page of this title is in colour and it has three side views and two plans of the P-47, this includes the P-47D-27-RE 'Angie' which was used in the Hasegawa 1/48th scale kit. This model is also depicted on the cover of this title.

Overall, if you want to know anything about the P-47 and all the technical details that go along with it, then look no further than this title. This and all other titles in the MBI range are available in the UK from Czech-Six Publications. This title costs £3.70 plus 60p P&P. Contact them on 01932 866426 or fax them on 01932 867099 for more details.

My thanks to Czech-Six for the review sample.

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Bookshelf Update

**Warbirds Worldwide**

Many of you may well be aware of this excellent aviation title already. This high quality magazine has recently celebrated its 10th anniversary.

The magazine is produced quarterly with 64 pages and a full colour laminated cover. The entire magazine is based around the preservation of classic aircraft and their operation as airworthy machines. The first section deals with news from around the globe and this is followed with features on Historic Flying, the restoration of an Fw 190A, P-51A ‘Polar Bear’, Part one of a survey of Avro Lancaster survivors, a replica of the Boeing P-26A Peashooter, VimTech, the Scandinavian Historic Flight, flying the P-51 ‘Crazy Horse’ and finally a look at the rebuilding of a selection of P-40’s in the USA.

Because of the quality and sheer detail offered within the pages of this title, it is very suitable for the modeller. Each edition retails for £5.50 and you can obtain copies or a subscription directly from: Warbirds Worldwide, PO Box 99, Mansfield, Notts. NG19 9GU

**FAMAS**

The latest edition of the ‘Frog & Airfix Model Aircraft Society’ (pronounced ‘Famous’), Vol. 2 No. 6 March/April has recently been released.

The A4 booklet includes details of the latest releases from Airfix and features on the FROG F6/Mk 53 Lightning, Airfix ‘Antarctic’ Auster and a very interesting feature on methods of dating early Airfix kits.

If you are interested in Frog or Airfix kits then this society is for you.

Contact the society via: Mr Merv Hambling 35, Rosebery Road, Suffolk Park, Cronomb, Norfolk. NR27 0BX

**New Monogram Title**

It has been a long wait, but well worth it as at last the first volume on German Aircraft Interiors has just been released.

This hardback title comprises 256 pages and a mass of black and white colour illustrations. The title starts with a detailed look and good photographs of the instruments, controls and equipment fitted to Luftwaffe types. The book is further followed by a detailed look at the interior of a mass of fighter aircraft from the 1935-45 period.

These include:
- Ar 68E-1, F-1, He 51B-1, Bf 109 V1, Ar 76A-0, He 112B-0, Bf 109B-1, C-1, D-1, E-1, E-3, Bf 110C-1, Me 209 V4, Fw 187A-0, He 100D-1, Bf 109E-4, E-7, F-2, Bf 110E-1, Bf 109T-1, F-4, Fw 190A-1, Bf 110F-2, Me 210A-1, Bf 109G-1, G-2, Fw 190A-3, Me 309 V1, He 280 V3, Bf 110G-2, Me 410A-17/22, Bf 109A-6, Bf 109G-6, Fw 190A-8, Bf 109G-14, Ta 154A-1, Me 262A-1a, Fw 109D-9, Bf 109K-4, Do 335A-0, Do 335B-2, Bf 109C-10, Ta 152H-0/H-1, Bv 155B-1, Ta 152C-0/C-1, Fw 109D-12, He 162A-1A-2, He 229 V2/V3, Me 163B-2, Me 163C-1, Ju 248 V1 and the Me 263A-1.

There are good drawings and some interior photographs for these machines and although some of the lesser types do not have that many photographs, there are a mass for the better known types.

The book can be obtained from some specialist book shops in the UK or directly from the publisher at: Monogram Aviation Publications, PO Box 223, Starbrige, MA 01566-0223, USA. Tel: (508) 347 5574 Fax: (508) 347 5772

**Latest Aerodetail**

The latest addition to this Japanese text series of books is for the Heinkel He 111. This title looks in detail and presents examples of the He 111’s with the E that is preserved in Japan, the P-1 which is in Norway and the H-20 which is in the RAF Museum. There is a mass of good quality colour and black and white photographs of these machines, both inside and out. The rest of the title has detailed drawings of various areas of the He 111 and there are scale plans.

The UK price for this title is £23.95 and this may seem a little expensive, but it is the best technical detail source I have seen on the type. It is also nice to have details of the E version in Spanish.
**ABINGDON IPMS** meets on alternate Tuesdays at 7pm in the St James Church Hall, Deerchester Crescent, off Appleton Drive, Abingdon. All ages and skill levels welcome. A small charge for your interest in model aircraft, ships, sci-fi, cars etc. For more information contact Tony Clements on 01235 522893.

**AVON IPMS** branch meets the third Wednesday of each month at The Rotunda Club, Moravian Rd, Kingsthorpe, from 7.30pm to 11pm. For further details contact Brian Ellis on 01865 786295.

**BRADFORD IPMS** meets at The Crown, Horton Bank Top, Bradford on the 4th Tuesday of each month at 7.30pm. For further details contact Martin Fisher on 01204 340292.

**BRAMPTON SCALE** Model Club (incorporating IPMS Brampton) is open to all modellers in the Brampton area and surrounding districts. Anyone wishing to join should contact the secretary, Sam Barby, 39 Ermine Way, Sunbury, Huntingdon, Cambs. PE17 2UQ. Tel: 01487 830869.

**CHELMSFORD MODEL Club meets the first Monday of each month at 7pm at The Cricketers Public House, Mocksham Street, Chelmsford. 7.30pm. We hold a monthly competition so why not drop by. For more information contact Stuart Shakespeare on 01245 609098.

**THE CHILTERN Scale Model Club (incorporating Chiltern IPMS)** meets on the 1st or 2nd Wednesday of each month from 8pm to 10pm at the Shefford Memorial Hall, Shefford, Bedford. Why not come along everyone is welcome. For more information contact Martin Ford, 127 Chiltern Rise, Steventon, Herts SG9 9QG. Tel: 01442 282385. Fax: 01442 748754.

**THE CLACTON Branch of the IPMS meets on the first Monday of every month at 7.30 at The Imperial Hotel, Clacton-on-Sea. For more information contact Peter Terry on 01255 426954.

**LORDSWOOD (JUIN) Model Club is meeting at Room 403/404 between 4.15 and 6.15pm at the Lordswood Public Library, Kestrel Road, Lordswood, Chatham, Kent ME5 9TH. The club supplies basic modelling materials and equipment and is sponsored by REVELL (GB), so why not go along and have a look. For more details contact Mr D. Jodat on 01634 841504.

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**Hunters for Sale**

**LARGE COLLECTION of 1:72 scale aircraft kits - plus spares and accessories, decals and instruction sheets. For lists call 0194-5601558.**

**TWO NEW collections of aircraft kits for sale. Over 300 items, mostly 1:72 scale, some decals and accessories. Send an A4 size stamped (35p) SAE to the Editor for further details.**

**TAMIA 1/48th scale Lancaster B.II/III with 100 group conversion set (Paragon) and WWII aircraft dispersal set. Also Dragon 1/48th scale 'Knight of the series' Fighter Focke D.J 'Jacobs with two alternative decal sets. Complete with 35p paperback guide, £35.00 the lot. Contact Ian on 0181 252 0013 (Fees).**

**115 KITS all unmixed, boxed, collected over 30 years, all various scales, all include decals and instruction sheets, bargain prices. SAE's for lists to J.L. Thompson, 51 Dale Road, Hythe, Southampton. SO46 5DR. Tel: 01703 845278.**

**ACES and AEROPLANES No. 2, Guymerson, £3.00, 'The Best of Windsork No. 2, £3.00, 'Scale Model Aircraft in Plastic Card, £2.50, Contact C.E.Read, 56 David Road, Woodville, March/ Oct Nov 86, Mary May/ June July/ Aug Sept/ Oct Nov 87, Ian to Nov 88 (inc) and any 1989 editions. Offers to the Editor at SAM Publications, 24 Grove Place.**

**SCALE MODELS October 1996, Wingspan No. 1 March/April 1989, USAF Yearbook No. 1, £3.50 or £3.95. For further details please ring 0141 685 911. All modellers and all ages welcome.**

**STAFFORD IPMS Model Club. From aircraft modelling to soldier and everything in between, all new members are most welcome. For more information contact the secretary on 01612 373282.**

**SCALE AVIATION MODELLER International**

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**MILDENHALL PLASTIC Model Club meets every 2nd and 4th Wednesday of each month at the Bob Hope Centre, Mildenhall Air Base, Suffolk. For further details contact Steve Barber on 01223 442882.**

**MODELEXX - EAST Devon Model Club is now called Isca Scale plastic Model Club see the information sheet for details.**

**NORTH STAFFS Model Club meets every Thursday 7pm - 10pm at the Seabridge School, Roe Lane, Newcastle-under-Lyme. Contact Stefan on 01782 618181 or Phil on 01782 544612 for more details.**

**NORTH ESSEX Model Club, a new club for all those interested in Scale modelling at the Civic Service Club, Flagstaff Road, Colchester on the 2nd Monday of each month. Ring Jerry Baker on 01206 85380 or 01206 575256 for further details. All ages and interests welcome.**

**ROBERTSBRIDGE AVIATION Society Model Club meets every Wednesday at 8.00pm at Bush Barn located on A21 going north from Robertsbridge. All are welcome whatever the skill level. For more information contact David Morrice, 8 Belvedere Gardens, Crowborough, East Sussex TN6 2LR or Tel 01892 654570.**

**IPMS SOUTH East London have moved. We now meet at West Greenhouse, Greenwich High Road, Greenwich, SE10. Greenwich is one minute walk away and bus 177 passes the door. Meetings are held on the second Tuesday of each month at 7.30pm. New members and visitors are always welcome. For more details please ring Paul Brack on 0181 650 6504 or Email: greenwichipms@hotmail.com. Tel 0181 669 8912. For a map please send an SAE to Alan Partnership at 100, Culverley Road, Catterick, London. S69 2FY.**

**ISCA SCOUTING/SMALLSOUTH EAST ON SEA Model Club (South East IPMS) meets from the third Wednesday of each month at the Civic Centre, Shoeburyness Sea Side. We will be having our 200th anniversary competition and all ages are welcome. For more information contact Dean on 01702 603031.**

**SOUTH LONDON Scale Model Club meets the second Tuesday of each month at the Sports Centre, Culvert Road, off Battersea Park Road, London SW11 4LT, Tel: 0171 738 2871. For further details please ring 0141 685 9110. All modellers and all ages welcome.**

**STAFFORD IPMS Model Club. From aircraft modelling to soldier and everything in between, all new members are most welcome. For more information contact the secretary on 01614 373282.**

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**MILITARY MODELLING Society in the Grays Adult Education Centre, Bridge Road, Grays, Essex on the last Friday of each month at 8pm. All are welcome, whatever your age and modelling experience, junior members urgently wanted. For more information please contact John Davies on 01375 406985 or Steve Moore on 0780 853319.**

**WALLSEND IPMS meet on the second Sunday of each month at the Grays Adult Education Centre, St. Georges Road, WallSEND, 10am to 2pm. We are a friendly group for all levels and subject areas. No need to book. If you would like to know more contact Phil May on 01235 535701, or Geoff Wakenham on 0191 833471.**

**WATFORD SCALE Model Club cat for all scale model builders, whatever their interests. We meet on the second Tuesday of each month at the Orbital Community Centre, Haines Way, Leveden, Nr Watford from 6.00pm to 10.30pm. For more information contact Nigel Foster on 01922 667210.**

**WEST MIDDELESE IPMS meet on the last Thursday of each month from 7:30pm at Matthew Arnold School, Kingston Road, Staines. Contact Les Clancy on 01784 465019 or Tony Horten on 01929 473895.**

**YORK & DISTRICT Plastic Model Society meets the third Friday of each month at 7.30pm at Yorkshire House, 48 Tadcaster Road, York. We are a friendly & supportive to all skill levels, we do not count rivets! Contact Chris on 01405 873408 or Joel on 01904 766895 for more information.**

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**Model Clubs!**

If you would like to attract more members to your club, why not let people know where and when you hold your meetings via this page. Just write or fax the details to the editorial address, there are no charges!
Forthcoming Events

Events Diary at a glance

July
6th • IPMS Mid-Sussex Model Show (Newhaven).
26th • Tayside Modelling Society Swapmeet (Perth).
26th & 27th • North East Scale Model Show (Hartlepools).

August
3rd • Jorvik Model Show (York).
16th • IPMS Avon Model Show, Bath.

September
6th • Sunderland Scale Model Club Annual Show.
7th • The Aero Space & Vehicle Club's Annual Model Show (Wolverhampton).
14th • Model Spectacular II (Sutton Coldfield).
14th • Leicestershire IPMS Model Show.
14th • Mid-Herts Model Swap Meet (Harpenden).
21st • Wallingford IPMS (UK) Annual Show and Competition.
28th • Blackpool Model Show.
28th • Scale Model Extravaganza (Midland Air Museum) - Note new date

October
3rd & 4th • The great Philadelphia Scale Model Exposition (USA)
4th • Abingdon IPMS Model Show.
25th • IPMS Flying Tigers, Louisiana (USA).
25th & 26th • South West Model Expo 97 (Bovington).

November
1st & 2nd • IPMS National Championships (Donington).

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- IPMS MID-SUSSEX Model Show will be held at Newhaven Fort, Newhaven, East Sussex on Sunday 6th July 1997 from 10.30am to 5pm. Admission is £3.25 for adults, £2.25 for senior citizens and £1.75 for children. For more information contact Brian Carter, 23 Whitchoke Place, Brighton. Tel: 01273 592370 (evenings only).
- TAYSIDE MODELLING Society is holding a second swapmeet in the Oakbank Community Centre, Viewlands Road west, Perth on Saturday 26th July 1997 from 12.00pm and 4pm. Admission is £1.00 per person and this includes the use of a table if required. Tables must be pre-booked and further information is available from Keith Herd on 01738 629555 after 6 p.m.
- THE NORTH EAST Modelling Societies fourth annual North East Scale Model Show will be held at Hartlepools Borough Hall, Middlelodge, Headland, Hartlepools, Cleveland on Saturday 26th and Sunday 27th July 1997 from 10am to 4pm. Free entry to the hall and competition with ample free car parking. For information pack contact Len Swaisland, 6 Jude Place, Peterlee, Co. Durham. SR8 2WJ Tel: 0191 5867139.
- JORVIK MODEL Show will be held at Archbishop Holgate's School, Hall Road, York on Sunday 3rd August 1997 from 10am to 4.30pm. Admission £1.50 for adults and 50p for children. Open competition including juniors and beginner. For more details contact 01904 415093 or 01653 693005.
- IPMS AVON'S 8TH Annual Model Show will be held on Saturday 16th August 1997 at The Pavillion, North Parade, Bath. The event will feature 30+ club stands with a similar number of traders. The event has the added bonus of being just 3 minutes walk from the centre of the beautiful city of Bath. Bring along the family and let them loose! For more information contact, Debbie Smith, 26 Sherbourne Avenue, Bradley Stoke, South Gloucestershire, BS32 3BB Trade and clubs should contact Steve Larkin on 0117 9245850.
- SUNDERLAND SCALE Model Club will be holding their annual model show and competition on Saturday 6th September 1997 in the Students Club, Sunderland University, Manor Quay Building, St. Peter's Wharf from 10am to 4pm. Admission will be £1.00 for adults. For more information contact D.Walton, 45 Ferryboat Lane, Sunderland. S53 3RD Tel: 0191 5847744.
- THE AERO SPACE & Vehicle Club's annual model show and competition will be held at the Community Centre, Church Road, Wombourne, Wolverhampton on September 7th 1997 from 10.30am to 4.30pm. For more information contact Mr. Johan Van Leerzen, Bells Lane, Stourbridge, West Midlands. Tel: 01384 278600 or Mr Norman Robinson, 10 Otterburn Close, Heath Hayes, Cannock, Staffs. WS12 5TW. Tel: 01543 276225. Please include a stamped SAE with all enquires.
- SUTTON COLDFIELD Model Makers Society presents Scale Model Spectacular II on Sunday 14th September 1997 at the Sutton Hall, West Midlands from 10am to 5pm. For more information contact Robert Day on 01675 549049.
- LEICESTERSHIRE IPMS Model Show will be held on Sunday 14th September 1997 at Broughton Astley Village Hall from 1pm to 5pm. For more information contact Martin Connolly, 40, Richardssons Close, Broughton Astley, Leics. LE9 6NU Tel: 01455 284690.
- MID-HERTS MODEL Swap Meet will be held at Harpenden Public Hall, Southdown Road on Sunday 14th September 1997 from 10:00 a.m. to 4:00 p.m.

Scale Aviation Modeller will advertise forthcoming events in this column free of charge for event organisers who wish to give advance notice of their shows. We will continue to run your notice until the event is held, space permitting.

Admission £3.00 adults, £2.00 for OAP's and £1.00 for children. Free parking and refreshments on site. For more information and for bookings phone 01582 629525, Mobile 0976 375222 or 01296 276499 (after 6 p.m).
- WALLINGFORD IPMS will be holding their third annual model show and competition on Sunday 21st September at The Regal Centre, Wallingford from 10am to 4:30pm. All proceeds will go to the Leisure Library. For more information contact George Clark, 7, Station Road, Wallingford, Oxon. OX10 0HU.
- IPMS AVRO Lancashire presents the 1st Blackpool Model Show at The Cliffs Hotel, Blackpool Promenade on Sunday 26th September 1997 from 10am to 5pm. For more information contact Ray Ashworth on 01204 669770, Dave Vickers on 01955 603454 (day) or 01525 668120 (eve) or Lloyd Martin on 01772 760747.
- SCALE MODEL Extravaganza 1997 and Open Competition. To be held at The Midland Air Museum, Coventry Airport, Baginton, Coventry on Sunday 28th September, NEW DATE, from 10am to 5pm. Admission which includes all of the Museum, £3.00 Adults, £2.00 Child, £2.75 Senior Citizens and £9.00 Family. For more information contact Mrs Diane James, Museum Manager, on 01203 301033.
- THE GREAT PHILADELPHIA Scale Model Exposition will be held on October 3rd & 4th 1997. For more information contact Convention Hotline, 1-610-325-9524, Fax: 1-610-325-3469, E-Mail John Cottman, cottman@msn.com or write to: Jan Harrison, 26 Schoolhouse Lane, Broomall, PA 19008-1830.
- ABINGDON IPMS Model Show will be held on Saturday 4th October 1997 at Preston Road Community Centre, Abingdon, Oxon. Open 10am to 5pm. For more details contact Tony Clements on 01235 228893.
- THE IPMS FLYING TIGERS Scale Model Builders are hosting the Great South Model Contest V at the John Curtis Christian School in River Ridge, Louisiana on October 25th 1997. Information available from IPMS Flying Tigers, 710 Carondelet St. New Orleans, LA 70110, USA. This years theme is 'Nightfighters' and 'Nightriders'.
- SOUTH WEST MODEL Expo 97 at The Tank Museum, Bovington, Dorset. BH20 6LG on the 25-26th October 1997. For more details contact The Show Organiser at the above address or Tel: 01929 405096; Fax: 01929 405360.
- THE IPMS (UK) National Championships will be held at Castle Donington on the weekend of the 1st & 2nd November 1997.
Bristol Beaufighter Mk VI

Due in UK by the time this is read

Heinkel He 219

Due in UK by November

Grace

Due soon
A Blohm & Voss BV 134
In March 1944 Blohm & Voss designed an unusual dive bomber/ground attack aircraft with combined propeller/jet engine unit. The asymmetrical design offered certain armament advantages over conventional aircraft. The practical advantages were good visibility, powerful weapon concentration, high ground speed, great climbing performance and good take-off power. Maximum speed 710 Kmph. However the project was abandoned just before the end of the war.

Yet another completely new 1:72 scale aircraft in the popular P-Series from Revell
Both these model kits are available from good model shops

WOULD THEY HAVE FLOWN?...
COULD THEY HAVE Fought?...

Jumo 004 Jet engine
detailed cockpit & instrument panel
recessed panel lines
detailed BMW 801 radial engine
detailed bomb bay
engine maintenance flaps can be built open or closed
movable propeller
decals for several variants

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