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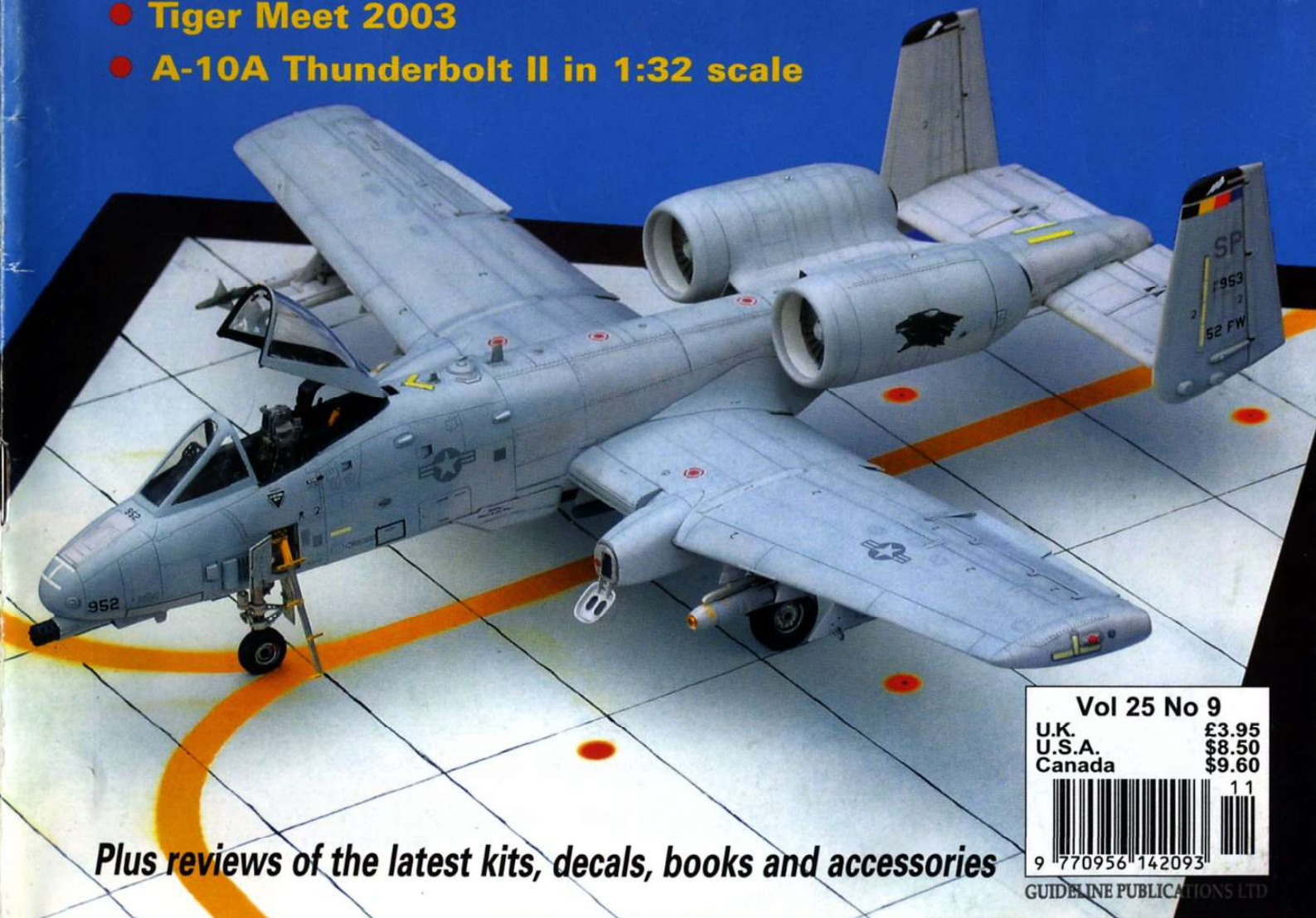
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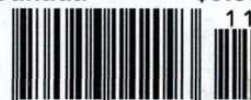
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- RAF, RCAF and FAA 1940's colour archive
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Vol 25 No 9

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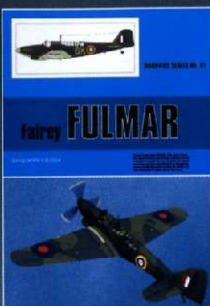
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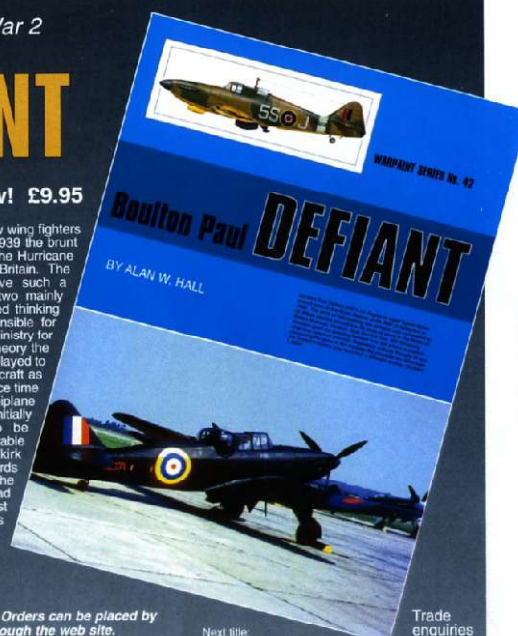
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## Younger modellers

Revell has recently supplied *Scale Aircraft Modelling* with a good cross section of its recent aircraft releases. Among the kits unpacked in the SAM office, we found three 1:100 scale easykits. Three options sprang to mind for these in terms of news and reviews, the first was to ignore them, the second was to have myself and the usual suspects put them together and see what came out and the third, more favourable option, was to have them reviewed by members of their target audience.

Initial reports are that all three are going down well. Indeed, talking to one of the fathers involved made me realise just how important the first kit is to a child, if the modelling bug is to bite. We both tried to remember our first kits - I think mine was an Airfix Scammell lorry, and I don't think we came to a conclusion about his. We know that his daughter's was a Longbow Apache though, and that it has caused considerable excitement. Let's hope the bug does bite, because new modellers, especially young new modellers, are surely the future for our wonderful hobby.



Paul E. Eden  
Managing Editor

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**Front cover: Making the most of aftermarket detail and decal sets, Michael Ullmann produced this sensational A-10A Thunderbolt II from the Trumpeter kit.**

### Features planned for next month include:

**Aircraft in Profile:** Andy Evans reviews the fortunes of the first-generation F/A-18 Hornet on the export market, with profile artwork by Mark Rolfe

**1:48 scale modelling:** In a follow up to Tony O'Toole's piece on the Sea Gladiator (Interim), David Batt builds the RAF's Gladiator from the Roden kit

**SAM plans:** Peter Green illustrates a trio of Italian Schneider racers

**1:32 scale modelling:** Peter Green describes his superb build of Hasegawa's all-new 1:32 scale Bf 109G kit in detail.

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## The In Tray



Two new items have come in from the Azur 1:72 range. The Nardi FN.305 Italian trainer comes with markings for three aircraft, a French machine from 1940 and two Italian aircraft. One is the personal mount of Sqn Ldr Tito Falconi of No. 23 Group while the other Italian Nardi is of the Scuola Caccia di Castiglione del Lago flying school. The other item is in complete contrast – the Vultee V-1A. It comes in the guise of the modified Spanish variant complete with upper gun position, and includes two sets of markings for aircraft used by Grupo 72 of the Spanish Republican Air Force in 1937 and 1938, respectively.



The latest 1:72 kit from Czechmaster Resins is for the Westland Wyvern S.Mk 4. It has superb detail, including separate airbrakes and a full weapons load which includes a torpedo. Markings are provided for three machines: VZ765/270 'E' from No. 813 Squadron, HMS Eagle, 1957; VZ799/690 'FD' from No. 764 NAS, Ford, 1956 and WP337/378 'J' of No. 830 NAS, HMS Eagle, during Operation Musketeer, December 1956.



Under the MPM label a 1:72 Douglas

DB 8A-3N has been released. This aircraft was an export derivative of the Northrop A-17A and the kit is supplied with markings for three Dutch machines: '397' based at Soesterberg, September 1939; '388' of No. 3 fighter squadron, No. 2 wing; and '393' from the same unit.



SAM has received three kits from the Special Hobby range, for the Heinkel He 59B/D with markings for two Luftwaffe aircraft based at Kontiolahti in 1942 and 1943, respectively; plus one Finnish aircraft of Lentolaivue 30 at Johannes, August 1943. The Polikarpov R-Z comes with marking for four Soviet machines. These are '5' from the 719th Light Bomber Aviation regiment 1941; '6' from the 452nd Aviation Regiment, Charkov 1935 (this aircraft is a ski version); '6' which took part in an air show at Tushino in 1937; and a machine of the 6th Light Bomber regiment. The last new Special Hobby release should excite many British modellers – it is for the de Havilland Hornet F.Mk 1. Markings are included for three examples: PX252 of No. 65 Sqn flown by Sqn Ldr C. Haw, Linton-on Ouse, 1948; PX232 of No. 65 Sqn, Linton-on Ouse, 1946; and PX284 of No. 19 Sqn, Church Fenton, 1946-47.

The latest kit from Pavla is for the Miles Martinet TT.Mk 1 in 1:72. Markings are included for four aircraft: RG958 of No. 723 Sqn (FRU), Bankstown airfield, NSW, Australia, February 1945; NR434/V of the Target Towing Flight at St. Eval, spring 1945; NR484 of the French air force, Cazare air base; and PX134 of No. 772 Sqn, FAA at Tambaran air base, Southern India, 1944-45. It is interesting

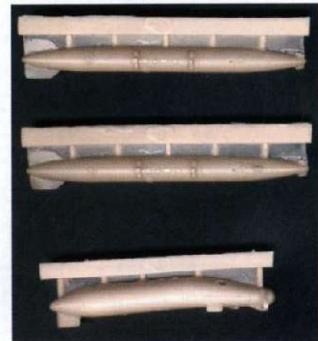
to note that three of these schemes used SAM as a source of reference.



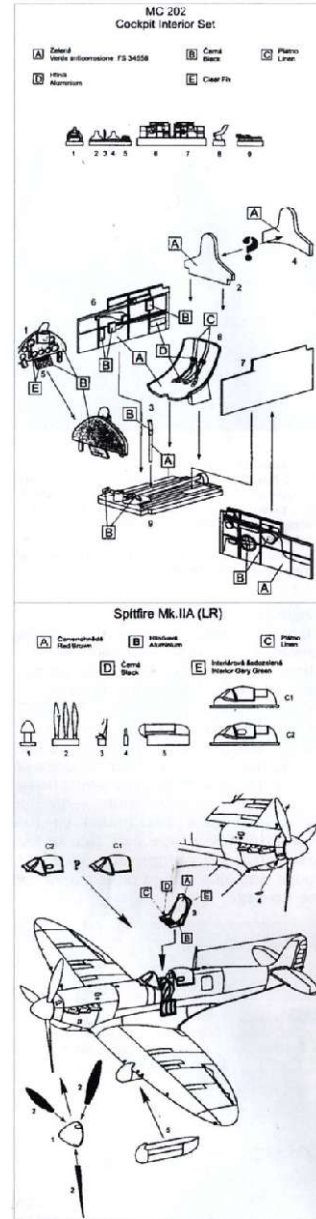
### Detail and conversion sets



Brigade Models has announced the release of a Spitfire Mk IX two-seat trainer conversion. It will include a new injection-moulded fuselage, furnishings for the rear cockpit and a vacform canopy to cover it. The set will be available in 1:72 scale for around £18.99 and in 1:48 for around £22.99. Markings will be provided for four aircraft in the 1:72 scale version (as seen above) and for three in the 1:48 scale release.

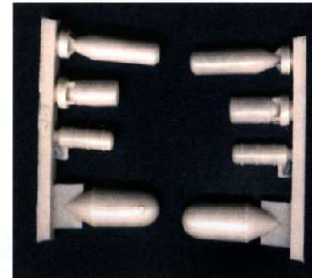


SAM has received a number of Pavla detail sets as follows: drop tanks for the MIG-29 (PTB 1500 and PTB 1150); a 1:72 MC.202 cockpit detail set for the Hasegawa kit; an upgrade kit for the Spitfire Mk IIA (LR) – this set contains the 40-imp gal port wing tank, Coffman



starter bulge, Rotol propeller and spinner, plus vacform canopies; RAF Things Under Wings, including a 45-imp gal napalm bomb, an SCI canister, a CLE Mk III supply dropper and a 500-lb Mk 2 smoke bomb. All these are in 1:72. In 1:48 under the title Supermarine Spitfire, comes six vacform canopies for use on the Mk I, PR.Mk I, Mk II, Mk VB, Mk VC, Mk VIII, Mk IX and Mk 16.

## A First Look at the Latest Releases

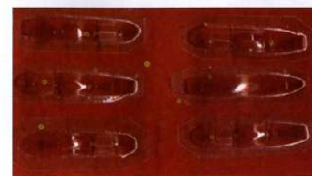


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**Curtiss P-36 and P-40**

## Pre-war US service

As the war in Europe intensified, US fighters, including the front-line P-36 and P-40 forces, began to acquire camouflage, as this extract from *SAM's Combat Colours Number 3: The Curtiss P-36 and P-40 in USAAC and USAAF service 1939 to 1945* explains.

The origin of the Curtiss P-36 and P-40 series lies in an Army Air Corps Specification issued in 1934 calling for a fighter of all-metal, low-wing design, which was to have a top speed of 300 mph (483 km/h). Armament was to consist of two machine-guns, one of 0.3-in and one of 0.5-in calibre.

In all, five companies, including Curtiss, tendered designs to this specification and the Curtiss submission, known at this time as the Curtiss Model 75, flew for the first time in mid-April 1935. Over the next year or so all the firms tendering submissions to this specification ran into trouble of one sort or another, and ultimately the Seversky submission was accepted by the Air Corps and put into production as the P-35A. As a 'consolation prize' for being judged second, Curtiss was awarded a production contract for three Curtiss 75Bs, powered by the Pratt and Whitney R-1830 Twin Wasp radial engine, to be used as service test aircraft.

Known as YP-36s, these aircraft received enthusiastic comments from Army Air Corps test pilots, and on the basis of this evaluation the Air Corps decided to order the Curtiss fighter into production, placing a contract on 7 July 1937 for 210 aircraft. Deliveries began in April 1938, with the P-36A entering service with the 55th, 77th, and 79th Pursuit Squadrons of the 20th Pursuit Group at Barksdale Field, Louisiana.

### The first of the breed

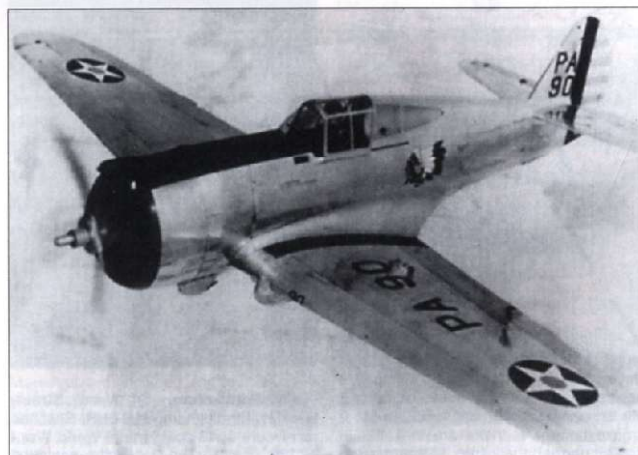
The P-36 entered service in an overall natural metal finish, with a matt Bronze Green anti-glare panel on the forward fuselage just in front of the cockpit. The national markings carried by these

aircraft were the 'star in a disc' insignia with a red centre spot, positioned above and below both wings, and a red/white- and blue-striped rudder. The legend 'U.S. ARMY' appeared in black across the undersides of the mainplanes.

General Headquarters Air Force markings consisted of the squadron colour on the cowling which was to be either white, yellow, red, and (in the case of a four squadron group) blue. Within each squadron, the Squadron Commander's aircraft was distinguished by two vertical stripes around the fuselage, 'A' Flight Commanders' by a

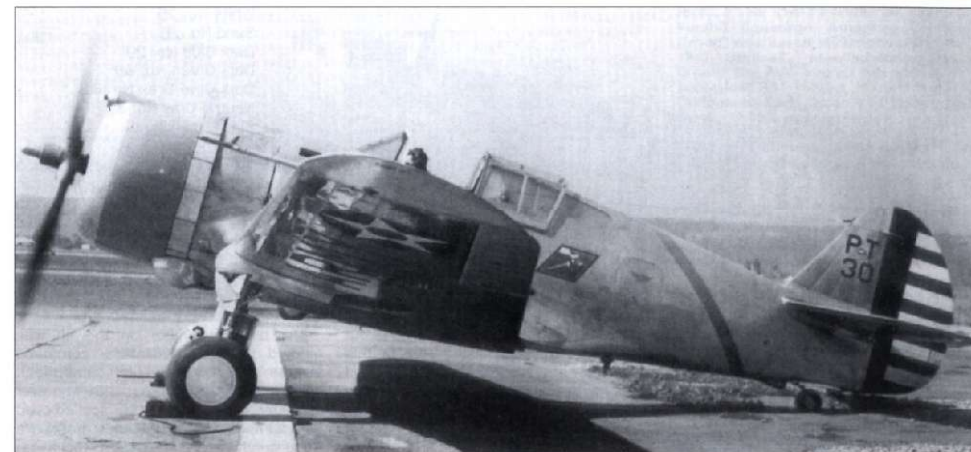
single vertical stripe and 'B' and 'C' Flight Commanders' aircraft by a single forward and a single backward, inclined stripe respectively. All these stripes were applied in the squadron colour.

The GHQ 'Airplane Number' designator was applied in two lines on each side of the fin and in a single line on the upper and the lower surfaces of the port wing, in black. The pilot's name was applied in white on a black rectangular background on the forward portion of the port side of the fuselage. An authorised squadron badge was also carried on each side of the fuselage.



P-36A PA 90, of the 94th Pursuit Squadron, 1st Pursuit Group, circa 1940, shows the famous 'Indian's Head' Squadron badge on the fuselage and GHQ designator above the port wing. The cowling ring was Insignia Red.

The aircraft in this formation of P-36Cs of the 27th PS, 1st PG, (with PA 69 in the foreground), are all in Specification 14057-B temporary paints applied for camouflage trials in late 1939. The colours include White 25, Sand 26, Dark Blue 29, Dark Green 30, Dark Olive Drab 31, Neutral Gray 32 and Black 33.



Above: P-36A PT 30, of the 79th Pursuit Squadron, 20th Pursuit Group, circa 1940. The aircraft was natural metal overall with an A-N Orange Yellow cowling and Flight Leader's stripe around the fuselage. Note the placement of the Squadron badge on the fuselage, 'U.S. ARMY' legend across the undersides of both wings and GHQ designator under the port wing.



Left: A formation of P-36Cs, all in Specification 14057-C Dark Olive Drab 31 uppersurfaces with Neutral Gray 32 undersurfaces. Note what appear to be Radio Call Numbers, (in Yellow?), on the fins, dating this photograph to late 1941.

was a standard which was to be used to control all paints supplied to both the Army and Navy for aeronautical use.

Each set of these new standards contained the following colours:-

- International Orange
- Insignia Red
- Insignia White
- Engine Gray
- Instrument Black
- Lemon Yellow
- True Blue
- Gloss Black
- Orange Yellow
- Maroon
- Aircraft Cream
- Aircraft Gray
- Olive Drab
- Blue Green

Three of these colours were significantly different to those they replaced. Insignia Red was brighter and more yellow than Red No. 15; Orange Yellow was less orange than Yellow No. 4; and True Blue was much darker than Light Blue No. 23 with no trace of green. It is interesting to note that once again Bronze Green was not included, Spec 3-1 still remaining the Standard for this particular colour.

After the delivery of 178 P-36As, the firepower of the type was increased by the addition of a 0.3-in calibre machine-gun in each wing, accompanied by a small bulged fairing under each wing to collect the spent cartridge cases. A more

One example of the authorised squadron badge was the 'Indian head' insignia of the 94th Pursuit Squadron of the 1st Pursuit Group. During World War I, Eddie Rickenbacker had flown with this unit and had introduced its well known 'Hat in the Ring' emblem. At the end of that war, Rickenbacker took the rights to the emblem with him, which led to the adoption of the 'Indian's head' emblem instead. With the outbreak of World War II, Rickenbacker returned the rights of the 'Hat in the Ring' emblem to the squadron, which has used it ever since.

### Early colours

The colours used were those of the Air Corps Porcelain Plates, which were issued in November 1935. There were seven colours altogether, six of which were colours drawn from Specification, 3-1, which was a general paint and

related materials specification, used by all the branches of the US Army.

The colours were:

- Yellow No. 4
- Red (Flag colour) No. 15
- Maroon No. 18
- Olive Drab No. 22
- Light Blue No. 23
- Blue (Flag Blue) No. 24

The only colour in the Porcelain Plates not taken from Spec 3-1 was White, since Spec 3-1 did not include either White or Black. Neither Black nor Bronze Green were included in the Porcelain Plates. In the case of Bronze Green, Spec 3-1 itself remained the Standard for this colour.

However, from September 1938 the colour standard used by the Air Corps was changed by the introduction of the Army-Navy (A-N) porcelain enamel aircraft colour standards, which as the name suggests,





This P-40E, still with its original GHQ 'Airplane Number' designator, 16 20P on the fin, was with the 79th PS, 20th PG, and featured temporary yellow rings applied for the war game exercises, circa November 1941.

powerful engine was also fitted and the designation of the enhanced aircraft was changed to P-36C, 32 aircraft of this type eventually seeing service.

The work-up period of the P-36A and P-36C was beset with many problems, but during 1939 additional units began to convert to the types – the 4th and 27th Pursuit Squadrons of the 1st Pursuit Group at Selfridge Field, Michigan and the 33rd, 34th, and 35th Pursuit Squadrons of the 8th Pursuit Group at Langley Field, Virginia. Besides these units, seven more groups, the 15th, 16th, 18th 32nd, 35th, 36th, and 58th went on to equip with the type.

#### Camouflage trials

Of these units, the P-36Cs of the 27th Pursuit Squadron of the 1st Pursuit Group at Selfridge Field, carried the first camouflage scheme to be applied to any of the Curtiss Hawk series in US service,

Right: A pair of factory-fresh P-40-CUs with Specification 14057-C Dark Olive Drab 31 uppersurfaces and Neutral Gray 32 undersurfaces. Note how the Neutral Gray sweeps up the rear fuselage sides to meet the leading edges of the tailplanes.

Below: Another P-36C finished in the Specification 14057-B temporary paints, possibly Dark Blue 29 uppersurfaces over Neutral Gray 32 undersurfaces, with a lighter shade of gray dividing the two.



White No. 25  
Sand No. 26  
Dark Blue No. 29  
Dark Green No. 30  
Dark Olive Drab No. 31  
Neutral Gray No. 32  
Black No. 33

While all the aircraft on the Squadron seem to have been camouflaged, no two aircraft appear to have been finished in the same scheme. Of the markings, while part of the Aircraft Designation number was retained on the fin and the command stripes and squadron badge was retained on the fuselage – on most airframes – all other markings were painted out.

The aircraft number on the fin was marked in black, while the command stripes were marked in camouflage colours so as to contrast with whatever camouflage colour they were applied over. For example, where the bands crossed a Sand segment of camouflage, they were applied in Dark Green, and where they crossed a Dark Green segment of camouflage, they were applied in Sand. The Squadron badge remained on the fuselage sides, apparently having the camouflage applied around it. This badge consisted of a black and white bird of prey, (thought to be a hawk), with yellow talons and beak, swooping to the attack, superimposed on a red background with a white surround.



#### First of the P-40s

While the P-36A was entering service and taking part in the camouflage trials, Curtiss were working on improving the design. The late 1930s was a time of rapid advances in all areas of aircraft technology and Curtiss was looking to increase the potential of the basic Hawk 75 design to maintain its competitive advantage. This was done by replacing the radial engine of the P-36 with an Allison inline, and the resulting design, the XP-40, participated in an Army Air Corps fighter competition held at Wright Field on 25 January 1939. After being judged the winner and following some modification, as the P-40, it was selected for production, with orders for 524 being placed in April 1939.

These early P-40s did not have an official suffix designator, but have often been described as P-40-CUs to distinguish them from other variants, especially where the term 'P-40' is used to describe all variants of what later became known as the 'Warhawk' family. The 'CU' suffix was the Army Air Corps designation for Curtiss as a manufacturer, and 199 P-40-CUs (sic) were built before production switched to the P-40B and P-40C. The P-40-CUs were delivered between June and October 1940 and were allocated the Army serials 39-156/220, 39-222/289 and 40-292/357.

#### Introduction of camouflage

By the end of 1939 it would appear that the first tentative conclusions were being

drawn from the camouflage trials, suggesting that a dark olive green colour was most suitable for the uppersurfaces and a medium grey colour was most suitable for the undersurfaces. As a result, with the war situation in Europe worsening, in the spring of 1940 the decision was taken to apply camouflage to P-40s on the production line. The colours used were taken from Specification 14057-C, issued in December 1939, and were Dark Olive Drab 31 on the uppersurfaces and Neutral Gray 32 on the undersurfaces.

All national and other markings remained the same for a short time, but in May 1940 the GHQ designators were revised and their colouring was specified to be black on a light background and Yellow, (Shade No. 4), on a dark background. This led to P-40s having the designators on both sides of the fin and the uppersurface of the port mainplane applied in Yellow No. 4 from Spec 3-1, apparently disregarding A-N Orange Yellow. The propeller blades remained in natural metal with four lines of technical

Right: Hawk 81A-2 P-8109, '68' of the 3rd Pursuit Squadron, American Volunteer Group, was based at Rangoon, Burma in 1941. Originally intended for export to Britain, the AVG aircraft were finished in equivalent RAF shades, manufactured by DuPont, of Dark Green 71-013 and Dark Earth 71-009 uppersurfaces with Light Gray 71-021 undersurfaces. Medium blue and white Chinese Nationalist markings were applied above and below the wings.

Below: An unidentified Hawk 81A-2 of the AVG showing the distinctive 'sharkmouth' design on the nose and Chinese Nationalist insignia under the wings.



legend stencilled in black at the roots and the Curtiss Electric logo on the forward face of each blade.

The P-40-CUs which received this initial camouflage scheme had the Neutral Gray undersurfaces swept up the fuselage sides to meet the leading edges of the tailplanes, however, by August 1940, it had been decided that this was of no benefit and in fact compromised the uppersurface camouflage. It was therefore recommended that the practice be abandoned and that the Dark Olive Drab be extended along the rear fuselage under the tailplane.

Camouflage finishes were to be seen on many more aircraft in the future, since in May 1940, President Roosevelt asked the House of Congress to authorise a massive expansion of both the American aircraft industry and armed forces to the tune of building 50,000 aircraft a year. The scale of this request can be judged from the fact that this figure was substantially greater than all the aircraft flying in the United States at that time. Curtiss of course was only one of the beneficiaries of this expansion.

The results of the Army Air Corps camouflage trials were finally promulgated in Air Corps Specification 24114 *Camouflage Finishes for Aircraft*, introduced at the end of October 1940. This Specification heralded a major change in the colour scheme applied to the P-36 and P-40, and also introduced Air Corps Bulletin No. 41 *Colour Card for Camouflage Finishes* which promulgated

This was an early-delivery P-40E, 40-422, assigned to the 79th PS, 20th PG, based at Hamilton Field California in 1941. Production aircraft were now finished in Bulletin 41 Dark Olive Drab 41 uppers/Neutral Gray 43 unders, with the national insignia, (still with the red centre) in four positions. Note the 79th PS unit badge in front of the fuselage star/disc.





Here the mainplanes of an AVG Hawk 81 have their uppersurface camouflage scheme applied in the Curtiss paint shop. Note the use of pre-cut masks, resulting in fairly sharp colour demarcations.

the new matt colours for permanent camouflage paints.

The Bulletin 41 colours were:

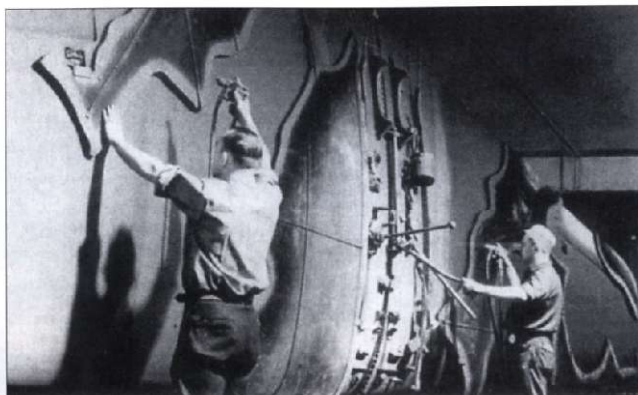
- Dark Olive Drab No. 41
- Medium Green No. 42
- Neutral Gray No. 43
- Black No. 44
- Insignia Red No. 45
- Insignia White No. 46
- Insignia Blue No. 47
- Identification Yellow No. 48

The camouflage scheme specified at this time was Dark Olive Drab 41 on the uppersurfaces and Neutral Gray 43 on the undersurfaces, with the Dark Olive Drab on the rear fuselage sides extended under the tailplanes. Where the upper and undersurfaces met, there was not to be a hard demarcation, but a soft one, with the two colours blending into one another.

At the same time as these new camouflage colours were introduced, the national marking requirements also changed. A 'star in a disc' marking, with a red centre spot, was now to be carried on the uppersurface of the port wing and on the undersurface of the starboard wing. The national insignia was also to be carried on both sides of the fuselage, to be positioned half way between the trailing edge of the mainplanes and the leading edge of the tailplanes. The rudder stripes were deleted. The colours used in the national markings were to be Insignia Red, White and Blue from Bulletin 41.

Other markings, such as aircraft designators and squadron and flight command stripes remained essentially unchanged. The only major change lay in the legend 'U.S. ARMY' which was still to be applied across the undersurface of the mainplanes, but instead of being black, as on earlier P-40s, was now to be applied in Insignia Blue 47.

These appear to be the markings carried by the P-40Bs when they were delivered to the USAAF between January and April 1941. The Army allocated these aircraft the serial numbers 41-5205/5324, and 41-13297/13327. These aircraft were followed down the production line by the P-40C, which had a revised fuel system and was plumbed to carry a centrally-mounted underfuselage drop tank. The P-40Cs were allocated the



P-40C 41-13426 of the 33rd FS, 8th FG, was based in Iceland circa late 1941. Note the Radio Call Number across the fin and rudder, introduced in October 1941, probably in Identification Yellow 48, and the overpainted red centre to the star and disc national marking on the fuselage.

serials 41-13328/13520 and were delivered between March and May 1941. The P-40C appears to have been camouflaged and marked on the production line identically to the P-40B.

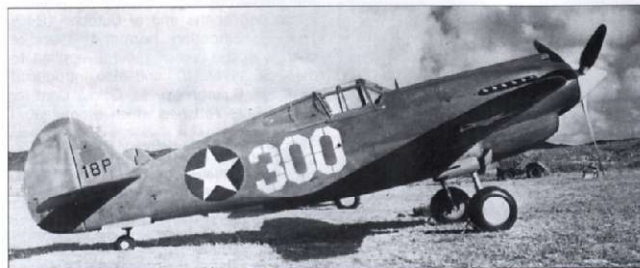
In-service markings underwent a change during April 1941, when the colour of the aircraft designators on camouflaged aircraft were changed from Yellow No. 4 to Black No. 44 on the uppersurfaces, and from black to Insignia Blue 47 on the undersurfaces. During May 1941, instructions were given that propeller blades and hubs were to be camouflaged using Bulletin 41 Shade No. 44 Black. In addition, 4-in wide yellow tips were added from August

1941 using Bulletin 41 Shade No. 48 Identification Yellow.

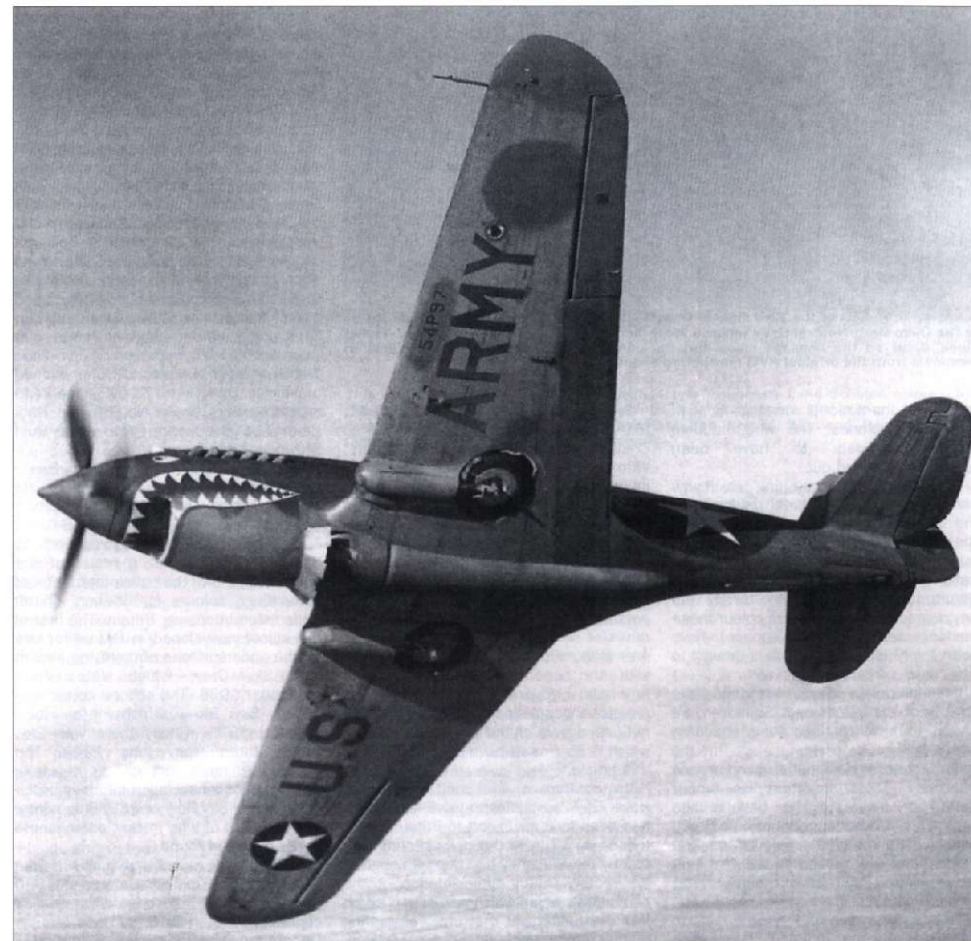
With the introduction of the black finish to the propeller blades, the four lines of stencilled technical legend appear to have been printed in white on a black decal and then applied in the usual place. Close-up photographs of P-40s under construction show that the black of the decal appears to have been slightly darker in hue to the black paint used on the propeller blades, and the small rectangular decals can often be clearly seen. The Curtiss Electric logo continued to be applied in the usual place. Later production aircraft appear to have the technical legend stencilled directly onto the propeller blade, again in white.

The P-40B was the first version of the Hawk family to serve overseas, when it was supplied to the squadrons of the 15th and 18th Pursuit Groups based at Wheeler Field, Hawaii, and the 20th

This P-40C of the 78th PS, 15th PG was based at Bellows Field, Hawaii, at the time of the Pearl Harbor attack on 7 December 1941. Finished in the Olive Drab/Neutral Gray scheme, this machine displays a variety of standards including GHQ designator on the fin, painted-out red centres on the fuselage national insignia, but remaining on the underside marking, and large white fuselage numerals.



## Curtiss P-36 and P-40 in Pre-war US service



Pursuit Squadron of the 24th Pursuit Group at Clark Field, Philippines. Deliveries of the P-40C allowed other overseas units of what, on 20 June 1940, had become the United States Army Air Force (USAAF), to equip with the type.

In August 1941, the original P-40 unit, the 8th Pursuit Group, deployed its P-40Cs into what might theoretically be described as a 'war zone' when they formed part of the American force which occupied Iceland.

July 1941 saw the USAAF take delivery of the P-40D, of which only 23 were produced, making this type the rarest of any of the 'Warhawk' family. The type was distinguished by a number of new features such as a more powerful engine which led to differences in the shape of the cowl, and the deletion of the two nose-mounted machine-guns. To rectify this loss in firepower, the four wing guns were increased to 0.5-in calibre. The other noticeable change was in the cockpit structure, which was modified to increase

visibility. After the 23 P-40Ds, (which were allocated the serial numbers 40-359/360; and 40-362/381), production switched to the P-40E which was essentially identical to the P-40D except that the wing armament was increased to six 0.5-in calibre machine-guns.

Deliveries of P-40Es began in August 1941 and continued through to May 1942. The serial numbers allocated to these aircraft were 40-358 followed by 40-382/681, 41-5305/5744 and 41-13521/36953. Up until December 1941, the P-40Es continued to be delivered to the USAAF camouflaged in Dark Olive Drab 41 and Neutral Gray 43, with national markings in four positions and the 'U.S. ARMY' legend in Insignia

Blue under the wings. After December 1941, the USAAF received P-40Es finished in British camouflage schemes, but marked with US national markings.

The P-40Es which served with the 20th Pursuit Group at Hamilton Field, Oakland, California, during the autumn of 1941 were finished in the standard USAAF camouflage of Dark Olive Drab 41 and Neutral Gray 43. These aircraft are of particular interest because they carried temporary markings for exercise purposes. Thought to have been applied circa November 1941, these markings appear to have consisted of two types. The first type was a cross applied directly over the fuselage national marking on both sides of the fuselage, and slightly





A line-up of P-40Es of the 23rd Fighter Group - the 'Flying Tigers' - which appear to be in the Olive Drab/Neutral Gray scheme. Note the Walt Disney Studios-designed 'Flying Tiger' decal on the fuselage sides and the continuation of the white identification numerals from the original AVG numbering sequence.

inboard of the national markings applied to the mainplanes. The wing national markings appear to have been temporarily painted out.

The second type was a 'ring' which was painted around the national markings on the fuselage and once again inboard of the national markings applied to the mainplanes - however, on these P-40s the national markings were not painted out. Unfortunately it is impossible to say with any degree of certainty what colour these markings were. They would appear to have been a very light colour which is thought to have been some shade of yellow.

In addition to these markings, the P-40Es of the 7th Pursuit Squadron are known to have retained their squadron badge on the side of the fuselage and the yellow squadron designation band around the nose. There are then two further points of interest. The first is the application of what appears to be a Group badge in unidentified colours on the rudder, and the second is the fact that these aircraft still have natural metal-finished propeller blades.

This throws open the question as to exactly when the 'painted' finish was introduced to the Curtiss Electric blades, and at what point in the production of the P-40 they began to be used. Photographs of P-40s in service are of little use as a guide, since provision was made in the Order to introduce the new painted finish on natural metal propellers already in service.

#### American Volunteer Group

While some American fighter pilots were flying their P-40s in mock combat in the autumn of 1941, others were preparing to fly their P-40s in action against the Japanese. The American Volunteer Group (AVG), which became immortalised as the 'Flying Tigers', was made up of three squadrons of 'civilian' ex-United States Army, Navy and Marine Corps pilots, flying as part of the Chinese Nationalist Air Force.

The 'Flying Tiger' decal can be seen on the fuselage side of this 23rd FG P-40E, which appears to be in a two-tone uppersurface scheme possibly consisting of Specification 14057 Dark Green 30 and Rust Brown 34.

Ever since the Boxer Rebellion in 1901, the United States had kept forces in China to protect American interests there. With the onset of the Sino-Japanese war in July 1937, a string of incidents where American interests were attacked by the Japanese did much to inflame American public opinion, leading to widespread public support for China.

This American support for China was reflected in the recruitment of US personnel for the AVG from among the ranks of serving and recently discharged American military pilots and ground staff, with the unofficial blessing of the American government. Indeed, the American people came to consider the AVG as a part of the US armed forces, which is its aircraft have been included in this article.

Its equipment consisted of Curtiss Hawk 81-A2s, similar to the P-40C which had been built for export to Britain. Since these aircraft were originally intended for use by the RAF, they had been finished at the factory in an approximation of the camouflage finish which was in service on RAF day fighters at that time, consisting of the Temperate Land Scheme of Dark Green and Dark Earth on the uppersurfaces with Sky undersurfaces. The colours used in the camouflage

scheme applied by Curtiss were subtly different from the RAF colours, however. It would appear that out of the several American paint manufacturing firms which were supplying aircraft paints, dopes, etc., Curtiss bought its finishing materials from DuPont.

At this time DuPont appears to have been manufacturing its own line of matt camouflage colours of which two, Dark Green 71-013, and Dark Earth 71-009 are said to have been applied to the uppersurfaces of Tomahawks built for Britain. Colour photographs appear to show these colours as being not unlike those of Specification 14057-C which had been issued as the Standard for Temporary Camouflage Paints in December 1939, superseding the Spec 14057-B issue of March 1938 mentioned previously. Dark Green 71-013 appears to resemble Dark Green No. 30 and Dark Earth 71-009 appears to resemble Rust Brown No. 34.

The undersurfaces, which were supposed to be Sky were, however, a light grey - possibly Light Gray 71-021 which has been described as 'Sky Type S Gray'. This confusing terminology appears to have come about as a result of the chronology of the development of camouflage colours for use on aircraft undersides in pre-war Britain. The first of the colours developed in Britain for use on the undersurfaces of day-flying aircraft was Sky Grey, which dates from December 1936. The second colour was called Sky Blue, which dates from February 1939. Finally there was Sky, which dates from June 1940. The American aircraft industry as a whole would probably have been informed of the existence of Sky Grey and Sky Blue before the outbreak of war, in that order, and a near equivalent found.

However, the advent of a new colour just called Sky in the summer of 1940 appears to have caused a great deal of confusion - even in Britain. As late as December 1940, at least one RAF Maintenance Unit in Britain was apparently unaware of the existence of Sky, and issued Sky Blue in its place. It is

therefore not unreasonable to suppose that a similar communication problem might have existed in America from the summer of 1940 onwards, when Britain began to ask for the undersurfaces of day flying aircraft to be finished in Sky. The American industry's response, not just that of Curtiss, appears to have been to apply its equivalent colours of either Sky Grey or Sky Blue to the undersurfaces of aircraft being manufactured for Britain.

If Curtiss finished the Tomahawks supplied to the AVG with the DuPont equivalent of Sky Grey, this would explain why these aircraft are reported to have been light grey underneath. The question remains as to exactly what shade of grey this might have been. A 'best guess' at something like F.S.595B 36463 which is the closest F.S. match for the original RAF Sky Grey.

These colours were applied to the aircraft in a pattern which was essentially the same as the standard British 'B' scheme pattern. To explain, when British aircraft camouflage was being developed during the 1930s, the Royal Aircraft Establishment at Farnborough devised two standard disruptive patterns for each class of aircraft, one being called the 'A' Scheme and the other, the 'B' Scheme - in effect mirror images of each other. In order to simplify production, in early 1941, the Ministry of Aircraft Production requested British manufacturers to apply just one of these schemes. Most British manufacturers opted for the 'A' Scheme.

It would seem however that Curtiss opted for the 'B' Scheme, since this is the pattern which appears in many photographs of P-40s of all Marks, wearing British-style camouflage, which were manufactured from 1941 onwards. Photographs taken at the Curtiss plant which show the RAF-style disruptive pattern being sprayed on to the wings of a P-40, show pre-cut masks being used. This would almost certainly have led to the resulting pattern having 'sharp' edges to the colour demarcation, and every aircraft being finished in a virtually identical pattern.

The crated Tomahawks which were being supplied to the AVG had been shipped to Rangoon from May 1941 onwards, and from August through to November they were assembled and ferried to the AVG training airfield at Toungoo. During assembly, the Tomahawks were given an AVG serial number on the fin in small white characters prefixed with the letter 'P' (for Pursuit?). The serials themselves ranged between 8100 and 8200. After arriving at Toungoo, white identification numbers were added to the rear fuselage and repeated in a smaller size on the nose.

Initially the three AVG squadrons each used different ranges of these white identification numbers; the first squadron using 1-33; the second squadron using 34-67, and the third squadron 68-99. Until mid-November 1941, these were the only markings carried by the aircraft, all the British national markings originally applied at the Curtiss factory having been



This is a fine example of a P-40E in British-style Temperate Land Scheme colours, but using US-manufactured equivalent paints. In this instance the colours consist of Specification 14057 Sand 26, (or possibly Red Brown 34), and Dark Green 30 uppersurfaces over Light Blue 27 undersides.

painted out. It was therefore during the last two weeks of November that Chinese national markings, squadron insignia, and the well known 'sharkmouths' were applied to the aircraft. The Chinese national markings were applied outboard of the painted-out RAF markings on the wings in the usual Chinese medium blue and white.

The squadron markings consisted of a single vertical band around the rear fuselage applied in white for the first squadron, medium blue for the second squadron, and red for the third squadron. In addition to this, each squadron had a nickname and its own 'badge'.

The first squadron was the 'Adam and Eves', its badge taking the form of a green apple entwined with a black snake and placed on the fuselage near the trailing edge of the mainplanes.

The second squadron was the 'Panda Bears', its badge, not surprisingly, being a Panda Bear. It is thought that comparatively few aircraft of the second squadron carried any variation of this marking because the pilots were largely drawn from the US Navy which traditionally frowned upon this sort of marking being applied to aircraft.

The third squadron was known as 'Hell's Angels', after a film about World War I aerial warfare, and its badge consisted of an angel, applied in red and white. It would appear that the angel was different on every aircraft. Besides this marking, the third squadron also carried a 'pinwheel' design on the wheel hubs which was handed for port and starboard in the three squadron colours.

It is thought that the sharkmouth marking was inspired by the Tigershark, which is presumably the origin of the AVG nickname 'The Flying Tigers' which was coined by a newspaper article published in China sometime around the end of January 1942. The sharkmouth could vary from one aircraft to another, but the most common design is said to have featured black lips, white teeth, a red tongue, and eyes made up of a white teardrop on

which was superimposed a red disk to serve as the pupil.

#### Radio Call Numbers

While the AVG was preparing its Tomahawks for combat, in October 1941 the USAAF dropped its long standing Aircraft Designator numbers and replaced them with Radio Call Numbers at the suggestion of the Air Corps Inspection Division. The Radio Call Number was made up of the last two digits of the fiscal year in which the aircraft was paid for, followed by the aircraft's serial number. Often, however, only the last digit of the year and the serial number, or even only the serial number was applied. On camouflaged aircraft such as the P-40, Black 44, or identification Yellow 48, from Bulletin 41, was to be used. This was the final alteration made to USAAF aircraft markings prior to the Japanese attack on Pearl Harbor.

December 1941 saw Curtiss begin to deliver the first P-40E-1s to a USAAF order which was intended to be delivered to Britain under Lend-Lease. These were almost identical to the initial production P-40E except for provision for bombs to be carried underneath the wings. Because they were intended for delivery to Britain, all the P-40E-1s received British-style camouflage.

Once again the uppersurfaces appear to have been finished in the green and brown colours which appear to resemble Dark Green No. 30 and Rust Brown No. 34. However, these aircraft appear to have had their undersurfaces and spinners finished in a light blue colour, which might have been Spec 14057-C Light Blue 27. Allocated the USAAF serial numbers 41-24766/2519 and 41-35874/36953, the P-40E-1s were delivered between December 1941 and May 1942. Many of these aircraft did go to Britain as originally planned, but others saw service with the USAAF, as their delivery to Britain was overtaken by events in the Far East.

H. C. Bridgwater





# Curtiss P-36 and P-40 drawings by Jon Freeman

|                                |                          |                    |                     |                    |                    |                      |
|--------------------------------|--------------------------|--------------------|---------------------|--------------------|--------------------|----------------------|
| Light Blue 23                  | Blue (Flag Colour) 24    | Sand 26            | Light Blue 27       | Sea Green 28       | Dark Blue 29       | Dark Green 30        |
| Dark Olive Drab 31             | Neutral Gray 32          | Rust Brown 34      | Light Olive Drab 36 | Dark Olive Drab 41 | Medium Green 42    | Neutral Gray 43      |
| Black 44                       | Insignia Red 45          | Insignia White 46  | Insignia Blue 47    | Du Pont Dark Earth | Du Pont Azure Blue | Du Pont Middle Stone |
| Du Pont Middle Stone Variation | USN Light Gray           | A-N Aircraft Cream | A-N True Blue       | Sand No. 3         | Dark Green 71-013  | Dark Earth 71-009    |
| Light Gray 71-021              | ANA International Orange | Green              | Gold                | Natural Aluminium  | ANA 602 Light Gray | ANA 603 Sea Gray     |

**Curtiss P-36A 'PA 91', 94th Pursuit Squadron, 1st Pursuit Group, 1940**

Overall natural metal finish with matt Bronze Green anti-glare panel. GHQ Designator 'PA 91' on both sides of the fin and above and below the port wing, plus numeral '91' on the cowlings sides. Sioux Indian warrior's head Squadron motif on fuselage sides. Star in a disc coarctates with red centres above and below both mainplanes, and the rudder has the pre-war red/white and blue recognition stripes. 'U.S. ARMY' in black underneath the mainplanes. Note the red cowl ring and Flight Leader's diagonal red band on the rear fuselage.



**Curtiss P-36A 'PR 1', 18th Pursuit Squadron, 1st Pursuit Group, 1940**

Overall natural metal finish. GHQ Designator 'PR 1' on both sides of the fin and above and below the port wing. 18th Pursuit Squadron crest on the fuselage sides. Star in a disc coarctates with red centres above and below both mainplanes and the rudder has the pre-war red/white and blue recognition stripes. 'U.S. ARMY' in black underneath the mainplanes. The rear fuselage and engine cowlings are painted with the Squadron Commander's blue, yellow and red command stripes which appears to be a gold rear fuselage and cowlings background colour.



**Curtiss P-36A 'PT 30', 79th Pursuit Squadron, 20th Pursuit Group, 1940**

Overall natural metal finish. GHQ Designator 'PT 30' above and below the port wing. 79th Pursuit Squadron crest on the fuselage sides. Star in a disc coarctates with red centres above and below both mainplanes and the rudder has the pre-war red/white and blue recognition stripes. 'U.S. ARMY' in black underneath the mainplanes. Yellow cowlings and Flight leader's diagonal yellow band on the rear fuselage.



**Curtiss P-36A 'PT 98', 55th Pursuit Squadron, 20th Pursuit Group, 1940**

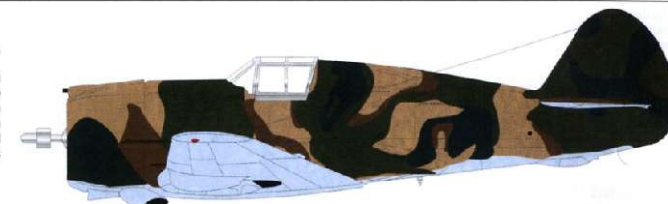
Overall natural metal finish. GHQ Designator 'PT 98' above and below the port wing. 55th Pursuit Squadron crest on the fuselage sides. Star in a disc coarctates with red centres above and below both mainplanes and the rudder has the pre-war red/white and blue recognition stripes. 'U.S. ARMY' in black underneath the mainplanes. Blue cowlings and black Flight leader's diagonal band on the rear fuselage.



## Curtiss P-36 and P-40 in Pre-war US service

**Curtiss XP-36D, Bolling Field Exposition, January 1940**

This XP-36D was painted in the Specification 14057-B water-based temporary camouflage paint of Sand 26, Olive Drab 31, Dark Green 30 and Rust Brown 34, with an unknown shade of light blue on the underside and unpainted cockpit framing. No other markings were carried.

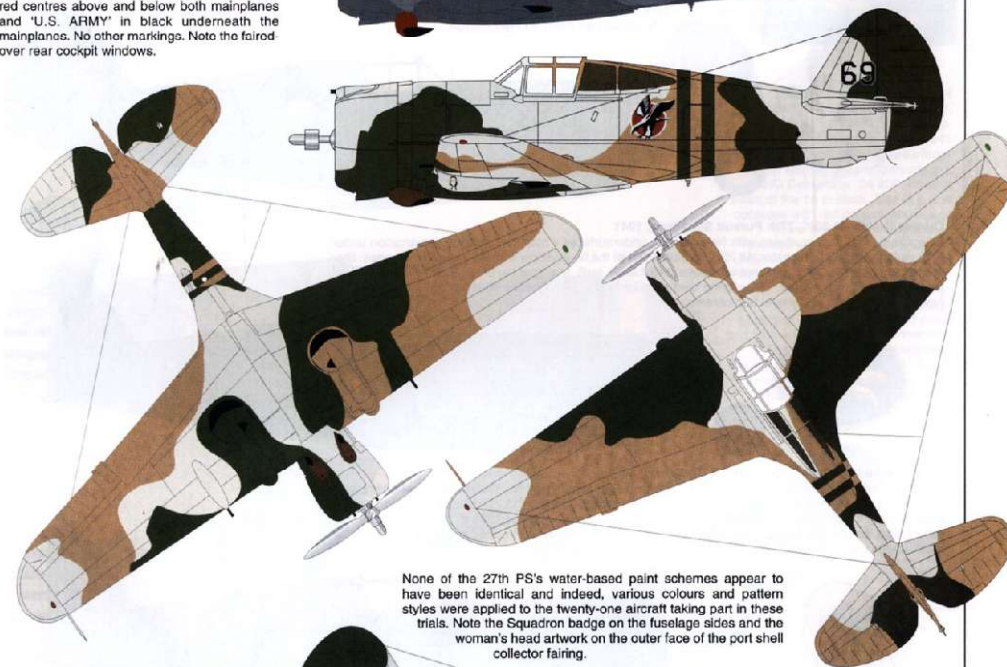
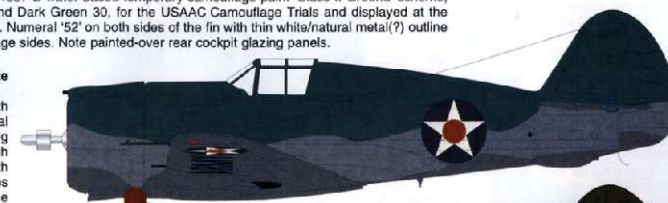


**Curtiss P-36A '52', 27th Pursuit Squadron, Selfridge Field, 1939**

This P-36A was painted in the Specification 14057-B water-based temporary camouflage paint 'Class II Ground' scheme, of White 25, Sand 26, Dark Olive Drab 31 and Dark Green 30, for the USAAC Camouflage Trials and displayed at the National Air Races at Cleveland, Ohio in 1939. Numeral '52' on both sides of the fin with thin white/natural metal(?) outline and 27th Pursuit Squadron crest on the fuselage sides. Note painted-over rear cockpit glazing panels.

**Curtiss P-36C, unknown Group, circa late 1940**

Possibly Dark Blue 29 over Neutral Gray 43 with an application of a lighter gray shade, (Neutral Gray 33?) along the fuselage sides separating the two and producing the effect of a very high demarcation line. Star in a disc coarctates with red centres above and below both mainplanes and 'U.S. ARMY' in black underneath the mainplane. No other markings. Note the faded over rear cockpit windows.



None of the 27th PS's water-based paint schemes appear to have been identical and indeed, various colours and pattern styles were applied to the twenty-one aircraft taking part in these trials. Note the Squadron badge on the fuselage sides and the woman's head artwork on the outer face of the port shell collector fairing.

**Curtiss P-36C '69', 27th Pursuit Squadron, 1st Pursuit Group, July 1939**

This P-36C took part in the camouflage trials held at the National Air Races, Cleveland, Ohio in 1939. The aircraft appeared in Specification 14057-B water-based temporary camouflage paint. This particular three-colour scheme consisted of White 25, Sand 26 and either Dark Green 30 or Dark Olive Drab 31.





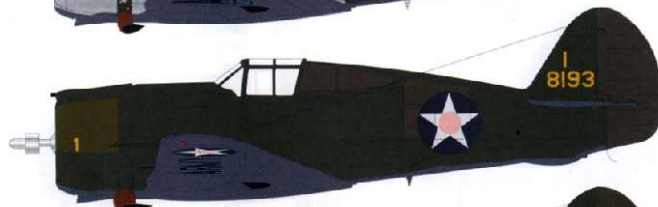
Curtiss P-36A '27 23MM', 23rd Composite Group, Maxwell Field, Montgomery, Alabama, 1940

Dark Olive Drab upper surfaces over Neutral Gray undersurfaces applied directly over the original natural metal finish. A considerable amount of paint chipping is apparent on this aircraft, exposing the natural metal finish of much of the cowl and forward fuselage. GHQ Designator '27 23MM' on both sides of the fin and above and below the port wing. Star in a disc cocardes with red centres above and below both mainplanes and the rudder has the pre-war red/white and blue recognition stripes. 'U.S. ARMY' in black underneath the mainplanes.



Curtiss P-36C '18193', unknown Group, circa 1940/41

Dark Olive Drab upper surfaces over Neutral Gray undersurfaces. GHQ Designator or Radio Call Number '18193' on both sides of the fin in yellow. Yellow numeral '1' on cowl. Star in a disc cocardes with faded/overpainted (?) red centres above and below both mainplanes and the fuselage sides. No other markings appear to have been carried.



Curtiss P-40-CU '17 35P', 33rd Pursuit Squadron, 1941

Dark Olive Drab upper surfaces with Neutral Gray undersurfaces – note the demarcation sweeping up to the leading edge of the tailplanes – a feature of initial production P-40-CUs. GHQ Designator '17 35P' on both sides of the fin in black. Star in a disc cocardes still with red centres above the port wing and below the starboard wing, and on the fuselage sides. Red/white and blue rudder stripes freshly overpainted in Olive Drab. 'U.S. ARMY' in black underneath the mainplanes. This P-40 has two white stripes on the rear fuselage signifying that it was assigned to a Squadron Commander. National insignia was now regularly being placed on the fuselage sides where the squadron badges had once been placed. Note white nose band and red spinner.



Curtiss P-40B '48 20P', 77th Pursuit Squadron, 1941

Dark Olive Drab upper surfaces with Neutral Gray undersurfaces – note the 'straight' demarcation under the tailplanes. GHQ Designator '48 20P' on both sides of the fin in yellow with '48' repeated on nose. Star in a disc cocardes with red centres above and below both mainplanes only. 'U.S. ARMY' in black underneath the mainplanes. The playing card emblem of the 77th Pursuit Squadron on fuselage sides. Note yellow spinner and wheel hub centres.



Curtiss P-40-CU '21 8P', 35th Pursuit Squadron, 1941

Dark Olive Drab upper surfaces with Neutral Gray undersurfaces – note the demarcation sweeping up to the leading edge of the tailplanes – a feature of initial production P-40-CUs. GHQ Designator '21 8P' on both sides of the fin in yellow. 35th PS emblem retained on fuselage sides. Star in a disc cocardes with red centres above and below both mainplanes and red/white and blue rudder stripes. 'U.S. ARMY' in black underneath the mainplanes. Note red spinner and wheel hub centres.

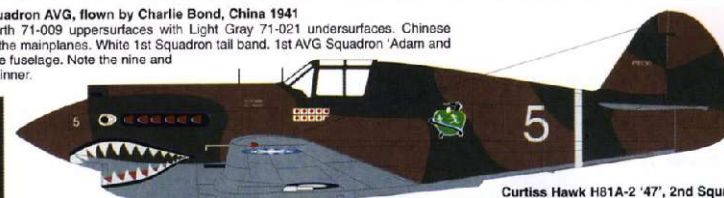
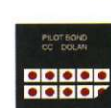


Curtiss P-40-CU '80 8P', 36th Pursuit Squadron, 1941

Dark Olive Drab upper surfaces with Neutral Gray undersurfaces – note the demarcation sweeping up to the leading edge of the tailplanes. GHQ Designator '80 8P' on both sides of the fin in yellow. 36th PS emblem retained on fuselage sides. Star in a disc cocardes with red centres above and below both mainplanes and red/white/blue rudder stripes. 'U.S. ARMY' in black underneath the mainplanes. Note yellow spinner and the two vertical stripes on the rear fuselage indicating a Squadron Commander's aircraft.

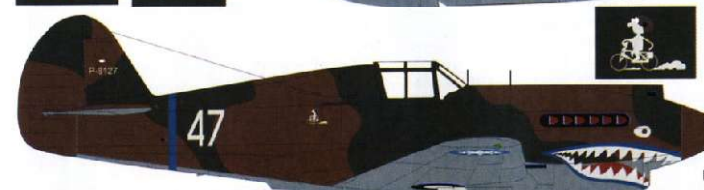
Curtiss Hawk H81A-2 '5', 1st Squadron AVG, flown by Charlie Bond, China 1941

Dark Green 71-013 and Dark Earth 71-009 upper surfaces with Light Gray 71-021 undersurfaces. Chinese national insignia above and below the mainplanes. White 1st Squadron tail band. 1st AVG Squadron 'Adam and Eve's forbidden fruit' emblem on the fuselage. Note the nine and a half 'kill' markings. Dark Earth spinner.



Curtiss Hawk H81A-2 '47', 2nd Squadron AVG, flown by Robert Layher and John Petach, China 1941

Dark Green 71-013 and Dark Earth 71-009 upper surfaces with Light Gray 71-021 undersurfaces. Chinese national insignia above and below the mainplanes. Blue 2nd Squadron tail band and small cyclist cartoon on the fuselage side just aft of the cockpit. Note the blue trim to the sharkmouth. This Hawk 81 was later transferred to the 3rd Pursuit Squadron where the fuselage band was re-painted red and the 'Hell's Angels' insignia applied to the port fuselage side.



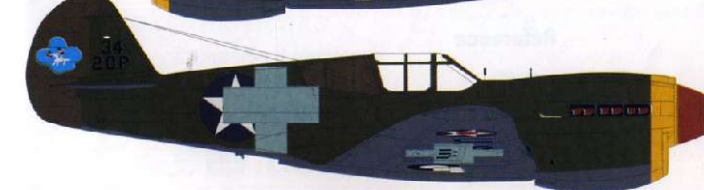
Curtiss Hawk H81A-2 '77', 3rd Squadron AVG, flown by Robert T. Smith, Rangoon, Burma 1941

Dark Green 71-013 and Dark Earth 71-009 upper surfaces with Light Gray 71-021 undersurfaces. Chinese national insignia above and below the mainplanes. Red 3rd Squadron tail band and 'flying tiger' decal on fuselage. 'Hell's Angels' artwork and the five 'kill' markings beneath cockpit that Robert Smith claimed in '77' while with the AVG. Note the Dark Green spinner cap.



Curtiss P-40E Warhawk '34 20P', 79th Pursuit Squadron, 20th Pursuit Group, wargames exercises, 1941

Dark Olive Drab upper surfaces with Neutral Gray undersurfaces. GHQ Designator '34 20P' on both sides of the fin in black. Star in a disc cocardes with red centres above and below both mainplanes and on fuselage sides. 'U.S. ARMY' legend underneath the mainplanes. 20th PG insignia on the rudder. Note how the temporary wargame cross markings are applied over the fuselage cocardes. Yellow band around nose, and blue spinner with red spinner cap. The hand-painted crosses were roughly applied. Note also the inboard positions of the wing upper surface national insignia compared to the undersurface ones.





## Curtiss P-36 and P-40 Kit, accessory & reference list

### Kits

| Scale | Manufacturer  | Subject                       | Status                       |
|-------|---------------|-------------------------------|------------------------------|
| 1:72  | SMER          | Curtiss P-36                  | Available                    |
| 1:72  | Special Hobby | Curtiss P-36A                 | Future release               |
| 1:48  | Academy       | Curtiss P-36C                 | Available                    |
| 1:72  | Academy       | Curtiss P-40B                 | Available                    |
| 1:72  | Academy       | Curtiss P-40E                 | Available                    |
| 1:72  | Airfix        | Curtiss P-40E Warhawk Mk I    | Available                    |
| 1:72  | AML           | Curtiss P-40 Tomahawk Mk I    | Available                    |
| 1:72  | AML           | Curtiss P-40B Tomahawk Mk IIA | Available                    |
| 1:72  | AML           | Curtiss P-40C Tomahawk Mk IIB | Available                    |
| 1:72  | Hasegawa      | Curtiss P-40E                 | Available, multiple releases |
| 1:72  | Pavla         | Curtiss 81A Hawk              | Available                    |
| 1:48  | Academy       | Curtiss P-40C Tomahawk        | Available                    |
| 1:48  | Amtech        | Curtiss P-40E Warhawk         | Future release               |
| 1:48  | Amtech        | Curtiss P-40E                 | Available                    |
| 1:48  | Hobbycraft    | Curtiss P-40 Tomahawk Mk I    | Available                    |
| 1:48  | Revell        | Curtiss P-40E Warhawk         | Available                    |
| 1:48  | Trumpeter     | Curtiss P-40B Warhawk         | Future release               |
| 1:32  | Trumpeter     | Curtiss P-40B Warhawk         | Future release               |

### Accessories

| Scale | Manufacturer | Subject | Item description              | Status      |
|-------|--------------|---------|-------------------------------|-------------|
| 1:72  | Czech Master | P-40E   | Cockpit set, for Hasegawa kit | Available   |
| 1:72  | True Details | P-40E/N | Cockpit set                   | Available   |
| 1:48  | AML          | P-40B/C | Cockpit set                   | New release |
| 1:48  | Cutting Edge | P-40B/C | Cockpit set                   | Available   |
| 1:48  | Cutting Edge | P-40E   | Cockpit set, for AMTech kit   | Available   |
| 1:48  | True details | P-40B/C | Detail set                    | Available   |

### Reference

| Publisher                | Title                                                                                  |
|--------------------------|----------------------------------------------------------------------------------------|
| Aerospace Publishing Ltd | Wings of Fame, Volume 9                                                                |
| Guideline Publications   | Combat Colours Number 3: The Curtiss P-36 and P-40 in USAAC/USAAF service 1939 to 1945 |

## Boeing F-15 Eagle kit list (continued from SAM October, 25/8)

### Kits

| Scale | Manufacturer | Subject             | Status      |
|-------|--------------|---------------------|-------------|
| 1:48  | Revell       | F-15E Strike Eagle  | Available   |
| 1:48  | Tamiya       | F-15C Eagle         | Available   |
| 1:48  | Tamiya       | F-15J Eagle         | Available   |
| 1:32  | Tamiya       | F-15E Bunker Buster | New release |
| 1:32  | Tamiya       | F-15E Strike Eagle  | Available   |
| 1:32  | Tamiya       | F-15C Eagle         | Available   |
| 1:32  | Tamiya       | F-15J Eagle         | Available   |

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# Tiger Meet 2003



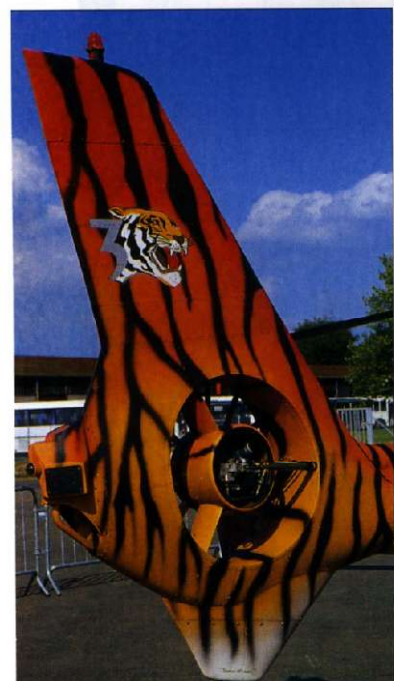
Mark Attrill visited the 2003 Tiger Meet at Cambrai and photographed this selection of spectacular special schemes for SAM.

Right and top: This Luftwaffe Tornado IDS (43+96) from AG61 at Schleswig-Jagel was, without doubt, one of the stars of this year's NATO Tiger Meet, with attractive high-visibility tiger striping along its forward fuselage and drop tanks and some stunning tail art. Note that the aircraft has a reconnaissance pod on its centreline hardpoint. (all Mark Attrill)



Above and right: A star of the static park for the Cambrai Open Day that followed the NATO Tiger Meet was this Dassault-Breguet/Dornier Alpha Jet (7-PJ) from EC 01/007 at Salon-de-Provence. The aircraft received special markings to commemorate the 30th anniversary of the SEPECAT Jaguar A in Armée de l'Air Service, hence the Jaguar motif on its port fin surface. The starboard fin sported a large Jaguar head that fitted in well with the tiger theme.

Left and right: This Aérospatiale SA 342M Gazelle (3964/BWB) from 3 RHC of the Armée de Terre, home based at Etain, surprised many visitors when it arrived towards the end of the NATO Tiger Meet sporting this stunning wrap-around tiger scheme. Note that even the fenestron shroud has been striped.



Above: A close-up of the tail markings applied to the JaBoG 321 Tornado ECR 46+54.

Above left: JaBoG 321, home based at Lechfeld in Bavaria, decorated one of its Tornado ECRs in time for NATO Tiger Meet 2003. Its 'flagship' (46+54) sported this all-black colour scheme, with tiger stripes and a large HARM missile motif on the forward fuselage. The fuselage painting is so accurate that at first glance the aircraft appears to have an over-size HARM on a trolley beside it. Note the underfuselage HARM installation.

Top: Due to the nature of their shipborne operations, the Dassault Super Etendards of 11 Flotille, Aéronavale are not able to attend every NATO Tiger Meet. After a 5 year absence they did, however, make a very welcome return to Cambrai for NATO Tiger Meet 2003. All of the participating aircraft carried some form of tiger markings. The most stunning was '38', which sported tiger stripes on its fin, fuselage spine and the leading edges of its mainplanes, which all contrasted nicely with the standard camouflage scheme.







Above left and right, and top: No. 31 'Tiger' Squadron of the Belgian Air Component of the Belgian Armed Forces can always be relied upon to produce some stunning Tiger Meet tail art on one of its F-16AMs. 2003 was no exception and FA-93 was duly decorated with different motifs on either side of its fin. Note too that the ventral fins received No. 31 'Tiger' Squadron titles over tiger stripes. Port and starboard views of the fin are shown.



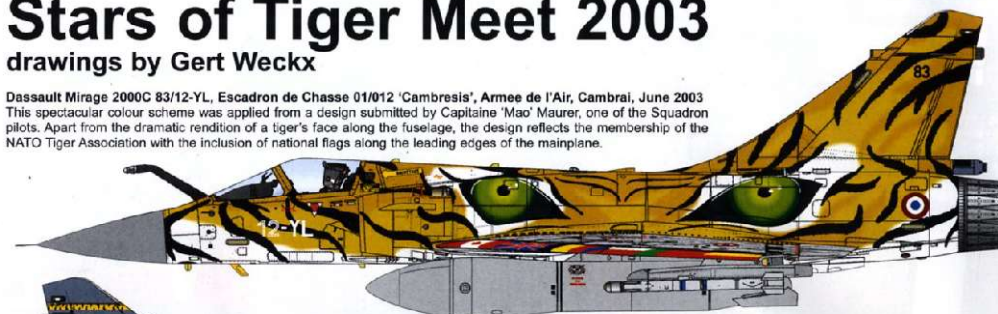
Left and above: EC 05/330 from the Centre d'Experiences Aeriennes Militaires (CEAM) at Mont-de-Marsan, has become a regular participant at the NATO Tiger Meet. This year it deployed a trio of Mirage 2000-5s, including 330-AX/77, which wore some high-visibility black and yellow tiger-stripping along its fuselage spine, the leading edge of its fin and on its drop tanks, to complement the 'standard' tiger markings that appear on the fins of all the unit's Mirage 2000 aircraft.



## Stars of Tiger Meet 2003

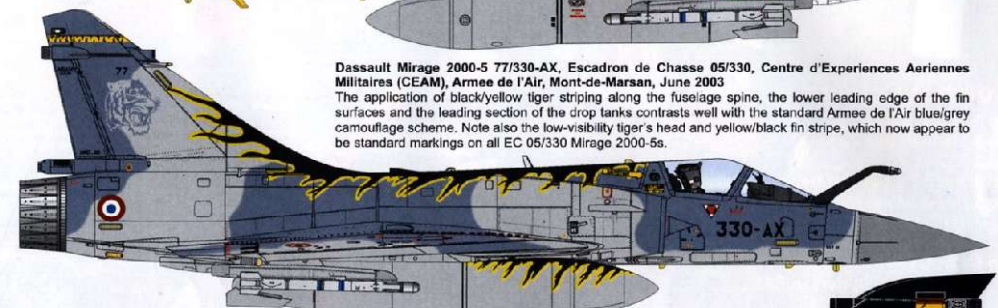
drawings by Gert Weckx

Dassault Mirage 2000C 83/12-YL, Escadron de Chasse 01/012 'Cambresis', Armee de l'Air, Cambrai, June 2003  
This spectacular colour scheme was applied from a design submitted by Capitaine 'Mao' Maurer, one of the Squadron pilots. Apart from the dramatic rendition of a tiger's face along the fuselage, the design reflects the membership of the NATO Tiger Association with the inclusion of national flags along the leading edges of the mainplane.



Dassault Mirage 2000-5 77/330-AX, Escadron de Chasse 05/330, Centre d'Experiences Aeriennes Militaires (CEAM), Armee de l'Air, Mont-de-Marsan, June 2003

The application of black/yellow tiger striping along the fuselage spine, the lower leading edge of the fin surfaces and the leading section of the drop tanks contrasts well with the standard Armee de l'Air blue/grey camouflage scheme. Note also the low-visibility tiger's head and yellow/black fin stripe, which now appear to be standard markings on all EC 05/330 Mirage 2000-5s.



Panavia Tornado IDS 43+96, Aufklärungsgeschwader 51, Luftwaffe, Schleswig-Jagel, June 2003  
The standard tactical reconnaissance colour scheme contrasts sharply with the yellow/black striping on the forward fuselage, spine, lower fin leading edge and drop tanks. The tiger's head and red/white '51' markings are presented on an all-black fin. The overall finish is satin.



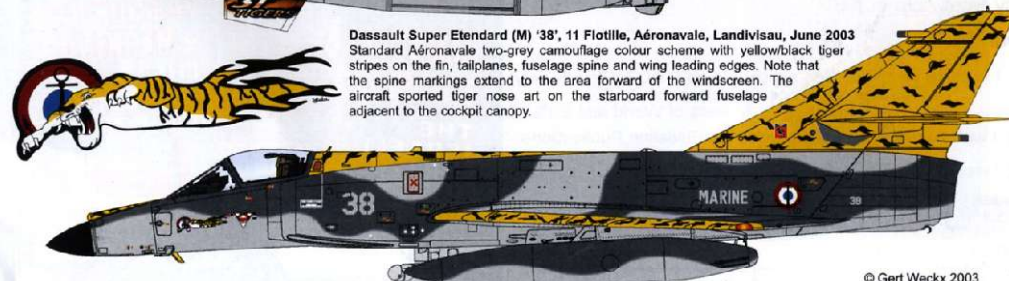
Lockheed Martin F-16A MLU FA-93, No. 31 'Tiger' Squadron, Belgian Composant Aerienne/Luchtcomposant, Kleine Brogel, June 2003

Standard camouflage scheme of Gunship Gray (F.S.36118) and Medium Gray (F.S.36270) upper surfaces with Light Ghost Gray (F.S.36375) under surfaces. Note that the special 'rubber coating' applied to the radome absorbs dirt particles which, as a result, leaves a slightly darker shade of Medium Gray. The fin surfaces wore two different designs based on the tiger theme. Note also the specially marked outer surfaces of the ventral fins.



Dassault Super Etendard (M) '38', 11 Flotille, Aeronavale, Landivisau, June 2003

Standard Aeronavale two-grey camouflage colour scheme with yellow/black tiger stripes on the fin, tailplanes, fuselage spine and wing leading edges. Note that the spine markings extend to the area forward of the windscreens. The aircraft sported tiger nose art on the starboard forward fuselage adjacent to the cockpit canopy.



© Gert Weckx 2003

Left and far left: 192 Filo of the Turkish Air Force, equipped with F-16C/D Fighting Falcons, made a welcome return to NATO Tiger Meet 2003. All the 192 Filo F-16 Fighting Falcons now feature 'standard' tail markings including a tiger-striped fin stripe and low-visibility tiger heads, as seen in this close-up fin shot.



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# RCAF, RAF and FAA aircraft in the 1940s

Colour images from the archive of Jon Bradley



John Bradley completes the current selection of images from his archive. This time he follows his SAM October, 25/8, contribution with some spectacular colour material.

Above: Norseman Mk IV 2485 is seen here at an Open House while in service with No. 8 Repair Depot, located at RCAF Station Winnipeg. Note its ambulance markings and a logo on the nose in the shape of an 8, with 'R' in the top portion and 'D' in the bottom, as well as the red and yellow-painted 'Yin-Yang' wheel hubs. It is interesting to note that the red, white and blue of the logo, mirrors that of the roundels. This Norseman entered RCAF service on 3 May 1941 with No. 3 Bombing and Gunnery School at MacDonald, Manitoba, and was transferred to No. 8 RD on 31 July 1942. 2485 was struck off strength on 13 August 1947.



Bolingbroke Mk IV 9089 was taken on strength on 29 January 1942 and is seen here coded as YQ-X with No. 8 (Bomber Reconnaissance) Squadron located at RCAF Station Sea Island, British Columbia. The aircraft was later transferred to No. 147 (Bomber Reconnaissance) Squadron, also located at Sea Island. This Bolingbroke was struck off strength on 5 September 1946. Note that it was standard practice to underline the codes of the Home War Establishment aircraft of the RCAF up to 16 October 1942. After that date, most codes were withdrawn from use.





Spitfire PR.Mk XI PM133 is shown as it appeared while serving with No. 400 Squadron in April 1945. During the month, the Squadron was deployed into various locations on the continent, B.90 at Petit-Brogel, Belgium, B.108 at Rheine, Germany, B.116 at Wunstorf, Germany and B.154 at Soltau, Germany. It is believed that this photograph was taken at either Rheine or Wunstorf. Note the comprehensive exhaust staining on the PRU Blue paint.

Oxford Mk I X6559 was taken on strength on 17 September 1941. It served with No. 2 Elementary Flying Training School at Fort William, Ontario; No. 35 Service Flying Training School at North Battleford, Saskatchewan; No. 36 SFTS located at Penhold, Alberta, and No. 37 SFTS located at Calgary, Alberta. It was struck off strength on 12 February 1945.



## RCAF, RAF and FAA aircraft in the 1940s



Fairey Battle Mk I 1891 was originally on RAF strength as N2237. It served with that service's No. 19 Maintenance Unit, No. 36 MU, No. 8 MU, No. 88 Squadron, No. 22 MU, No. 18 MU, and No. 47 MU, before being shipped to Canada on 11 March 1941. It was taken on strength by the RCAF on 8 April 1941 at No. 4 Repair Depot at Dartmouth, Nova Scotia, where it was converted as a target tug. It was then sent to No. 31 Service Flying Training School located at Kingston, Ontario. On 5 November 1941 the aircraft suffered an engine failure and made a wheels-up landing on Amherst Island, 4 miles (6 km) south west of Kingston. 1891 was reduced to spares and written off on 12 June 1942.

De Havilland Mosquito B.Mk 25 KB424 represents a conundrum. The serials for the Canadian built KB series Mosquitos stopped at KB420, then started again at KB428. Yet here is KB424 undergoing an engine run-up! Mosquito B.Mk 25 KB428, in the background, was delivered to the RCAF on 14 September 1944 for cold weather trials with No. 1 Winter Experimental and Training Flight at Kapuskasing, Ontario. The aircraft was later converted to an instructional airframe and was serialised as A516 in that role. A516 was then sold off by War Assets on 27 February 1950. John notes that any additional information on KB424 would not only be welcome, but is desperately sought.



Left: Hudson Mk III T9458 was delivered to the RAF between May and June 1941 and served with No. 224 Squadron, No. 206 Squadron, No. 49 Squadron and finally No. 233 Squadron. It went missing while on a patrol with No. 233 Squadron on 9 November 1942. The aircraft is seen here while on its ferry flight, most likely at an unspecified location in Newfoundland.





Unfortunately, very little is known about this wonderful image of Fleet Air Arm aircraft, the original transparency being without a caption. Starting in the foreground, the aircraft present are most likely a Supermarine Seafire F Mk IIC (although it may be a Mk IIB); a Vought Corsair Mk I; a Grumman Wildcat being serviced in the open and another in the hangar to the right; three Sea Hurricanes, one in each of the left side hangars and one outside, head-on with the yellow spinner, which is most likely a Mk IIB; and a pair of Fairey Barracuda Mk IIs. The closest of the latter pair to the camera boasts not only a yellow spinner, but also shark-mouth markings. The combination of what appears to be an 'S' code on the Wildcat, plus the fact that early Barracudas are present, suggests to the editor that this scene might have been captured at St Merryn in the mid-war period, but this is little more than conjecture. Can any readers shed further light on the subject?

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Using photographs of his finished model, as well as his own drawings, Francisco Javier Gil Vidal explains how he produced a Vickers Valiant B.Mk 2 using the Aircraft in Miniature vacform as a basis.



## Valiant B.Mk 2 'The Black Bomber'

### Drawing A

**1, 3 and 5:** Semi-circular bulkheads are made to accept the fin, with slots cut in their upper sections. Slots 1 and 3 are 14 mm deep, slot 5 is 8 mm deep. Bulkheads 1, 3 and 5 have vertical slots to interlock with corresponding slots on the fin locating tabs (7). The slot depths are 7 mm for sections 1 and 3, and 4 mm for section 5.

**2 and 6:** These are openings in the fuselage for the fin tabs.

**4:** Section "D", as provided by Aircraft in Miniature.

**7:** The fin tabs are made from thick card and should be rooted deep inside the fin. They protrude 14 mm (forward), and 8 mm (rear). The forward tab has two 7-mm slots for interlocking with the corresponding slots at bulkheads 1 and 3. The rear tab has one 4-mm slot for section 5.

### Drawing B

**1:** The hatched area indicates the engine section to be cut from each wing.

**2:** The port wing section is shown minus the area indicated at 1. The hatched area is the blanking plate at the rear of the forward engine section. Note the engine fixing stubs attached to the plate.

**3-8:** The engine side blanking plates are shown, to starboard (3, 4) and port (6, 7). All are 1.5 mm thick. The engine tunnel dividing walls are also shown, to starboard (5) and port (8). These walls have double thickness, and should be rounded at their forward end. 6', 7' and 8' show the port blanking plates and dividing wall from the front. Position 9 marks the extent of the engine tunnel shaping.

### Drawing C

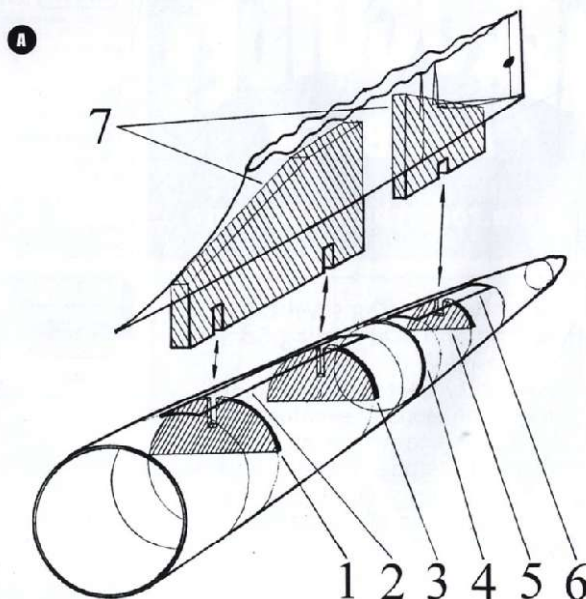
Establishing the correct positioning for the nose wheel well roof. Place the fuselage (1) onto a large secure base (2). Temporarily fix a paper copy of the port undercarriage door (3) in place, allowing it to hang vertically. The nosewheel rotation axis (x) coincides exactly with the lower door edge, and the nosewheel leg retraction axis (y) is 24 mm above this. Mark the x axis level on a

cardboard strip (4). The lower, perspective drawing, shows the fuselage on theoretical pedestals (5). Transfer the x axis level onto a new cardboard strip (6), and mark the y axis level 24 mm above this. Take a third cardboard strip (7), smear one of its corners with paint, and place it perpendicular to strip 6 at y-axis level. Mark the fuselage with small dots. This gives the outside position for the wheel well roof (8), which is 45 mm long and about 42 mm wide. The roof rests against bulkheads 9 and 10.

### Drawing D

This drawing shows the rear control surface hinge covers and vortex generators. An upper elevation of the tailplane is shown,

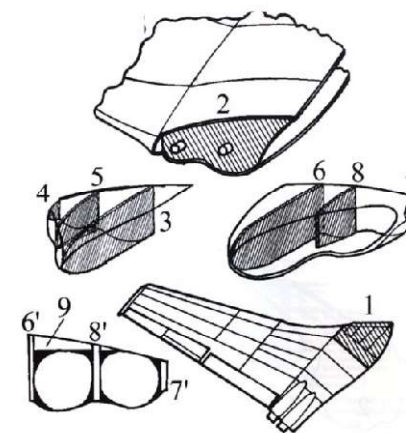
but note that the vortex generators appear on the underside only. The scale is given by the port elevator hinge line AB, which should be 68 mm long. Also note the long elevator trim tab with three hinge covers to port, the starboard one being shorter with only two hinge covers. The rudder trim tab has three hinge covers either side. The inset shows the hinge cover construction: laminate two rice grain-shaped pieces of thin card, with the upper one smaller than the lower, cement them into place and then sand to a rounded shape. Second inset shows the vortex generator construction: mark a deep groove in the flying surface with a steel point, cement a thin card strip into the groove so that it emerges perpendicular to the surface, trim almost



flush and then sand smooth when fully dry. Vortex generators also need to be added to the wing upper surfaces.

### Drawing E

**Wing attachment:** A complex and impracticable maze of formers is suggested by the manufacturer, which provides templates for them all. In the end only formers 'E' (manufacturer's designation, labelled 2 and 2' here) were used, attached to the fuselage to produce a strong wing root. At 1 the starboard fuselage half is seen from the inside. A vertical slot (3) was cut through former 'E' and the fuselage. Vertical locating troughs are made from thin plastic card strips (4 and 5, shown hatched) and secured to circular bulkheads (6, 8 and 9). A spacer plate (7) is sandwiched between formers 6 and 8, leaving a gap coinciding with the vertical slot (3). A thick card bridge (10) joins formers 8 and 9, with a cardboard pad (11) super glued on top. A horizontal slot (12) 5 mm wide is opened through the formers 'E' and the fuselage halves, the lower edge of the slot being flush with the cardboard bridge decking. Thick card strips secure the bridge from below, adjoining the fuselage (13), and circular formers (14). The key to providing a strong wing

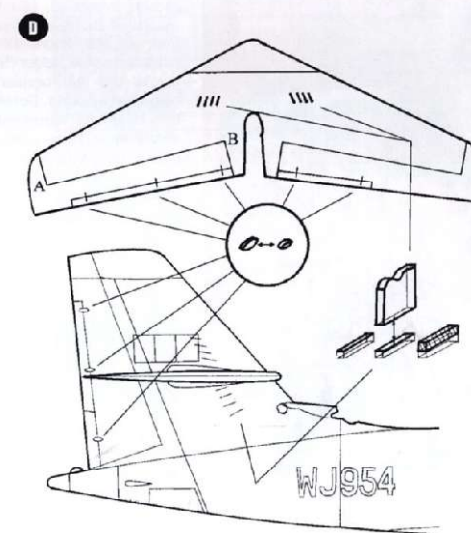
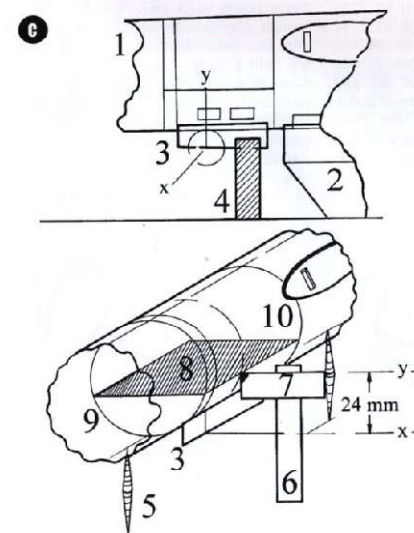


attachment is spar 15, made from aluminium strip 2 mm thick and 31 mm wide. The front view of the spar shows how it is bent to provide for the Valiant's characteristic wing droop. Length AB is about 42 mm, length BC is around 100 mm. The forward corners of the spar are clipped to allow it to pass more deeply into the wing. The spar and the insides of the wing halves (not shown) are lined with coarse cloth. White glue is smeared onto both the lower horizontal part of the spar and the cardboard decking (11, shown hatched in the perspective drawing, just below the spar). The spar is inserted through the slot (12), and aligned, while the gap is closed with a thick plastic card block (16) cemented to the upper edge of the slot in former 'E'. This block should press hard down against the spar. Insert thick card strips (17 and 18) through slots 3 and

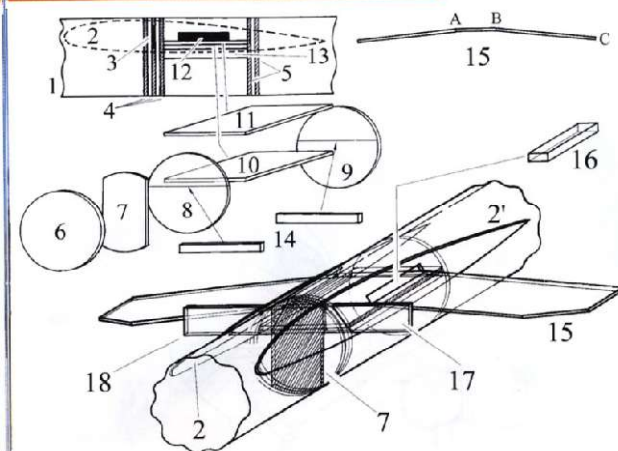
cement them firmly to form a sandwich (6, 7 and 8; spacer 7 is shown hatched in the perspective drawing). Strips 17 and 18 protrude horizontally out of the fuselage and are cemented to the rear of the wing rear engine blanking plate (see Drawing B, 2). The wings (minus the forward engine sections) are white glued to the cloth-covered spar (some cardboard stuffing may be needed), their upper sides fitting on protruding formers 'E'. When everything is fully dry, an immensely strong wing-fuselage join is made. It is now time to add the engine fronts (Drawing F), and the intakes. All gaps should be filled and sanded smooth.

### Drawing F

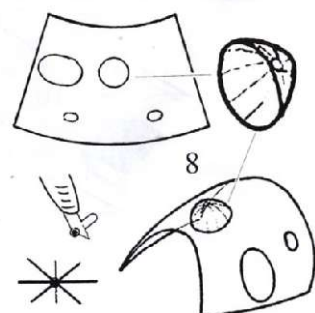
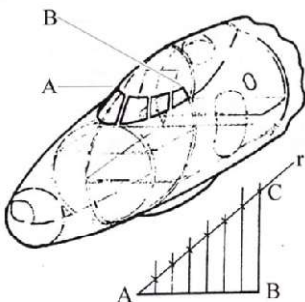
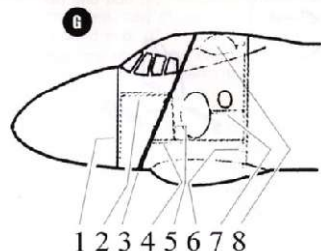
The completed starboard wing root is shown, with the port intakes shown in 'ghost' form to allow views of former 'E' (1)







and the rear engine blanking plate (4) with engine fronts installed. The engine fans are made as follows: cut thin card discs and stick aluminium foil on them, shiny side up. The foil is applied by smearing varnish thinly on both the foil and plastic, allowing a few minutes for it to dry, before pressing the foil firmly onto the plastic and cleaning away any excess varnish. Cut radial slits to simulate the fan blades, fashion spinners from round sprue and stick onto the discs with super glue. Paint the spinners a steel colour. When fully dry, the engine fans can be cemented to the engine-fixing stubs on plate 4. Also visible in Drawing F are the spar slot (2), and spar (3) just protruding out of the 'broken' port wing. The undercarriage pods are not shown for clarity. The port engine intake section is shown detached below the main drawing.



compartment is lined inside with a thin plastic card lining (8; see extreme right). Use aluminium foil to copy the inside shape of the compartment, and establish the door and window positions. Cut out a circular hole in the middle of the lining (8), mould a dome to represent the ditching exit and cement it over the hole. The dome is detailed on the inside with radial ridges, resembling an umbrella. The ridges are constructed as follows: take a piece of round sprue, carve a depression in its centre, and then cut out a thin slice to obtain a delicate ring (see drawing). Lay the ring on a glass plate, then add stretched sprue lengths radially. When thoroughly dry, cement the ring to the inside of the dome. Further detail can be added, all from stretched sprue, including: hand rails, the ditching exit lever, etc. Establish the cockpit windscreen upper line marked AB by means of a thin paper strip lengthed with pencil (see perspective drawing). Unfold the strip and divide it into seven equal parts. The

### Drawing G

**The cockpit and rear crew compartment:** The forward circular former (1) is connected to a raked mid former (3) by means of the cockpit floor (2). Open up a rectangular doorway in 3, as seen in the perspective drawing, and detail the cockpit as desired (white metal seats are provided by AIM, but the cockpit floor supplied is much too long and will need cutting down). The rear circular former (6) is connected to 3 by means of the rear compartment floor (4). Connect the floors (2 and 4) with a stretched-sprue ladder (5). A table (7) runs across the rear circular former (6), just below the windows. Detail the former above the table to represent the rear crew instruments. Three seats (not shown) were made from milk-carton cardboard, which has an ideal dull-metal finish, upon which upholstery can be painted. The whole rear

Francisco Javier Gil Vidal

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# Sikorsky S-61, R/CH-3C, CH-3E/ HH-3E/MH-3E, HH-3F

drawings by Andy Godfrey

CH-3C/S-61R N664Y, Bluebird Airways

Overall gloss white and royal blue. Registration in royal blue on rear fuselage. This aircraft was the prototype of the series and has worn a variety of company and private colour schemes.



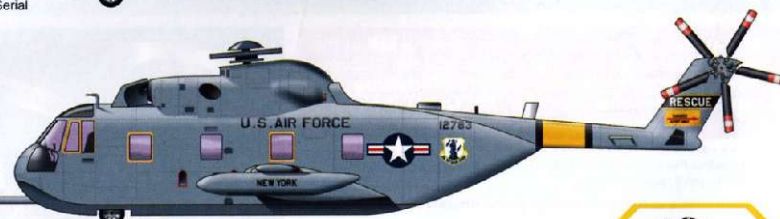
CH-3E serial unknown, unit unknown, USAF, South Vietnam, c.1968

Finished in weathered standard South East Asia scheme of Tan F.S.30219. Green F.S.34102 and Green F.S.34079 upper surfaces and Light Gray F.S.36222 undersides, extending up fuselage sides. Original national markings, USAF titling and serial obliterated by pale green (for clandestine operations?). Full colour star and bars added on fuselage sides off standard position. Auxiliary fuel tanks are natural metal.



CH-3E 67-14718 'LH', 302nd Special Operations Squadron, USAF Reserve, Luke AFB, 1976

Finish standard South East Asia scheme of Tan F.S.30219, Green F.S.34102 and Green F.S.34079 upper surfaces and Light Gray F.S.36222 undersides. Full colour stars and bars on fuselage sides. Serial and all titling in white.



HH-3E 65-12783, 102nd ARRS, New York Air National Guard, Suffolk County Airport, 1977

Overall ADC Gray F.S.36473. Tail band is Yellow F.S.33538 with black outline. Rescue title on tail is white on black band, outlined yellow. Full colour star and bar, serial and titling in black.



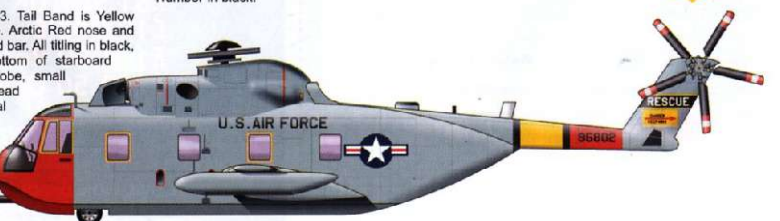
Military Airlift Command serial lozenge (see 69-05802)  
Lozenge is Chrome Yellow, outlined in black. Number in black.

Air National Guard Badge  
Shield and scroll are white, outlined in yellow. Text and detail in Roundel Blue.



HH-3E 69-05802, 71st ARRS, USAF, Elmendorf AB, Alaska, 1984

Overall ADC Gray F.S.36473. Tail Band is Yellow F.S.33538 with black outline. Arctic Red nose and tail stripe. Full colour star and bar. All titling in black, including '71 ARRS' on bottom of starboard loading door. Refuelling probe, small anti-dazzle panel and rotor head fairing are black. MAC serial lozenge on nose.



## Sikorsky S-61, R/CH-3C, CH-3E/HH-3E/MH-3E, HH-3F

HH-3E 67-14717, Det. 14, 67th ARRS, USAF, Keflavik Air Base, Iceland  
European One scheme of wraparound Greens F.S.34092 and F.S.34102 and Gunship Gray F.S.36118. Serial and titling in black. Black-outline type star and bar.



MH-3E 67-14719, 71st SOS, USAF Reserve, Saudi Arabia, 1991

Desert Storm scheme of Tan Special F.S.20400 and Brown Special F.S.30140 on upper surfaces and Tan Special lower surfaces. All markings in black. Black camel mission mark, carried ahead of starboard loading door.



United States Coast Guard badge  
Overall white, with blue text and outlines. Stripping on shield is red.



HH-3F 1494, US Coast Guard, Cape Cod 1987

Overall gloss white. Arctic Red nose and tail areas and broad fuselage band. Royal blue thin fuselage band. Note that red areas do not wraparound under fuselage. All titling, small anti-dazzle panel, window escape markings and exhaust panel in black. Full colour star and bar. USCG badge on rear fuselage stripe.

HH-3F MM80980 '15-07', 15 Stormo, Italian air force, Roma-Ciampino, 1979

Overall gloss white. Chrome Yellow nose and broad fuselage band outlined in black. Note these areas do not wraparound under fuselage. 'SAR' panel on rear fuselage is black and yellow with white text. Tail fin is red. Titling, serial, small anti-dazzle panel and exhaust panel in black. Red, white and green roundels on fuselage sides and underside.



HH-3F MM81344 '15-32', 15 Stormo, Italian air force, Pratica di Mare, 1999

Uppersurfaces are F.S.36118 Gunship Gray and F.S.34102 Gunship Light Green, undersurfaces F.S.36222 Light Gull Gray. Aeronautica Militare title in white and serial in black. Code numbers are grey with a thin black outline. Low-viz red, white and green roundels

15 Stormo badge  
Mediterranean land mass is white, sea is blue. Text and winged anchor device are yellow, thinly outlined in black. Shield is outlined in yellow and black.

HH-3F MM80983 '15-12', 15 Stormo, Italian air force, autumn 1997

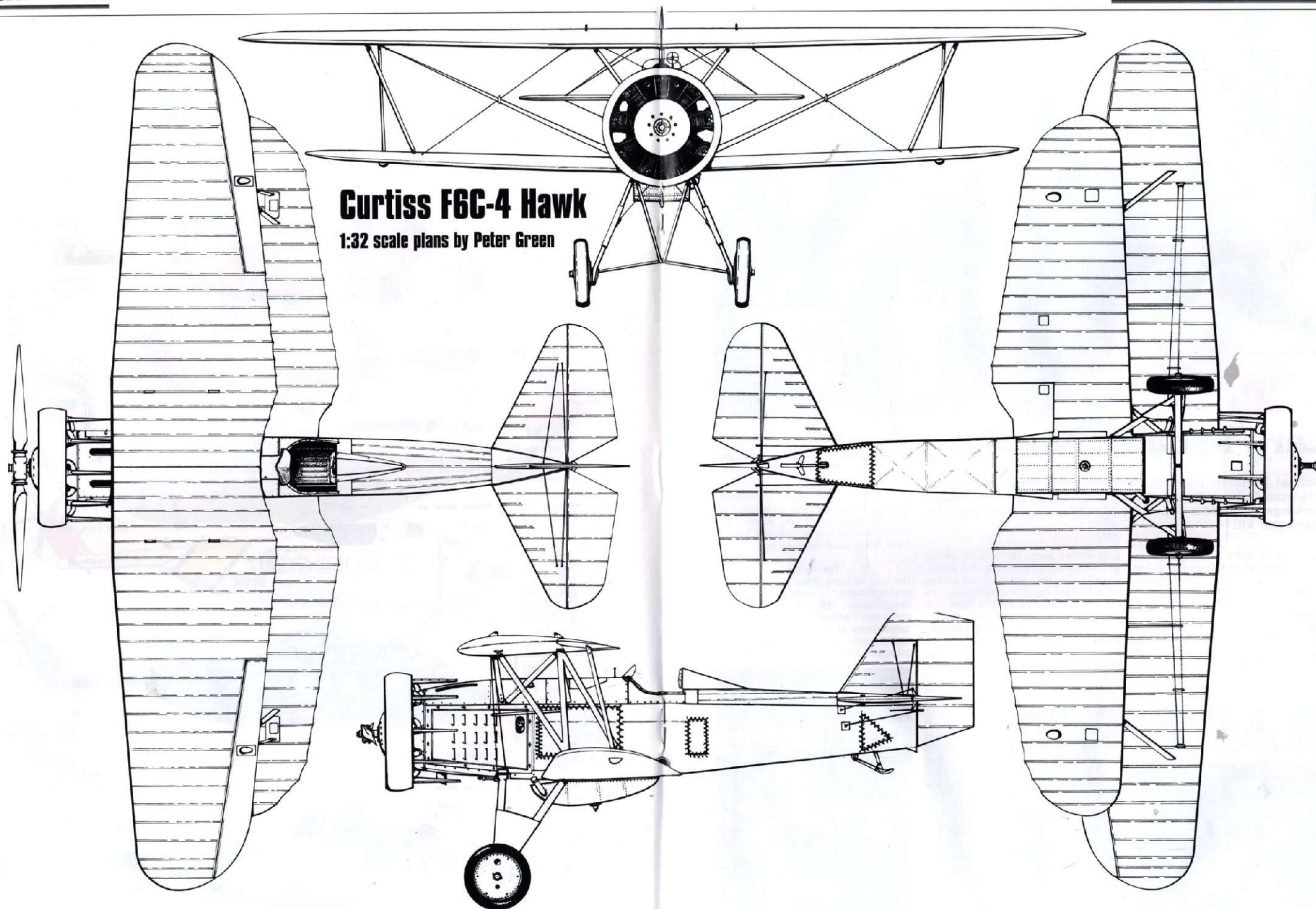
Basic scheme as '15-32' above, overpainted with cartoon pelican, to celebrate both 20 years of flying the HH-3 Pelican and 10,000 flight hours on the type. Pelican is white with yellow beak. Neck ring is red and white with counter-coloured text. All details outlined in black. Tail fin is green, white and red, with 15 Stormo badge. Text on boom in yellow and on sponsons in black.





## Curtiss F6C-4 Hawk

1:32 scale plans by Peter Green







## Large-scale 'Warthog'

Michael Ullmann used the Black Box cockpit and detail sets from Cutting Edge and Eduard, along with Astra Decal markings, to build a superb A-10A 'Warthog' from the 1:32 Trumpeter kit.

With its 1:32 scale Fairchild Republic A-10A Thunderbolt II kit, Trumpeter rocked the modelling scene. The company maintains a generally busy release schedule and has produced a number of exciting new products. An A-10 in 1:32 scale is, on the basis of its size alone, a very impressive model. However, Trumpeter attempted to use the latest in modelling technology, with engraved panel lines, metal, resin and photo-etched parts all used in the kit in an attempt to set new standards.

Unfortunately, Trumpeter did not completely succeed in its aim. The kit's metal landing gear has only rough details that need improving with the addition of

photo-etched parts. The finished landing gear must also be glued onto the model, while Tamiya, for example, uses screws for similar landing gear installations. The parts for the engines are little more than roughly-detailed blocks of resin, their fit into the engine nacelles being extremely poor. Most of the photo-etched parts are for the hinges of the engine covers. If you do not open the covers therefore, you do not need these parts. I was really disappointed that the kit did not include an ALQ-131 ECM pod. This pod remains current, while the ALQ-119 included in the kit was used in 1991 during the Gulf War. If you want to build a present day A-10, like my Spangdahlem-based A-10, you will have to build the ALQ-131 from scratch, or leave it off, since the accessories market does not offer the item.

### Opening the box

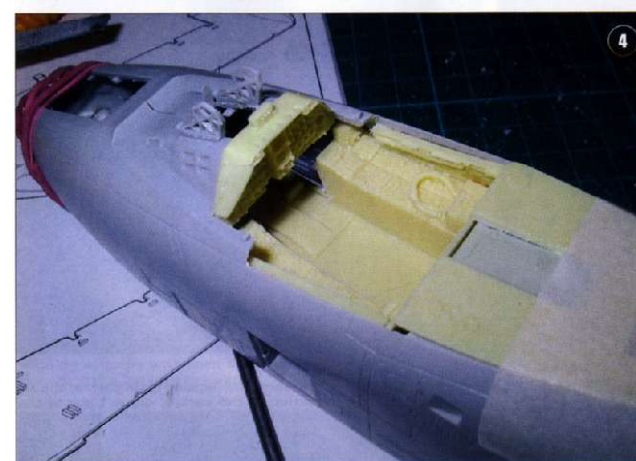
The kit comes in a gigantic, sturdy box (Photo 1). The sprues are packed individually in plastic bags (Photo 2), saving the parts, especially the clear pieces, from scratching. The instructions take the form of a small book. The individual construction steps are clearly

Using a plethora of aftermarket parts and decals, Michael Ullmann transformed the rather mediocre Trumpeter A-10A kit into a stunning model. (All Michael Ullmann)

represented and colour information, referring to Gunze paints, is provided for the painting of small parts. The instructions are a little confusing when it comes to the decal application.

### The decals

The kit includes three, approximately postcard-sized, decal sheets. Unfortunately, the printing quality is completely inadequate for 1:32 scale. The maintenance stencils are not legible and appear only as an accumulation of coloured dots. The decals cover two



aircraft, both in European One camouflage. In order to produce a model of a non-camouflaged A-10, I bought a decal sheet from the Belgian company Astra Decals, which gave me the opportunity to build the kit as an aircraft in the grey camouflage of an aircraft based at Spangdahlem Air Base in Germany.

### Detail sets

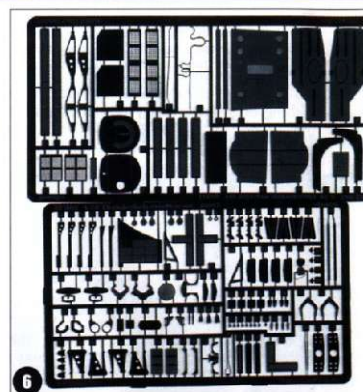
Despite its standard and its high price, the Trumpeter kit has some weaknesses. To compensate for these, there are several aftermarket accessories available. The following descriptions cover the accessories that I used for the construction of my model.

The cockpit area is one of the worst points in the kit. It is no surprise therefore, that a crop of replacement resin cockpit sets for the A-10 in 1:32 scale has appeared. I chose the set from Black Box (Photo 3). It is to the usual Black Box standard, with outstanding details. However, unusually for Black

Box, the fit of my copy was not good. I had to do a great deal of reworking before a test fit could be carried out (Photo 4) and for a second model I might use the Cutting Edge cockpit set. The major advantage of the latter is the



## Large-scale 'Warthog'



microfilm that it includes for the instrument dials.

I used three Eduard photo-etched detail sets, starting with the Interior Set. This includes parts to improve the detailing of the original kit cockpit. There is little to say about this superb set, except that since I used the Black Box cockpit, I did not require some of the photo-etched parts. I often feel that some photo-etched parts appear too flat in the cockpit area and I now strive to come up with the most realistic combination of resin and photo-etched detail sets. I used the microfilms from the Eduard set for the dials in the Black Box cockpit (Photo 5).

I also used Eduard's Exterior Set (Photo 6), which does much the same for the airframe as the Interior Set did for the cockpit. The parts for the landing gear are a delicate reproduction of the same parts on the real aircraft and they partly replace some of the clumsy metal parts of the kit. The landing gear is enormously improved through the application of these photo-etched parts. I also used the formation strip lights from this set, since the kit does not include them.

The final Eduard set incorporated into the model was the Weapons Set, which allows the A-10's weapons to be detailed. The kit parts for the weapons are somewhat meagrely detailed, but with retrospect I am not sure that this set is necessarily needed. I replaced the



The fuselage halves in Michael's kit were a very poor match. He used masking tape to limit the area affected by filler when filling the extensive gaps.

cannon muzzle and the Sidewinders with Cutting Edge parts and I did not use all of the bombs or the ALQ-119 pod. In the end, I used only a few parts for the five bombs from the Weapons Set, making it, for me, an expensive item for little improvement in the finished model.

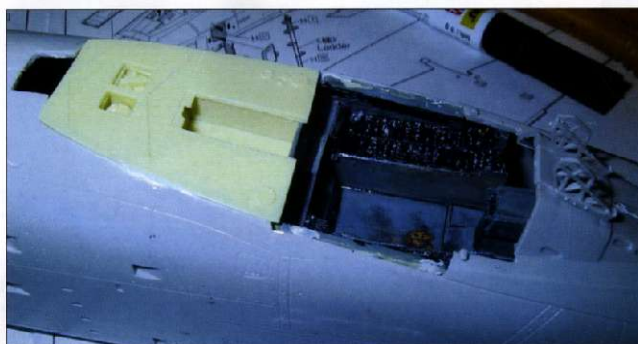
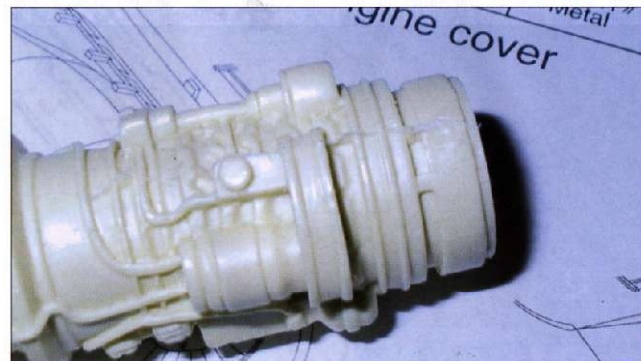
Cutting Edge provided a number of items in resin, including the GAU-8 cannon muzzle. Beside the cockpit, I would rate the cannon muzzle as one of the worst areas of the kit. However, I can recommend the muzzle replacement from Cutting Edge, and through its perforated resin cover the individual barrels of the cannon are clearly visible. Each of the individual barrels is also represented very realistically.

The same company's Bulged Wheels set was also used, these resin replacement wheels offering a far better level of detailing than the kit main wheels. The wheels are represented with flattened tyres, representing the loading of the real aircraft very well.

Returning to the A-10's weapons and racks, the Dual Rail Adapter (DRA) set from Cutting Edge was used to replace the kit part, which could not match the resin part in form or detail. Almost every A-10 is equipped with the DRA for Sidewinder carriage and this is therefore an important addition. In order to provide something equally accurate to hang on the DRA, the AIM-9L/M/S Sidewinder set, also offered by Cutting Edge, was used. In my opinion, the Cutting Edge Sidewinders are the best you can buy, in any scale, and they are certainly light years away from the kit parts. The detail incorporated by Cutting Edge is excellent, especially around the fins and wings, which are incredibly good representations.

#### Astra Decal sheet

The quality of printing on these aftermarket decals is excellent, with partially legible maintenance stencils. The decals went on without difficulty and responded very well to my preferred 'Mr. Mark Softener' from Gunze. Overall, these decals are much better than those in the kit. However, they are not without



problems. At first glance their colourful printed instructions are good. As you use the set though, weaknesses appear. A small problem is that the instructions give no indication that the tops of the fins have to be painted before decaling. The problem was worse for me, because I had chosen to build the commander's aircraft and the painting information for this aircraft was unclear. An additional problem arises with the wolf's head

The very well detailed resin part for the aft section of the cockpit did not match the contours of fuselage particularly well. Again, a little reworking was necessary.

marking for the engine nacelles. Three different sizes of marking are provided, but with no indication as to which should be used.

Michael Ullmann



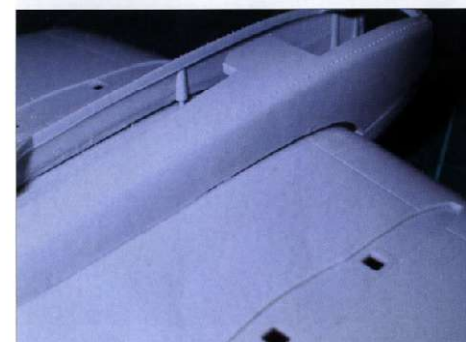
Trumpeter provides the resin representation of the engine shown at left. It turns out to be a poor quality component, which leaves a large gap to the rear of the nacelle, but succeeds in driving up the price of the kit. Michael decided to leave these parts out to alleviate fit problems. He reworked the aft sections of the nacelles and the engine fronts, as illustrated above.

## Large-scale 'Warthog'



Left: This view of the forward fuselage and nose area shows that there are clearly some issues with fit concerning the nose-gear well. Note how the part's forward section stands proud of the fuselage.

Below: The fan blades of the TF34 turbofans, having been painted with chrome silver to simulate the metal of the blades, look fine.



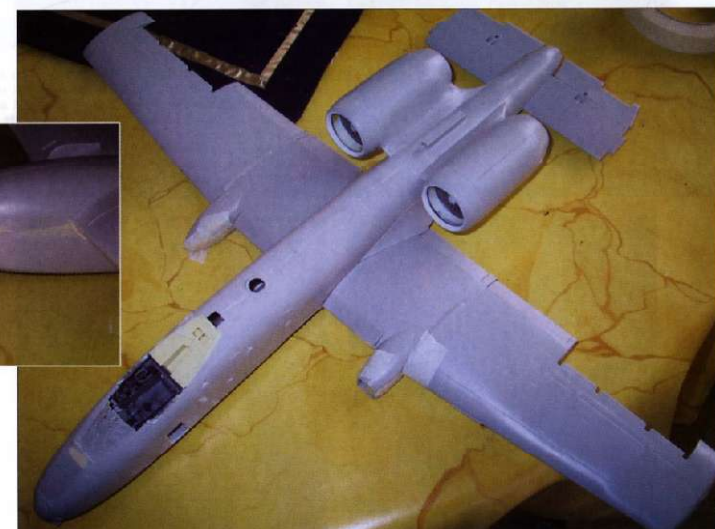
Large gaps appear between the main-wheel wells and the wings as seen above. In addition, the upper and lower parts of the wheel well fairings are also a poor fit, aligning as badly with each other as they do with the wing (above right).



Above: With careful assembly, filling and rubbing down, a good finish can be achieved around the main gear fairings.

Right: When installing the engine nacelles onto the fuselage, further gaps became apparent, as they did when offering the wing up to the fuselage. Fortunately, there was no gap remaining after installation of the tailplanes. After filling, any small gaps remaining on the upper fuselage were closed using liquid cement. With the parts together for this preliminary fit check, the size of the model became apparent for the first time.

Bottom right: Fine details from the Eduard Exterior Set were added at the tips of the wings, using super glue.







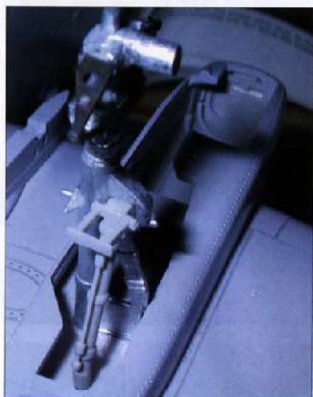
Above: A tiny part from the Eduard Exterior Set was super glued onto the underside of the port engine nacelle to represent the fuel dump pipe.

Above right: The Eduard Exterior Set also includes parts for detailing the ground pressure-refuelling connection behind the nose cap of the port side main undercarriage fairing.

Right: Again, Eduard brass-etched parts come into their own. Here the cockpit area benefits with the application of an instrument panel cover and coving, whose ventilation openings are covered by fine mesh. Black Box and Eduard components have been used to detail the HUD, as well as some scratch-built parts.



Left: Michael says he has almost forgotten how much work he used to do on masking transparencies before Eduard's pre-cut out masks appeared. He used to make his own masks, to a similar pattern, with tape and a scalpel. Michael had little to report about the A-10 masks, apart from their perfect fit. Since he always paints the inside canopy framing from inside the transparency, he often regrets the lack of provision of internal masks. Fortunately, Eduard often provides two sets of masks for the outside of the canopy parts, one for the metal framing and another for the seal between the canopy glass and frame. Strangely, no seals are visible on the A-10, so he used the slightly larger masks for the inside of the transparencies and the smaller ones on the outside.



These three images show what Michael was able to achieve by adding Eduard parts and scratch-built pieces to the rather crude Trumpeter undercarriage legs. He would have preferred to be able to screw the legs into their wells, but had to glue them.



Above and below: All of the undercarriage wheels came from Black Box, while the gun muzzle parts were by Cutting Edge. Skillful painting and washing really brought out the detail in the wheels, while the gun parts are a faithful reproduction of the original.



Above: Beautifully painted and weathered, the Black Box ejection seat really looks the part. Notice how the application of thin washes has enhanced the detail and added depth to parts like the lap straps.

Right: Underwing ordnance is a critical part of any A-10 model, the type carrying some of the most varied, and therefore interesting, loads of any modern warplane. As well as Sidewinders, Michael's Spangdahlem-based aircraft is equipped with AGM-65 Maverick air-to-surface missiles (upper) and 500-lb Mk 82 low-drag general purpose bombs. The weapons are based on the kit parts and used the kit decals, but were enhanced by the modeller. Maverick has become the archetypal A-10 weapon, as much a part of the 'Warthog' legend as the gun.



This view (above) of the underfuselage and inner underwing hardpoints shows their pylons and the addition of sway braces for the external ordnance. The same items can be seen below after the application of Michael's painting techniques, which were described fully in the SAM October, 25/8, issue.







This page: In spite of the problems Michael encountered with the Trumpeter kit, in the end it turned out to be a sound basis for this tremendous A-10A model. As well as the work needed on the basic fit of the Trumpeter parts, Michael also had to do some major remedial work in making the Black Box resin replacement cockpit parts fit the Trumpeter fuselage. He made the most of aftermarket products wherever he could, with the results being particularly noticeable in these images in the AIM-9L Sidewinder installation and the undercarriage. The markings came from Astra Decal.





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# SAM's Monthly diary of modelling related events worldwide. Events at which SAM will have a trade stand or presence.

**Saturday 18 October 2003: Abingdon IPMS model show. Abbey Halls, Abingdon town centre, Oxfordshire. 10 am-4.30 pm.** Admission: £2.00 adults, £1.00 children and senior citizens. For more information call Simon Fisher on 01993 774034, Gary Madgwick on 01235 769746, or Steve Lovelock on 01235 815571

**Saturday 1 November 2003: North Surrey Military Modelling Group presents its Open Day and Competition. Thomas Wall Centre, Benhill Avenue, Sutton, Surrey. Doors open 10 am.** Admission: £1.50 adults, £0.75 children and senior citizens.

**Saturday 8 November 2003: Heathrow Aircraft Enthusiast's Fair at Feltham Community College, Browells Lane, Feltham, Middlesex. TW13 7EF.** For enquiries and stall bookings contact Keith Manning on 01372 725063 (evenings) or e-mail keithmanning01@o2.co.uk

**Sunday 16 November 2003: Great Malvern International Military Convention at Three Counties Showground, malvern, Worcestershire.** For more information call 0870 2404691 (evenings) or visit [www.militaryconvention.com](http://www.militaryconvention.com)

**Saturday 22/Sunday 23 November 2003 IPMS/UK Scale Modelworld 2003 - THE BIG ONE!**  
 at the Telford International Centre, Telford, Shropshire.  
**IPMS/UK's 40th Anniversary Show.** Bigger and Better than ever before!!!  
 See page 631 in this issue of SAM for full details.



**Saturday 4 January 2004: Croydon Airport New Year Aviation Collectors Fair at Airport House, Purley Way (A23), Croydon, Surrey.** Aeronautical collectors fair including models, toys, books, paperwork, uniforms, militaria, plastic model kits, etc. For enquiries contact Acebell Aviation on 01737 822200

**Sunday 11 January 2004: Bolton Model Bonanza at the Community Centre, Railway Road, Adlington, Lancashire.** Displays, traders and 'make and take' for younger modellers sponsored by Revell. Special 'bring a Phantom' invitation. For enquiries contact David Swift on 01204 695375

**Sunday 25 January 2004: Militaria 2004 at The Exhibition Centre, National Agricultural Centre, Stoneleigh Park, Nr. Coventry, Warwickshire.** Europe's premier 21st century indoor military collectors exhibition. Free bus service from car park, free delivery service to car park, restaurant and bar. Admission: £7.00 adults, £5.00 OAP, children under 16 free. Open from 9 am until 4 pm. For more information call 01283 820050

**Sunday 1 February 2004: IPMS Milton Keynes ModelKraft 2004 at Bletchley Leisure Centre, Milton Keynes.** The first major model show of 2004, with up to 40 clubs and societies and 25 traders



**Saturday 14 February 2004: Fleet Air Arm Yeovilton Model Show at RNAS Yeovilton, A303 Near Ilchester, Somerset.** Models, toys, plastic kits, books, exhibitions, hundreds of traders. For more information call 01932 842630

**Saturday 6 March 2004: Greater Peterborough Model Club presents the 6th Annual East of England Model Show at Peterborough Town Hall.** Clubs, traders and all models automatically entered into competition. Open 10 am to 4 pm. Admission: free. All proceeds to Physically Handicapped and Able Bodied Club of Peterborough. For enquiries contact David Martin on 01733 380250 or e-mail the3martins@btopenworld.com

**Saturday 27 March 2004: Shoreham Aerojumble at Shoreham Airport (A27) Sussex.** All weather aviation and military collectors fair, includes models, uniforms, books, toys, plastic kits, etc. For more information call 01424 440644 or e-mail: [aerojumblesuk@andysaunders.freemove.co.uk](mailto:aerojumblesuk@andysaunders.freemove.co.uk)

**Sunday 4 April 2004: IPMS (UK) Telford and Royal Air Force Museum Cosford present the Shropshire Model Show at Royal Air Force Museum Cosford.** Clubs, traders and 'make and take' for younger modellers sponsored by Revell. Open 10 am to 4 pm. Admission and parking: free. For enquiries contact the Museum on 01902 376200

## Publishise your event

If your modelling group, club, branch, chapter or society would like their event (or even regular meetings) publicised in 'SAM' simply drop us a line with all the relevant information - date, venue, opening times, entrance fee(s), who's displaying, how to get there, and who to contact for further information. We'll leave all the details in right up to the date of the event, so the earlier you send it in, the longer it will be publicised. Don't miss out on FREE PUBLICITY, send your details today to: SAM's Events Calendar, Guideline Publications, 352 Selbourne Road, Luton, Bedfordshire, LU4 8NU, United Kingdom. E-mail: [steve@regallitho.co.uk](mailto:steve@regallitho.co.uk)

## 25th Anniversary Serving the Modeller 5 year subscription to Scale Aircraft Modelling Celebration Competition

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## Your chance to write to SAM with topics of interest to Scale Aircraft Modellers

Dear Paul

Having read the two issues covering the markings of No. 617 Squadron's aircraft (SAM May, 25/3 and June, 25/4) and reader's letters concerning Wng Cdr Cheshire's Mustang(s) I feel that readers might be interested in the following notes:

1. Barrage balloon cable cutters were not removed from the wing leading edges of the Type 464 Lancasters, as can be seen on a photograph showing a front view of Upkeep loaded on ED932 'AJ-G' at Scampton. (RAF Museum P121917). In fact, the photograph shows that additional cutters were fitted to this aircraft.

2. The nose art on Type 464 Lancaster ED886 'AJ-O' was not carried at the time of the operation, but appears to have been applied during the autumn of 1943. As far as can be determined, none of the Squadron aircraft carried nose art at the time of Operation Chastise.

3. The nose art of the 'Saint' character applied to Lancaster ED912 is correct for late 1943, being the 'personal insignia' of F/Lt 'Terry' Kearns, RNZAF. This aircraft's codes changed from 'AJ-N' to 'AJ-S' on 23 November 1943, when it adopted this insignia. Photographic evidence confirms that the aircraft was certainly still in Type 464 configuration with the calliper arms at this date.

4. Documentary evidence from several sources would suggest that Type 464 aircraft did carry a 12,000-lb HC bomb. For example, five such aircraft, each carrying a 12,000 lb HC bomb, flew on an operation against the Antheor Viaduct on 11 November 1943. What is unclear is whether the bomb was carried without bomb doors, or whether modified doors had been fitted. Circumstantial evidence to date would suggest the former.

5. With regard to code letters, throughout their entire time on the Squadron, the Type 464 aircraft only ever carried the codes 'AJ'. They did not change to 'KC'. Standard Lancasters joining the Squadron immediately after Chastise also carried the codes 'AJ', which most retained until December 1943. Lancasters joining the Squadron from September 1943 and capable of carrying the 12,000-lb HC bomb were coded 'KC'. Thus for a time, until December 1943, the Squadron was operating Type 464 Lancasters and standard Lancasters carrying 'AJ' codes (eg. EE144, 'AJ-S') alongside 'KC'-coded standard aircraft (eg. JB144, 'KC-N'). From late December 1943 all the standard aircraft changed their codes to 'KC', although the Type 464 Lancasters retained 'AJ'. The 'YZ' codes were only used from March 1945 and applied only to Lancaster B.Mk I (Special) aircraft modified for the carriage of the 22,000-lb 'Grand Slam' (other 'standard' Lancasters wearing 'KC'). From circa September 1944 the Lancasters had their codes and identity letters outlined in thin yellow, as was the practice with other No. 5 Group squadrons. By early 1945, most of the Lancasters were carrying their codes and identity letters repeated in plan view across the tailplane (both upper and lower surfaces). 'KC' was carried through to the Squadron's Lancaster B.Mk VIIs and Lincolns.

6. Lancaster Mk III JA894 is depicted accurately in the colour profiles as 'KCT' (ex-'EAC' of No. 49 Sqn), but the date and location should read 'RAF Coningsby, September 1943'. This aircraft arrived on the strength of No. 617 Sqn on 2 September 1943 and was flown to the Aeroplane and Armament

Experimental Establishment at Boscombe Down a week later for calibration trials. The following day, while being flown by an A&AEE crew, it was destroyed in a mid-air collision with an Airspeed Oxford.

7. With regard to the markings carried by Wng Cdr Cheshire's Mustang: the story about the aircraft being 'a gift of the Americans' appears to be somewhat apocryphal, although No. 54 Base Commander, Air Commodore Sharp, did have close links with the USAAF. Aircraft movement cards show that two Mustang Mk IIIs were allocated to the Squadron. Both of these were from a batch allocated to the RAF and they had serial numbers HB825 and HB837. Both were delivered to the Squadron on 22 June 1944 and only recently had been delivered to the UK, having passed through a UK modification depot where they were fitted with Malcolm hoods. At least one (and possibly both) were finished in the standard RAF grey/green fighter scheme with full invasion striping. No drop tanks were carried. They were not required for targets in Northern France, and their underwing hardpoints were required to carry marker bombs. The aircraft flew for at least some of their time without any codes or individual letter, although the Squadron Operations Record Book does record the letter 'N' against a Mustang, unfortunately without giving a serial. A photograph of one of these aircraft, wearing stripes but no codes or identity letter, appears in Richard Morris' excellent biography *Cheshire*.

8. For the record, the Squadron used a variety of marks of Mosquito during the spring/summer of 1944, although only FB.Mk Vis were actually allocated to the Squadron, the others being borrowed (mainly from No. 627 Sqn, also based at Woodhall Spa and coded 'AZ'). The Mk Vis were finished in the standard scheme for the type and for at least some of their time carried invasion striping. It is alleged by ex-Squadron members that these aircraft also carried 'AJ' coding (probably in dull red), although to date no photographs have been seen to confirm this. One such aircraft was NT202 'N'.

9. A photograph of Canberra B.Mk 2 WD997 as depicted in David Howley's artwork, appears in Philip Moyes' *Bomber Squadrons of the RAF*, captioned as being a No. 617 Sqn aircraft. However, it should be noted that this aircraft was never on the strength of No. 617, serving with Nos 9 and 21 Sqn, Station Flight Waddington and No. 231 OCU. The markings show it wearing the blue nose flash carried by No. 9 Sqn while at Binbrook.

10. To bring the story up to date, during Operation Teltic at least two of the Squadron's Tornado GR.Mk 4s carried nose art: ZA614 'AJ-J' *It's Show Time* and ZA600 'AJ-L' *Hot Stuff*, the latter also carrying silhouettes of weapons dropped on operations. (It should be noted that these symbols represent individual weapons, not sorties.) For use as the backdrop to the photograph showing crews commemorating the Squadron's 60th Birthday on 21 March 2003, (reproduced on page 275 of the June SAM) ZD850 AJ-T was mocked up as *It's Show Time*, using a photo print of the original design artwork. This aircraft also carried three red lightning flashes (as carried on the Squadron's Vulcans) and the dates 1943-2003 on the fin. ZD850 was never flown with these markings.

**Robert Qwen, Official Historian, No. 617 Squadron Aircrew Association**

Dear Paul

I thoroughly enjoyed Stephen Di Nucci's articles on the F-4G (SAM August, 25/6 and September, 25/7). As pieces about detailed modelling, including advice on technique, they were superb. One but, however, the AMT/ERTL kit is unusable as a Wild Weasel: it lacks the leading edge slats fitted, often

retrospectively, to the F-4Es from which the Weasels were converted.

Incidentally, my current score of F-4s is 106 in 1:72 and 25 in 1:48.

**Iain Peden, via e-mail**



Dear Paul  
I believe that I am able to give some help with Geoff Trenholme's problem concerning the finish of the V-Bombers in the 1960s (SAM September, 25/7).

From 1964 to 1967 I was a day student at a college in Lincoln and regularly drove past RAF Scampton, at that time the home of No. 617 'Dambusters' Squadron, which was equipped with Vulcan B.Mk 2s in Anti Flash White. Although I never saw a Scampton Vulcan on the ground close to, the way in which the sun reflected from the wings as they banked above the A15 certainly did not suggest a matt finish.

I did, however, make regular visits to the Open Days at RAF Waddington, on the other side of Lincoln, and also flying Vulcans. Here I was able to see the 'Tin Triangles' close up, and my recollection is of a semi-matt finish.

I think that the Corgi 1/144 diecast scale model of the No. 617 Squadron Vulcan XL321, which is in front of me as I write, is correct; it is somewhere between semi-matt and matt. In other words there is a slight sheen to it.

As a footnote, I do not recall ever seeing a military jet aircraft in full matt finish. In fact, when I was a cadet attending a camp at RAF Church Fenton in 1959, we were given a talk on the Hawker Hunter, a squadron of which was based there. The officer giving the talk said that the aircraft were polished in order to reduce drag, friction and fuel consumption and increase speed. The aircraft might, of course, have been repainted in matt if they ever went to war.

I hope that these recollections will be of help to Geoff and other V-Bomber modelers.

A. T. Storey, via e-mail

Dear Paul  
I respond to a comment made by Mike McEvoy in one of his Tailpiece articles to the effect that he had seen two models of the same aircraft made by the same man, but 20 years apart. I can beat that, I thought.

I still have my very first Airfix model, the Bristol F.2B Fighter, which I made when it first came out in 1955. In those days Airfix just described them as 'Scale Models', but which scale?

This junior, underpaid draughtsman parted with one and sixpence, or was it two shillings, for his meagre wages, to purchase the new Airfix kit from the local Woolworths, sped home on his bicycle, took down his copy of *Aircraft of the 1914-1918 War*, offered the kit parts to the plans on page 12 and eureka, they fitted, it was 1:72 - 'my' scale! I made it up, painted it, and it still looks okay despite its age.

Roden has recently issued a kit for the same aircraft and my original intention was to use this, and thus use kits that were also 48 years apart, but I've had to give up. The Roden kit was too tricky for this aged modeller.

I suspected I would have problems because when I first opened the box, the instruction sheet and the decals were both missing. I have written to Pocketbond whose name and address are on the box 'for reference purposes' and await a reply.

So, it was up into the attic, dust and cobwebs flying everywhere, and sure enough, another kit for the Bristol Fighter, purchased sometime after the first as this is declared to be '72 scale' (sic) and the crew figures have facial features (the original kit contained two ghouls as crew and the best I could do was to paint a flesh coloured patch for their faces and the rest in brown).

So I have now completed my second model of the Bristol Fighter, some 48 years after the first. I'd be interested to know if any of your readers can beat this, but beware, I still have balsa wood models in the garage. I do enjoy my monthly 'shot' of SAM so do keep them coming!

Joseph Burke, Warrington, Cheshire

Dear Paul  
In several issues of your magazine the camouflage of Mediterranean-theatre Mustangs has been covered.

I am not entirely happy with what I have read concerning British Mustangs in the Med, although it is also possible that the final word has escaped my attention.

I have been looking at monochrome photographs of aircraft for half a century in this sense, so I believe I could have a so-called trained eye. In some (not all) cases the tonal values of the two upper surface colours are so close to each other that in my opinion an Ocean Grey/Dark Green combination should be ruled out.

Just as a thought, how far do you have to go for the overseas 1944 camouflage of Dark Earth/Dark Green? Is the Mediterranean overseas enough?

I am sure Paul Lucas has all the dates and details. If you or your readers have anything on this topic, before I ruin my Mustang models, I sure would like to hear about it.

Karl stenman, via e-mail

Dear Paul  
Congratulations on another excellent month for SAM (October, 25/8), featuring an article with loads of lovely colour profiles of my favourite Bristol.

I write with reference to Roger Hayward's letter about colours used overseas and with particular reference to Malta-based Beauforts and North Africa-based Beaufighters of the 1944 period. My first question would be, is there any confirmatory evidence for a Beaufort, namely Mk I L9965 'T', being finished in a three-tone blue finish? This particular aircraft is illustrated in SAM 14/11 on page 494. The only colour photograph I have seen of a Malta-based Beaufort is the one shown in *British Aircraft of World War Two* and it appears (I don't like to comment as I'm not too much of an expert on colours) to be Dark Sea Grey/Dark Slate Grey with a rich blue underbelly. From what I've seen lately in SAM colour profiles, this latter doesn't seem unlikely, but a three-tone Mediterranean-blues scheme might well be unlikely. I recall an old copy of IPMS magazine showing a No. 55 Squadron Blenheim in an 'experimental three-tone blue scheme' in December 1941.

Now on to the Beaufighter. My interest is in aircraft used by No. 47 Squadron in the December 1943 to March 1944 period and in particular the torpedo carriers. My late father flew Beaufighter Mk X LZ368, with F/O Roger Waters as observer, out to North Africa on 5 November 1943. They joined No. 47 Squadron and crewed together until March 1944. Would anyone be able to give some clue as to the finish of this aircraft or of any of the other aircraft used by No. 47 at this time. I've a mind to believe that these Mediterranean 'Beaus' might well have been Temperate Sea Scheme with Azure undersurfaces. If so, was the Azure applied in the UK or on reaching North Africa? All other aircraft mentioned in the log book carry aircraft ID letters apart from LZ371 (aircraft letter not specified). I have very few photos of 'Beaus' from my father's albums. One is of a very light coloured aircraft (Dark Earth/Middle Stone/Azure? taken in bright sunlight low over the sea) and another is a dawn/dusk shot of an aircraft with rocket rails and undomed radar aerial. The former might be a No. 227 Squadron aircraft and the latter a No. 19 SAAF aircraft, since he went on to both squadrons after No. 47. That leads to another question, what about colour schemes for Italy-based Balkan Air Force 'Beaus'? I shall be delighted with any response to my questions.

Malcolm Snape, Folkestone, Kent

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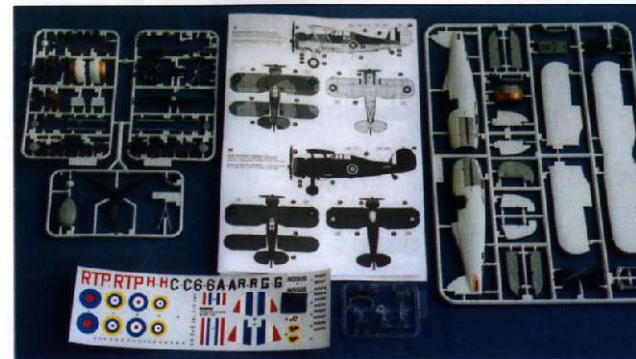
## Roden's Gloster Sea Gladiator (Interim) in 1:48 scale



### Tony O'Toole built the new Roden Sea Gladiator almost straight from the box.

The Gloster Gladiator kits from Roden have been eagerly awaited, even more so with the announcement of a Sea Gladiator among them. With regard to the Sea Gladiator I will dash many hopes straight away by saying that there is only a feeble looking hook and the dingy pack supplied to make this version, with no provision made for the hook recess under the rear fuselage, so major surgery will have to be undertaken, pending the release of any resin rectification sets, if a standard Sea Gladiator is to be made from the new kit. There is a plus side, however. The basic kit itself is excellent and there was a version of the Sea Gladiator that did not have this recess, simply having the hook attached to the exterior of the lower fuselage. Even better is the fact that of the eight decal options in the kit, four cover this 'Interim'

The kit contents are shown here, with most of the interior parts having already been painted on the sprue.



version and these are the most colourful on the sheet, with two having artwork on the fuselage and one carrying an intriguing overall black night-fighter (?) scheme. So all is not lost, an authentic Sea Gladiator can still be made from this kit, almost straight from the box.

Some 22 Sea Gladiator (Interim) aircraft were built, serialised N2265/2277, N2281/2282 and N2296/2302 (some sources state that there were 38 machines, serialised N2265/2302 inclusive) hastily modified from standard Gladiator Mk IIs, pending delivery of full specification Sea Gladiators. The only naval modifications carried out to these Interims, apart from the externally mounted arrester hook, was the inclusion of a naval TR.9 radio and the recalibration of the airspeed indicator from miles per hour into knots.

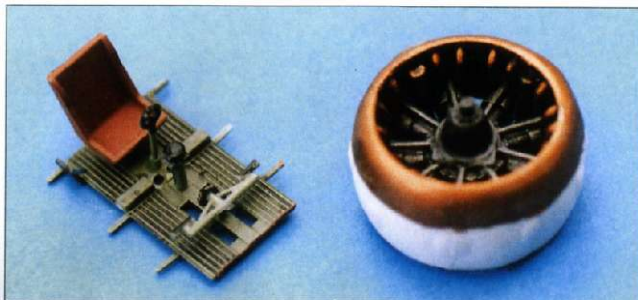
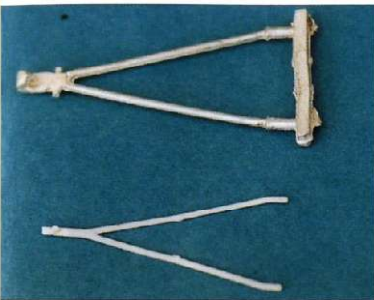
The Admiralty had decided in 1937 that the then current fleet fighter - the Hawker Nimrod biplane - could not last in service until the proposed new Blackburn Skua and Fairey Fulmar were ready and a new, more advanced interim replacement was required in the meantime. The Gloster Gladiator was still in production at this time and a

navalised version was seen as being the best solution. As the Royal Navy required its new aircraft immediately, standard Gladiator Mk IIs were taken off the production line and converted to Sea Gladiator (Interim) standard, while design work for the 60 dedicated Admiralty-ordered aircraft was completed. The standard Sea Gladiators were delivered with navalised radio and airspeed indicators, as per the Interims, along with recessed arrester hooks, a dingy pack on the lower fuselage, mounted between the undercarriage legs, and catapult points. The Admiralty had stated that it wanted its new Mk II-standard aircraft to have the wooden two-bladed Watts propeller instead of the metal three-bladed Fairey Reed, since the shorter take-off distance achieved with the former was preferred over the greater flight performance provided by the latter. A minor change in the pitch of the three-bladed propeller, however, improved take-off performance, so this modified Fairey Reed unit was chosen as standard



Above: The instrument panel was painted on the sprue and shows how effective the instrument decals look when placed on the reverse of the clear part. Also note how the canopy framework has been painted in the interior colour first, before the camouflage colours are added later.





Above: The completed Pegasus engine in its cowl, compared to the kit item. In comparison with the rest of the kit, the hook was really disappointing, having no detail whatsoever.

Above left: A closer view of the Aeroclub arrester hook, compared to the kit item. In comparison with the rest of the kit, the hook was really disappointing, having no detail whatsoever.

Left: This is a modified Lindberg kit, depicting one of the famous Sea Gladiators used by the RAF on Malta, where the hook was removed, leaving just the empty recess. This recess was simply cut out of the lower fuselage and boxed in using plastic card. The same could easily be done with the Roden kit if required.

fighter flight of HMS *Eagle* was the only fighter protection for the British fleet in the area and it used the Sea Gladiator to good effect, downing relatively large numbers of Italian aircraft, mostly Savoia-Marchetti S.M.79s, until the aircraft was replaced by more modern fighters in 1941. Most remaining Sea Gladiators remained in service on second-line duties as commanding officers' hacks or on meteorological recon until at least 1944.

## Building the Model

My first job was to paint most of the interior parts, such as the engine and cockpit and

for all subsequent RN and RAF Gladiators. Some Sea Gladiators were still seen in service with the two-bladed propeller, but these were presumably replacement propellers obtained from old RAF stocks. This is backed up by the fact that the only Sea Gladiators with the wooden propeller that the author has seen in pictures, were of aircraft in the Mediterranean theatre.

The Sea Gladiator with its associated naval equipment was 110 lb (50 kg) heavier than the standard Gladiator Mk II and its Bristol Mercury VIIIA engine (the same engine used in the Mk II) gave it a maximum speed of 253 mph (407 km/h) which was just 4 mph (6 km/h) slower than the standard aircraft.

The first operational Fleet Air Arm squadron to use the Sea Gladiator was No. 801 Naval Air Squadron (NAS) embarked aboard HMS *Courageous* in May 1939, most of the Interims having been issued to training units, and by the outbreak of war in September, the full total of 12 Interims and 60 full standard Sea Gladiators had been delivered. Most of the Sea Gladiator (Interim) machines seem to have made their way during 1940, to No. 804 NAS in the Orkney Islands. While based there they protected Scapa Flow, as well as flying operations during the Norwegian campaign

The recessed detail in the model was highlighted using a mix of watered down black and raw umber watercolours which were run into the detail and then wiped off using a paper towel. The result is a more three-dimensional and accurate looking model. Note also how the control surfaces have been displaced and that the struts for the top wing have been added.



# Roden's Gloster Sea Gladiator (Interim)

I do this while the parts are still on the sprue, since I find it easier to detail-paint them while they are still firmly held in place. When the parts are removed, the small area that was attached to the sprue can be cleaned up and when the assembly of the entire subsection it is part of is complete, a few dabs of the relevant colour hides these freshly cut areas, resulting in a nicely painted assembly. The engine components were mainly painted black and were then given a dry brushing of silver to enhance their detail, while the parts of the cowling covering the exhaust collector ring and the individual exhaust pipes that attach to the engine cylinders, were painted using Humbrol Antique Bronze.

For the cockpit floor, sidewalls, rudder pedals, control column, etc, I used Interior Grey Green. The pilot's seat was painted Brick Red in an attempt to reproduce Bakelite, which was being used for some aircraft seats at this time and the fuselage mounted 0.303-in Brownings which protrude into the cockpit were painted black and dry brushed with silver to produce an effective gun metal appearance. The cockpit parts are well detailed, with the rudder pedals even having the star-shaped adjustment screw. The instrument panel is moulded in clear plastic, with the dials represented by decals that are attached to its rear, enabling its forward side to be painted matt black, but leaving the dials clear. This gives a very convincing look.

I found the engine a little fiddly and struggled to close the cowling parts, but I am sure it was my fault, since suddenly everything fitted into place. I quickly wrapped Tamiya tape around the cowling to keep it in position and the result was a very convincing looking Mercury installation.

## Airframe assembly

With the cockpit interior assembled it can be placed inside one of the fuselage halves and the fuselage closed up. I decided to leave off parts 47D, the gunsight, and 46D, the headrest, until after final painting, to prevent them being damaged. Before closing the fuselage, it is a good idea to remember to put in the two fuselage-mounted machine-guns; unfortunately I forgot until later. With the



This underside view of the completed model shows the new arrester hook, the exhausts and the underlying machine-guns. 'Oil stains' have been created in wiping off the watercolour paint from the recessed panel line detail.

fuselage assembled, the lower wings were added, along with the tailplane and undercarriage legs, but leaving off the control surfaces for the time being. Once dry, the model was sanded down to remove any seams and the same was done to the upper wing, which had been removed from the sprue by this stage.

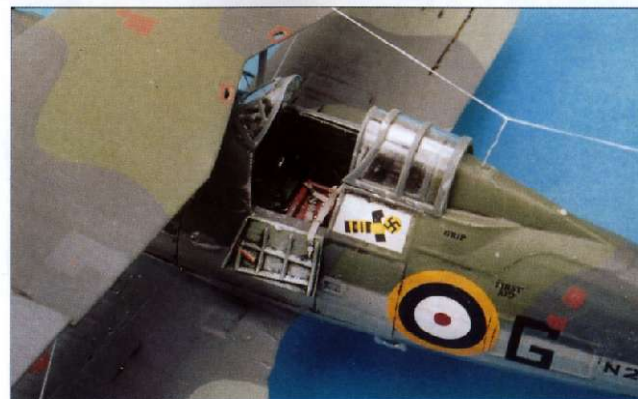
With sanding complete, the control surfaces were added. All were displaced to highlight the separate parts provided – one of the good features in this kit.

Next I decided to fit the arrester hook to the lower fuselage, but unfortunately that provided in the kit is too small and spindly, looking nothing like it should. I decided to replace it with a metal hook from Aeroclub – it is provided as one of a pair in accessory set V131. This is much more substantial and fits the bill superbly. With assembly of the main airframe now complete, I decided

to commence painting, leaving off the upper wing until later.

The colour used for the lower surfaces of most Fleet Air Arm aircraft at the start of the war was Sky Grey, but unfortunately no paint manufacturer seems to have this important colour in its range and there is a lot of confusion over what it actually looks like. I have only seen one colour photo from the period, showing a Swordfish bearing this colour and it looks to me like a slightly lighter shade of Medium Sea Grey, so that is what I use on my models, adding a little white to lighten it. The paint used to make the Sky Grey for this Sea Gladiator was from the Polyscale acrylic range. The entire undersides, including those of both wings, were painted Sky Grey, with a straight demarcation line along the side of the fuselage, mid way up and level with the top of the gun trough, as per the photograph of the aircraft that I was building. This was masked once dry, using Tamiya tape. For the upper fuselage and top wing, Polyscale Dark Slate Grey was brushed on and, after a few coats, Xtracolour Extra Dark Sea Grey was added to produce the Temperate Sea Scheme disruptive camouflage. At the start of World War II there was a shadow-shading scheme used by British biplanes, where lighter colours were added to the lower wings and other areas. For the Sea Gladiator only the lower wings were affected and these were painted the regulation Light Slate Grey and Dark Sea Grey on the model, using colours from the

A close up of the cockpit area shows the distinctive artwork carried by N2272 while serving with No. 804 NAS. Also seen is the pre-painted etched-brass harness from Eduard on the pilot's seat, the elasticated monofilament radio antenna and a couple of the fabric patches on the fuselage, painted on using Humbrol Brick Red.







A comparison of the new Roden Sea Gladiator (right) featured in this article and the old Lindberg kit (left), converted into one of the famous aircraft operated from Malta by the RAF.

Xtracolor range. To finish off, the exhaust collector ring was sanded and tidied up, receiving a final coat of Humbrol Antique Bronze. As some of the paint used was gloss and some matt, a coat of gloss varnish was applied to provide an overall decal-ready gloss finish.

#### Decal options

One of the better known pictures featuring an early war Sea Gladiator shows a group of Fleet Air Arm pilots, one of whom is Sub-Lt J. W. Sleigh, grouped around and inside an aircraft of No. 804 NAS at Hatston, from where they were defending Scapa Flow. This aircraft displays the personal artwork of Sub-Lt J. W. Sleigh and depicts a naval officer's arm and fist punching through an Italian fasces symbol to hit a Nazi swastika, and luckily it is one of the options offered in the kit decals. The aircraft itself is N2272 and after service with No. 804, which was its original unit from delivery in December 1939, it went on to serve with No. 787 NAS at Yeovilton and at Duxford between 1941 and 1942, before settling at Yeovilton with No. 759 NAS in late 1942. It was finally retired in 1944. I had always liked this aircraft and this was the one that I decided to model.

Looking at the photograph, it was obvious that the fuselage roundels provided in the kit were not the same style as those on the real aircraft. The roundels on the kit sheet are all also in what seem to be pre-war bright colours and may or may not be right for the aircraft concerned, but I decided I would opt for the darker wartime shades. After much searching through my spare decal files I finally came across some that had just been added from the recent MPM 1:72 Wellington Mk IC and these were perfect for the fuselage. The 'B' Type upper wing roundels came from a 1:72 Fulmar and the lower wing 'A' Types came from the Classic Airframes Hurricane Mk I, with the full-fin flash coming from Aeromaster sheet 48-187 *Gloster Gladiator Collection*, although the kit item could have been used with the blue painted over. The kit decals that I did use were for the artwork under the cockpit, the serial, the code letter and various

This final view shows the completed Roden Sea Gladiator (Interim) in all its elegant glory.

stencils, and although well printed, they did not stick very well and silvered easily. To counteract this I lifted them, applied fresh varnish underneath and then stuck them down. A further coat of varnish was applied over the decals to seal them in. I have since made another kit and the decals were much better in this respect, so it may just have been a bad batch. After the gloss varnish had dried, a few coats of Polyscale Matt Varnish were brushed on and the struts for the upper wing were attached to the lower wing and fuselage.

Before the top wing was added, my usual round of highlighting the panel lines took place, using watercolours. Black and raw umber were mixed and brushed into the recessed detail, to be wiped away using a paper towel when tacky, leaving the recessed detail highlighted. I also find that this helps to dirty up the paintwork to give a more operational look to the model. This look was enhanced with a few strategically placed fabric patches that were painted in slightly different colours to the underlying surfaces, and silver paint chips. To enhance the cockpit I added a pre-painted seat harness from the Eduard range.

The top wing fitted easily into place and I was enjoying the model so much that I decided to rig it straight away. Normally biplanes sit forlornly on a shelf for months at this stage waiting for me 'to be in the mood'. I will be the first to admit that I

cannot rig biplanes, but I do find it easier using guitar string from the local music shop. Using a set of dividers (my wife's old school compass) to measure the required lengths, I transfer these to the guitar string and then cut it to size for fitting with cyano glue. After a couple of hours, the result was a fully rigged model. To tone down the metal finish of the rigging a little, a coat of Humbrol Metalcote Dull Aluminium was applied. The rigging is quite sturdy and has even survived my four-year old son Robert running around the room with the model while playing at 'The Red Baron'!

To finish off the model, the pre-painted canopy, along with the gun sight and head rest were added to the cockpit, along with the side doors, which require cutting down a little to fit into place. The wheels, foot rest, exhausts, carburettor intake and propeller were also added, the underwing guns fitted in place and a radio antenna made using elasticated filament from Aeroclub. Note that the Interims did not carry dinghy packs.

I really enjoyed this model, even though I was initially disappointed upon opening the box to find no separate rear fuselage piece with the recessed hook detail, or a cut out already in the fuselage. The modification would not be too difficult to perform, as can be seen from the picture of the conversion that I have done on an old Lindberg kit. Never mind, as shown, a competent model can still be built and even if you don't want to build a Sea Gladiator, at least both types of propeller are supplied in the box to enable a Gladiator Mk I or Mk II to be built instead. I'm just hoping that enterprising companies will produce resin conversion sets and decal sheets that feature some of the pre-war aircraft that flew in the silver scheme from carriers such as HMS *Courageous* and *Glorious*. With their bright fuselage carrier bands and squadron markings across the top of the wing, these must surely rank as some of the most colourful of all Gladiators.

Tony O'Toole



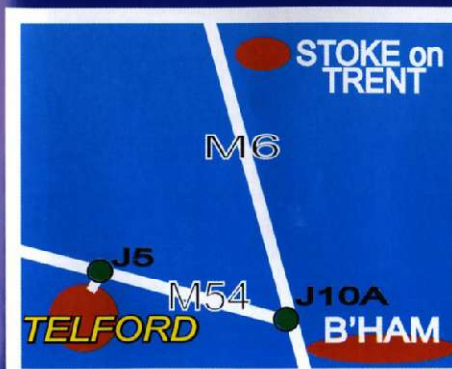
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## Reviews of some of the latest kits received by Scale Aircraft Modelling



### Kawanishi H6K5 'Mavis' 1:144 injection moulded

The Kawanishi H6K5 flying boat was produced for the Japanese navy between 1938 and 1942 and this kit is one of the latest offerings from Trumpeter, in 1:144 scale. The kit is moulded in soft grey plastic with 17 clear parts, all of which are flash free.

Construction starts with the use of a drill, the smallest windows and side blisters in the fuselage having to be cleaned out and filled with clear parts. The cockpit assembly, finished in black and metallic green, is basic, but in fairness cannot be seen on completion of the model.

With the cockpit completed the fuselage halves are joined and the tail fitted. The waist blisters are then fitted to the fuselage sides and the wing floats constructed. The four engines are built and fixed to the wing; the air scoop housings did not meet the curved engine nacelle very well and had to be bent slightly. The wing is then attached to the fuselage. The main canopy, struts and floats are added, along with ailerons, to



complete the construction. No armament is included in the kit, so four 7.7-mm (0.303-in) machine-guns and a 20-mm cannon will need to be scratch built. A nice retro touch is a two-part clear plastic stand.

If you want to use the stand, a small square of plastic on the hull has to be removed. This is easily done, since the square is much thinner than the rest of the hull. Not all

modellers will like the stand, but unfortunately beaching gear is not available.

The decals were a little thick, but went on fine; with six variations and two colour schemes (Imperial Japanese Navy Green/Grey and overall JN Grey) there is plenty of choice.

The kit went together well and very little filler was needed. It is recommended

especially if you are short of space and prepared to handle some very small pieces during construction.

Dave Harrington

Thanks to Trumpeter for the review sample

Suggested websites:  
[www.vectorsite.net/](http://www.vectorsite.net/)

[www.214.com/jw2/japan/h6k](http://www.214.com/jw2/japan/h6k)



### Bristol Fighter F.2B 1:72 injection moulded £7.25

With this latest release from Roden you get a lot for your money: four sprues with a total of 89 parts and markings for a choice of six different machines, from a No. 11 Squadron aircraft on the Western Front in November 1917, to a No. 1 Squadron, Australian Flying Corps machine in Palestine in 1918. An aircraft of No. 141 Home Defence Squadron, in night markings and complete with rampant cockerel is also included. The instruction sheet is on three folded A5 sheets and has 13 perspective views of the construction.

You are also given the



opportunity to make up your 'Brisfit' with a fully detailed, and I do mean just that, uncowed Rolls-Royce Falcon engine, which is option A. The engine alone has 21 very tiny parts, which include the cylinders, overhead camshafts, injection and breather tubes, magneto, electrical harness, oil tank and, of course, the engine bearers. Following steps 5B to 9A will result in a beautiful little

engine module, complete with firewall, Lewis gun, radiator and louvred shutters, to plug onto the fuselage. If opting for the B version, as I did for the purposes of this review, you are referred from 5B to go to stage 10B, since there is no point in adding all those detail parts, if the engine is hidden under the cowl. The only gripe I have is with the detail painting instructions, since the

cylinders, reduction housing and engine bearers should be black and not aluminium, while the oil tank should be dark grey.

At this stage I should add that I have, over the years, collected quite a reference library, including the *Windsack Datafiles* and No. 4, on the Bristol Fighter, is long out of print. A check with the drawings in that publication seems to

indicate that the fuselage is a little over long once the rudder and tailplane have been added, by 3 mm – not enough to really matter in this scale.

The tailplanes, however, do seem to be questionable. Changes were made to the design and shape in the summer of 1917, when the F.2B superseded the F.2A and the kit item is at odds with the drawings. The only way to correct these would be to detach the kit elevators and and scratchbuild new units, since both the outer and inner curves are in error.

After building up the 'short' engine for installation and painting the detail, it is set aside to dry, and work on the major components can begin, by detaching them from the sprues and cleaning up the small amount of flash. The amount of detail to add to the fuselage is amazing in this scale. The instrument panel and ammunition box are moulded as one – the panel should be painted in a mahogany finish and the instruments picked out, while the box should be aluminium. The pilot's seat is mounted on the fuel tank, painted dark grey, while the wicker seat itself should actually be a straw colour, with a leather cushion painted either black or reddish brown. The observer's/gunner's area has a secondary control column, that in an emergency operated

the elevators only and is situated on the right side as the instructions show. Also included are six Lewis-gun magazines and these are painted black with khaki brown carrying straps.

Once all the detail has been added and painted the fuselage halves can be mated, and set aside to dry. The wings are next and here I decided to detach the ailerons and set them 'on a slack cable'. I painted the underside of the fuselage and wings with Humbrol No. 74 Bleached Linen and the engine cowlings battleship grey.

The colour references for the topsides quote matt World War I Dark Green No. 108 but Humbrol no longer makes this colour, so I looked for a substitute. After some experimentation I settled on No. 159 Matt Khaki Drab with a dash of Satin Black added. The official colour PC10 varied greatly from green to chocolate, and adding just a touch of carmine or plain red to the mix will give the variation. Having mixed my preference, I painted the topsides of the fuselage, wings and tailplane. The colour should be returned around the leading and trailing edges, and the wingtips, for two scale inches, but there is no mention of this on the instruction sheet. Once the paint was dry, I applied a coat of Kleer polish and applied all

the roundels and squadron markings. I chose to model A7288, the machine flown by Lt (later Major) Andrew McKeever, DSO, the top Brisfit ace, who scored 30 kills from May 1917 to January 1918. I found the decals to be very thin and fragile to apply and mine had to be touched up with the colour match once dry.

The next part of the build was the most testing and frustrating: attaching the lower wing, which is suspended below the fuselage, and the undercarriage. I built two jigs and made five attempts to get it right and I am still not entirely happy with the end result. While this was setting, I painted the interplane struts and other add-on details, ready for the final assembly.

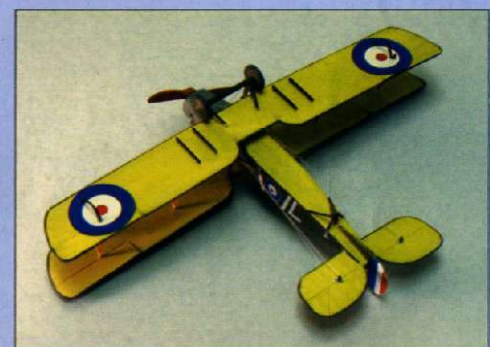
I modified the jig to allow for the wing stagger and

assembled the top wing onto the outboard struts, using Superglue Gel, and then added the remaining struts, and finally the tailplanes. There is a small gap between the fuselage and each tailplane, so do not remove the moulded pips at the inboard end.

When the assembly was dry, I added a token amount of rigging using stretched sprue, but in this scale I found it a real test of my eyes, and I now know only too well why I much prefer to model in 1:48 scale.

I am quite sure that there are a lot of modellers who will make a real eyecatcher out of this little beauty, although at the same time they will have their skills put to the test – but isn't that what modelling is all about?

John Chapman



### Vultee A-35 Vengeance 1:72 injection moulded

Although this aircraft has been issued in kit form by a number of companies over the years, all of these kits are from the original Frog moulds, dated 1970, so this Special Hobby kit is a welcome newly-tooled production. This kit is from the 'short-run' arm of MPM, and as far as I can see the only disadvantage in this is the fact that it will be available only for a limited time. The quality is excellent and up to the standard of many steel-mould kits.

The modeller's first task is to assemble the cockpit, most of which is in resin. The pilot and gunner's area is a single

resin piece, to which is added the seats, control column, gun sight and rear gun – all in resin. There is just one plastic part, the vee strut over the cockpit. The engine is also resin, on to which are fitted the cowl halves and the

cowling ring. This latter assembly is put aside and the pre-painted cockpit fixed to the fuselage half, the resin tailwheel well is cemented in place and the fuselage halves can then be joined. The horizontal tail surfaces are

single mouldings and butt join to the fuselage.

Each wing is in two halves and when cemented together they fit over aerofoil sections moulded to the fuselage. The external fairings for the undercarriage legs are in resin





and they were fitted next, then the cowling, followed by etched-metal cooling gills, and then the model was painted. I added the pre-painted exhaust stubs, pitot and the undercarriage. I glossed the model and applied the decals, in my case Brazilian markings. After applying a coat of matt varnish I fitted the vacform canopy. There are three options concerning the canopy. It can be mounted in the closed position, or sections can be removed at the rear to show the gunner's area in either of two open positions. I chose to remove just the curved section. I had already cut it out and trial fitted the canopy, but when it came to cementing it in place I had a problem. Due to its size and flexibility, I could not get the canopy to stay exactly where I



wanted it. Because of this I had to resort to a trick I had used before. I glued, with PVA, the canopy at one side. When the glue had set I applied glue to the other edge and taped it down in position until that glue

had set. It was then just a matter of filling any gaps with more PVA.

Just the propeller now remained to be fitted and this has a separate hub in resin, to which styrene blades are fixed.

I found this a touch fiddly – super glue is unforgiving.

This kit was a fairly simple one to build and it is certainly an improvement on the Frog rendition.

Ernie Lee



assembly is quite normal in that it consists of a single lower half with separate upper surfaces. Before joining them, resin wheel well floors are fixed to the inside of each well. When I tried to fit the wings I encountered my first major snag – the fuselage was too narrow for the wings, which meant that there was a huge gap between the wings and the fuselage. After a few minutes thought and experimentation, I realised that it would be possible to spring the bottom of the fuselage out to fill the gap. I cut a length of 1/8-in square plastic strip and using a pair of needle-nose pliers to open the fuselage, it was possible to cement the plastic inside and then fix the wings, thus locking the whole unit. It was then a matter of adding pieces under the fuselage, including the engine cooling flaps. I next fitted the fuselage gun bulges, not forgetting to drill them out for the guns. At the same time I drilled out holes for the wing guns and pitot. Adding the butt-jointed horizontal tail surfaces was the last job before painting, apart from adding the aerial mast (I was producing the British version which uses the mast).

After painting, I fitted the main undercarriage and turned my attention to the tailwheel. Having painted a small piece of tissue I wrapped it around the tube and cemented it in place, it was then just a matter of piercing the tissue and fixing the tail wheel leg in place through it. I fitted the pre-

starts with the rudder pedal and instrument panel assembly – all this is constructed from etched brass. It then moves on to resin, where the complete cockpit module is assembled, with various details, such as seat belts, being added in etched brass. This is then slotted into one half of the fuselage and the fuselage joined. However, before that I decided to alter the tailwheel well. On the real aircraft the inner section of the tailwheel leg is encased in a canvas shroud. To replicate this AML

has provided a plug with a pyramid-like structure. Unfortunately this plug is flush with the fuselage surface, leaving no well. I scrapped this piece and fitted a floor inside the fuselage, cemented a small length of tube extending to the height that the cover would come to and then left this area until later. The underfuselage intake is a separate resin component and it needed a little work to get a snug fit.

After fitting the nose plug I started on the wings. The



Curtiss P-40C/Tomahawk Mk IIb

1:72 injection moulded

This is yet another 'limited edition' kit from the Czech Republic. Moulded in dark green with incised panel lines and lots of resin and etched brass, the kit enables you to make either the American or British early P-40. Construction

## Kit Reviews



painted exhaust stubs and the machine-guns (these are simply short lengths of black rod). Having given the model a coat of gloss varnish it was time to apply the decals. My particular machine was re-painted with

Stone from Dark Green, but instead of renewing the serial it was painted around. To achieve the look of this, I painted small rectangles of clear decal Dark Green and fixed them to the fuselage before applying the

serial. One problem I did have was getting the shark's mouth to fit and I finished up touching in with paint. After a coat of matt varnish it was time to fit the canopy, which was already painted. This is a vacform

product and although I got it to fit reasonably, it was only by pressing it down that I made it connect on both sides. To overcome this, one side was cemented in place with four-minute epoxy and then the piece was pulled across with a strip of masking tape until the second side was fixed. After a little Crystal Clear had been added around the joint, it was time to fit the airdials and the propeller.

None of the problems I had are difficult to remedy and I now have a decent RAF Curtiss Tomahawk to add to my collection.

Ernie Lee

Suggested reference:  
Curtiss P-40 by MBI

Thanks to AML for the review sample



Grumman F8F Bearcat Rare Bear 1985

1:72 injection moulded

This kit consists of 26 injection-moulded pieces and two each in resin, white metal and vacform plastic.

High Planes is now well-known for its ranges of 1:72 and 1:48 kits for aircraft which have not been well-covered by the major kit manufacturers. Its Reno Racer ranges are now quite extensive. *Rare Bear* is probably a fairly typical example of these kits, being moulded in a rather soft pale blue plastic with lightly engraved details. As a short run product, it does, understandably, require a little extra effort to build.

I commenced work by washing all the parts in

detergent, before cleaning off the surplus plastic. The lower wing required the removal of a large amount of material to permit assembly. With this done, the cockpit details could be added to the wing centre section upper surface and painted. I added a home-made control column, since this is not supplied. I found that the resin wingtips were such a poor fit as to require a large amount of filler, and so opted to make my own from Milliput, sanded and polished to shape.

The instructions advise test fitting the canopy (two copies are supplied) at an early stage, before gluing the fuselage halves together, and adjusting the plastic parts to achieve a good fit. I found that a little more was required, since the coaming/ windscreen aperture was too wide. A little scratch building with plastic card solved the problem. Before the fuselage halves are glued, care is needed to ensure that the disc representing the engine front is correctly positioned,



since misalignment will throw the propeller noticeably askew. I made things a little more difficult by electing to drill the disc and add a propeller shaft.

Once the wing, fuselage and tailplanes were assembled, the gloss white finish could be applied. I chose to do this before fitting the undercarriage and the exhausts, which fit inside the inner undercarriage recesses. These, incidentally required major cleaning up to fit. The propeller blades are purple with white tips on their front faces, so be prepared for the job of mixing the appropriate shade.

The decals proved a little reluctant to stick to the subject so needed some assistance, plus a thin varnish over spray. Those on the undercarriage doors were, I felt, best applied before assembly. Small strips of card require adding to represent

tailwheel doors. The cockpit hood, having been tested for fit earlier, was applied last.

I would have liked to have seen a couple of shots of the real thing in the instructions – if you don't know your Bearcats you could fit the undercarriage in a variety of odd positions. However, since this is a kit aimed at enthusiasts, perhaps this problem is unlikely to arise.

If you are a fan of racing aircraft, the High Planes range is for you, so long as you can accept the extra work. The decal sheet supplied with this kit gave additional numerals which were not required, plus some other artwork. I know that High Planes kits *Rare Bear* in some of its other incarnations, so I presume that these decals apply to the other kits. Just be sure that you use the items specified for this kit!

Bill Anderson







### Messerschmitt Me 328 1:72 injection moulded

This is an extremely basic kit, consisting of just 16 parts, out of which three go to make a stand, while two are optional wing panels. Two unused parts are the main struts for mounting the aircraft onto its Do 217E mothership. As built, the actual aircraft model pictured here consists of just nine pieces. In addition, the kit includes a conventional instruction leaflet and a set of decals. These latter are equally basic, providing six wing and fuselage crosses and, to their credit, also including swastikas for the fin.

I hadn't realised, until reading up to build this kit, that the Me 328 was a truly fascinating aircraft. It was designed, at least in its primary Me 328B form, as a high-speed attack aircraft, launched from a mothership against heavily-defended targets of high priority. Indeed, in his book *Hitler's Miracle Weapons*, reviewed elsewhere in this issue, Friedrich Georg suggests that there is evidence for the Me 328 being partly developed with a tactical nuclear strike

mission in mind.

The kit enables a choice of prototype aircraft to be built, either the Me 328 V1 or V2 aircraft, the latter being described in the instructions as having shortened wings. This is contradicted by the instruction diagram and painting guide, which both show V2 as having the longer wing. It seems that the wings were probably interchangeable, but I could only find pictures of Me 328s with the longer wings. I am fairly certain that the shorter wing was not used in gliding tests and since the kit does not contain pulse jets, it is fair to say that it truly represents the long-span Me 328 V1 glider.

With the dilemma of what exactly you are about to build over, construction starts with a

single cockpit floor/seat/rudder pedals piece, into which is cemented a rod-like control column. The fuselage halves close around this reasonably well, requiring just a little filler. The horizontal tails also fit reasonably well, a quality that is not shared by the wings. In order to avoid a huge step between the wings and their roots, I had to trim away their fixing tabs until no more than a sliver of plastic remained. It was then possible to align them reasonably well, using copious amounts of filler to hide the joints. Luckily, there is little surface detail to be removed by the resultant sanding and the model was soon ready for painting.

I am rather pleased that with the model painted and with its canopy in place, it looks every inch an Me 328. I

have some reservations about the canopy, which I think needs more framework, but in general the finished product is a fine one. I was surprised by how much fun I had in building the model and delighted by the different avenues researching it took me down. For this sheer modelling pleasure alone, I recommend it to you.

**Paul E. Eden**

Suggested references:  
*Warplanes of the Third Reich*, by William Green  
*German Aircraft of the Second World War*, by J. R. Smith and Antony L. Kay  
*Hitler's Miracle Weapons: Secret Nuclear Weapons of the Third Reich and their Carrier Systems: Volume 1*  
*The Luftwaffe and Kriegsmarine*, by Friedrich Georg



## Book Reviews

### Windsock Datafile Special: Albatros D.III P. M. Grosz Albatros Productions Ltd. £21.00

This book, combined with *Datafile No. 19* on the Albatros D.III (OEF), now gives us an excellent reference library on this aircraft. In many cases Windsock is ahead of the kit manufacturers when it comes to producing monographs, but in this instance the large number of Albatros D variants produced by Roden makes this a 'must have' book. Most of the text

### ALBATROS D.III By P. M. Grosz

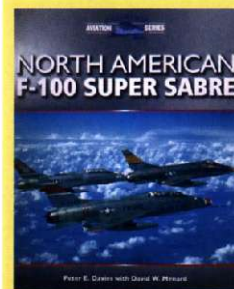


is taken up with the development of the D.III, with the usual large number of photographs and their accompanying informative captions. The 1:72 and 1:48 scale drawings are by Martin Digmayer and cover Albatros and OAW-built machines. It is obvious, looking at the drawings, why you need them. World War I aircraft are notorious for their variation and this one is no exception. For instance, the drawings show no less than six upper-wing radiator styles and four propeller variations. Added to

this is some outstanding artwork with colour profiles of 18 subjects, coupled with examples of upper wing schemes. If you are a diorama fan then the way some of the profiles are depicted could be of help, since they show some of the machines on various tail stands and also feature chocks and a maintenance ladder.

No self-respecting World War I aviation fan should be without this 56-page reference work.

**Ernie Lee**



### North American F-100 Super Sabre Peter Davies with David W. Menard Crowood Press Ltd £29.95

Continuing its hardback aviation series, Crowood details the first of the century-series fighters. The aviation enthusiast will find out most of what he or she wants to know about the F-100 from this 174-page hardback. The first chapter

deals with the development of the aircraft but the 'meat' of the book covers its operational career. It is packed with photographs, some of which are in colour. Of course photographs are extremely useful to the modeller, and the close ups and manual illustrations will be welcome. If you are interested in data, then the list of serials, F-100 units, details of American and export machines, aircraft

losses in South East Asia, preserved ground-instructional and display airframes and even QF-100 conversion serials will delight. Appendix III is a sobering one. It lists the control procedures when using nuclear weapons on the F-100C/D.

This is a good read, as well as a fine reference, and it might even get you to pull out a 'Hun' from your kit collection.

**Ernie Lee**

### Fairey Fulmar Geoffrey Bussy Warpaint Books Ltd £11.50

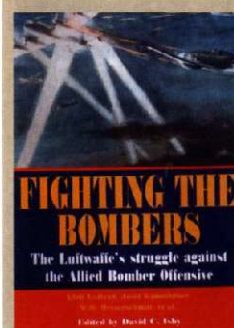
Neither the book companies nor the kit manufacturers have ever treated the Fairey Fulmar with any great enthusiasm. There have been short-run examples in both resin and plastic, but it was not until the issue of the 1:72 Vista kit, later marketed by Revell, that we had a product produced in quantity. Because of this I believe that this book will fill an important

gap for both the aviation enthusiast and the modeller. As with previous volumes, the book provides a brief development and production history, with the meat of the text dealing with the Fulmar's service. This was an aircraft of its time – the powers that be considered that fighters would need a navigator when flying from carriers. The flight scenario was that the aircraft would protect the fleet from bombers. Unfortunately, the fleet spent much of its time early in the war operating



near enough to land for the fleet to get fighter protection from land. This slow and heavy Fulmar struggled in this environment, but as usual the Fleet Air Arm managed with what it had and the operational record narrated here bears witness to that. There are plenty of photographs, 37 colour profiles and a set of 1:72 scale drawings by Ian Huntley, making this a worthwhile addition to any reference library.

**Ernie Lee**

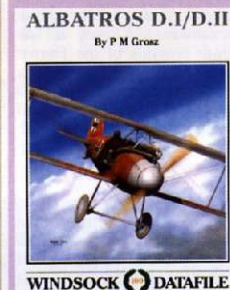


### Fighting the Bombers Edited by David C. Isby Greenhill Books £18.95

This is not a modeller's book as

such, but a serious study of German night-fighter tactics against the Allied bombing offensive of World War II. It is a collection of reports by various German personnel involved in the service. Some of these reports are actually debriefs which were undertaken after the war. One that fascinated me was a report by a night-fighter pilot who literally stood back and watched two British bombers shoot each other down. Flying at night it would have been easy to misidentify an aircraft in your vicinity. As I said previously this book is for the aviation enthusiast, not the modeller. But, since many modellers are also enthusiasts, it could fit comfortably on their shelf.

**Ernie Lee**



### Windsock Datafile 100: Albatros D.I/D.II P. M. Grosz Albatros Productions Ltd £10.50

It is nice to see that the kit manufacturers have caught up

with Windsock on this occasion. The Roden kit of the D.II has been available for some time now and any modeller building it has had to rely on the original *Datafile No. 11*, published in 1988. This new book is a much larger publication covering the D.I and D.II. The photographs of the D.II are new, as are the colour profiles – there is artwork for two D.Is and seven D.IIs – and there are also the usual 1:72 and 1:48 scale drawings. I never tire of saying that the *Windsock Datafiles* are arguably the most important and useful reference any modeller of this period can obtain. I would not dream of starting a World War I model without first checking my files for Windsock publications. Again, a first-class profile.

**Ernie Lee**

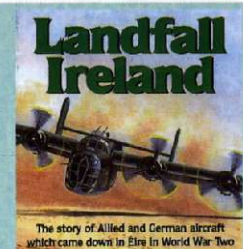
### Landfall Ireland Donal MacCarron Colourpoint Books £13.99

While it's fairly widely known that some allied aircraft found themselves unexpectedly in the Irish Republic in World War II, the extent of these navigational aberrations, and even more the similar mishaps to

German aircraft, is perhaps less familiar. Donal MacCarron, who is a well-known writer on Irish aviation, has put together the tales of 220 of the aircraft involved and the fates of their crews, the survivors of whom were, initially at least, interned. Some later found their way back to the war, overtly or

covertly. The photographs in this book would suggest a varied selection of models on a common, if not immediately apparent, theme. Some of the more serviceable aircraft were adopted by the Air Corps, and would give you a good excuse to use the Celtic Boss national marking.

**Mike McEvoy**







**In Action No 189: French Bombers of World War II**  
Alain Pelletier  
Squadron/Signal  
£8.75

This is a welcome volume, since there is not much published in the English language on this subject. With the emergence of kits of French aircraft

from the Czech Republic, more references are needed. This book follows the usual style for this series and covers the Amiot 143, Bloch 210, Farman 220 series, Bloch 131, Lioré et Olivier LeO 451, Breguet 690 series, Bloch 175 and the Amiot 350 series. This is a lot of material to compress into 49 pages, so the description of each type is brief. But, since many people buy these books as a modelling reference, in-depth descriptions may not be necessary. When modelling French aircraft of this period most of us just need some good photographs – of the

interior if possible. Each chapter covers one aircraft, giving a brief development and combat history plus a large number of photographs with comprehensive captions. There are ten colour profiles in a variety of schemes, some of which are noteworthy, including a Bloch 210 of the Rumanian air force in a disruptive scheme of green and brown, a Bloch 131 with red and white fuselage stripes denoting a target-towing aircraft and lastly a very interesting scheme, in fact it is its third scheme, of a LeO 451 which started out as a French air force machine which was later used by the Germans for

training and transport with an RLM 70/71 splinter upper surface pattern and yellow undersides. When captured by the Americans, US stars were painted over the wing crosses and the same markings were applied on a crudely painted white stripe on the fuselage. The Luftwaffe codes were left exposed beneath the stripe and, to finish it off, RAF type fin flashes covered the swastikas. This is an economical way to acquire information on French aircraft. Let's hope Squadron Signal expands the subject with a book on naval aircraft.

Ernie Lee

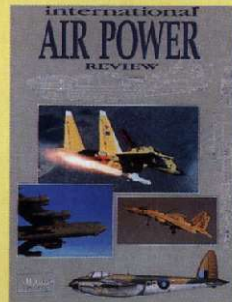
**International Air Power Review, Volume 8**  
Edited by David Donald and Daniel J. March  
AIRtime Publishing

Many modellers will have been saddened by the demise of the excellent *World Air Power Journal* and *Wings of Fame* publications. *International Air Power Review*, a journal which is actually in its third year of publication, is produced to much the same formula and by much the same team. Each volume is split roughly 60:40 in favour of modern military aircraft, with classic warplanes of an earlier age filling the remainder. Consistent features in each volume include a round-up of contemporary

news, a modern focus aircraft, an air power analysis, a variant briefing and a warplane classic focus aircraft. As an example of a typical volume, No. 8 includes debriefs on the Iranian Ya Hossein Tazavar jet trainer, the Swiss air force 'Team PC-7' and the 'Saudi Hawks' display team; the US Army's Task Force 1-25 AVN in Bosnia; Exercise Red Flag 02-04; the Su-27/30 family as the main focus aircraft, a special report on the Lithuanian air force; an air power analysis of the Former Yugoslavia; the story of Egypt's involvement in the 1967-70 War of Attrition; part one of a major variant file on the B-52; a combat colours article on

VF-51 in Korea; night-fighter, fighter-bomber and Sea Mosquito versions of de Havilland's Mosquito as a warplane classic; the story of Operation Oak, the rescue of Mussolini; and a survey of the Beriev Be-10 'Mallow'.

Anyone familiar with the earlier journals will know what standard to expect of the artwork and photography in this new publication and with authors of the calibre of Tim Ripley, Warren Thompson and John Weal contributing, there is no doubting the quality of the words. *International Air Power Review* is thoroughly recommended, both as a reference source and a fine read. It is available quarterly by subscription and through the usual specialist aviation book outlets. See AIRtime's website for further details.



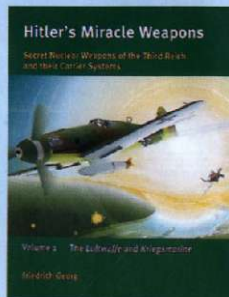
scription and through the usual specialist aviation book outlets. See AIRtime's website for further details.

Paul E. Eden

**Hitler's Miracle Weapons: Secret Nuclear Weapons of the Third Reich and Their Carrier Systems: Volume 1: The Luftwaffe and Kriegsmarine**  
Friedrich Georg  
Hellen and Company Limited  
£34.95 plus postage and packing

Do not be put off buying this book by either its relatively high price or the rather crude-looking, stylised cover illustration. By the author's own admission, much of the information contained within this book is incomplete, but it is of incredible quality and, in my estimation, importance. The basic premise behind Georg's book is that at the end of World War II the Americans seized the vast majority of information, equipment and personnel involved in the German nuclear weapons programme. This effort was then very efficiently suppressed, to the extent that only the most diligent investigation has brought it to the surface. She provides convincing evidence for a German nuclear capability as early as 1943, which could have been expressed in the form of an air-launched

gramme. This effort was then very efficiently suppressed, to the extent that only the most diligent investigation has brought it to the surface. She provides convincing evidence for a German nuclear capability as early as 1943, which could have been expressed in the form of an air-launched



weapon. Fortunately, the extreme secrecy surrounding the programme had prevented enough information from being released for the development of a suitable carrier aircraft to be taken in hand. By the time such work could be started, political events in Germany and the changing war situation prevented such a machine from being built. Nevertheless, the well documented flight of one of the Ju 390 prototypes to within 20 miles (32 km) of New York now, according to Georg's research, seems to have been connected with plans to drop a nuclear weapon on the American city. Other evidence offered in the book suggests that at least two abortive tactical nuclear strikes using specially modified Ju 87s and Bf 109s almost reached fruition.

Georg also provides

photographs of a badly damaged He 177 said to have been captured while undergoing conversion as a nuclear bomber. Many other photographs are provided to back up many of the claims made in the book, while in many cases the author has produced models of the systems and aircraft described in the text. Unfortunately, much of the model photography is of mediocre quality, but will still provide a mass of modelling inspiration. However, modelling inspiration aside, this book is one of the most important that I have read in recent years – aviation related or otherwise – and I would urge anyone interested in World War II, aviation, aircraft modelling or simply an intriguing insight into the disaster that might have been, to buy it.

Paul E. Eden

**Vampires and Fleas: A History of British Aircraft Preservation**  
Alec Brew  
Crowood Press  
£14.99

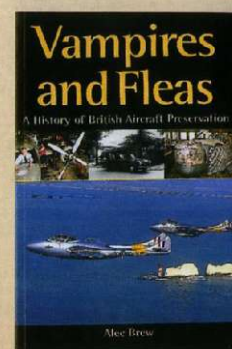
This is an unusual title for a book, but the subtitle explains it all – *A History of British Aircraft Preservation*. I have met very few modellers who have not at some time visited an aircraft museum. Once you get the bug, the search for references becomes second nature. If you are fortunate enough to live within easy reach of such establishments then there is no better way of studying

extra detail. This is a 224-page paperback, which I found very interesting. It seems that aircraft preservation goes back to just after World War I, when the Imperial War Museum was created. But in the true British tradition it was the amateur, helped by many unpaid volunteers, who created the huge number of collections found in the British Isles today. This book tells their story, museum by museum.

After the introduction, the chapters chronicle the different organisations involved through the years. For

instance, it tells the story of how the Shuttleworth Collection came into being. It is also worth noting that although London had the state museums, it was in the North that many preservation societies were born, Merseyside and Newark being two of the notable pioneers.

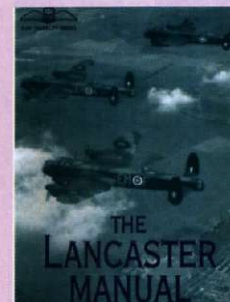
If you are interested in preserved aircraft, airworthy or otherwise, you will find hours of reading in this volume. And if you want to visit some of these sites, then there is a list at the rear of the book detailing the locations of some 107 societies.



Ernie Lee

**Greenhill Books The Lancaster Manual**  
Official Air Publications  
UK price £25

This is by far the largest book in this series, with over 500 pages. As with the others, it contains a mixture of flight and ground crew information. For the 'armchair pilot' there is nothing better, since the pilots notes are included. Now even I know what to do after an engine failure over Berlin! Frivolity aside, this is a serious refer-



ence, I have in the past wished that I had access to the relevant Air Publication when trying to find details not found in normal reference books.

For the modeller the technical drawings will be of the most help. Produced for maintenance engineers, they leave no room for guesswork, so that if you want to know how, for instance, a 4,000-lb bomb is held in place, this book will tell you. Of course some

of the drawings, such as the electrical schematics, will have limited value for the modeller, but undercarriage and cockpit detail is invaluable. And, if you like to build your aircraft as part of a diorama, then you can accurately build such things as engine removal hoists. This is the sort of information that other authors get some of their information from, so why not go to the source yourself?

Ernie Lee

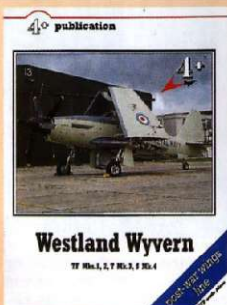
**Aviation Colouring Book 50**  
Ian Baker  
Quintet

This is a strange title, but if you know of Ian Baker's work you will not be surprised. Not for him run-of-the-mill subjects, he usually starts where the standard textbook finishes. In this booklet are five articles, some of which could be termed fringe, but come up many times in modeller's conversations. The first article covers the truly bizarre. In the

US, experiments were done with light as a camouflage medium. The idea was that aircraft would be fitted with a number of powerful lamps. One concept was that the aircraft could be illuminated to match the brightness of the sky and thus become invisible. Experimental equipment was actually fitted on two aircraft, as illustrated with drawings. The second article discusses the transition period of the US star insignia,

when the red centre became smaller, before disappearing altogether. The third article concerns the actual colour of 'sky'. This is followed by an article on the precise colour of RFC roundels. And, lastly, is an explanation as to why SEAC roundels looked blue and white, when the official colours were dark and light blue. This is a book for the modeller who likes to delve just that little bit further.

Ernie Lee



**Westland Wyvern 4+ Publications**  
Michal Ovcacik and Karel Sosa  
£9.80

This excellent profile on that most charismatic of British naval aircraft, the Westland Wyvern, does full justice to the type. As well as a history of the aircraft, a summary of variants, specifications and a production summary, the excellent text also provides a technical briefing, colours and markings notes and a guide to

weapons and equipment. The text is accompanied by a wide selection of photographs, including four pages and the outside covers in colour. These colour shots include a number of detail images. Comprehensive 1:72 scale plans cover two sides of a gatefold section, while excellent drawings of the various weapons and stores employed by the aircraft and various other systems are also illustrated. The whole package is rounded off with two pages of

tone drawings which prove that there is little variation to be had with the Wyvern from Extra Dark Sea Grey and Sky. This is a book that can be recommended to all.

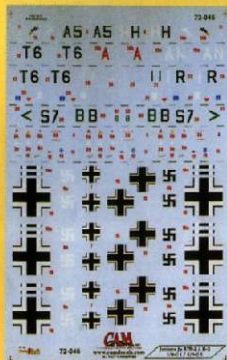
Paul E. Eden

All books reviewed by SAM are available from  
The Aviation Bookshop  
Midland Counties  
and most good book shops



Compiled by  
Paul E. Eden and  
Graham Newitt

**CAM Decals**  
72-045  
1:72 Stuka!



This set allows three out of a choice of four StG 1, StG 2 and StG 3 Ju 87B-2/R-2 aircraft to be modelled. Two of the aircraft were North Africa based, one flew in Bulgaria and one on the Russian Front.

**CAM Decals**  
72-048  
1:72 Menacing MiGs



This colourful and beautifully presented set includes full-colour instructions and sufficient markings to produce five MiG-29s. Among the aircraft depicted are two Russian MiGs and one Soviet machine, all with shark mouths, the Polish MiG-29 with the large stork

badge painted on its centre upper fuselage and a 'Fulcrum-A' of the 'Ukrainian Knights' team, as it appeared in 1994.

**CAM Decals**  
72-A008  
1:72 General Purpose  
Military Aircraft Decals



This useful sheet provides a range of stencil letters and numbers in F.S.36231 for use on US military aircraft.

**CAM Decals**  
72-A024  
1:72 General Purpose  
Military Aircraft Decals



Another useful general purpose sheet, this one provides US aircraft carrier names for the Midway to Nimitz classes in black, dark grey, F.S.36231 and F.S.36320.

**CAM Decals**  
48-105  
1:48 Menacing MiGs

This sheet covers the Soviet and Polish MiG-29s included

in sheet 72-048.



**CAM Decals**  
48-106  
1:48 Menacing MiGs



The remaining two Russian and Ukrainian MiG-29s of 72-048 are featured here.



Complete markings for four P-51D Mustangs are provided here. The aircraft featured are

**CAM Decals**  
48-117  
1:48 Thoroughbred Mustangs

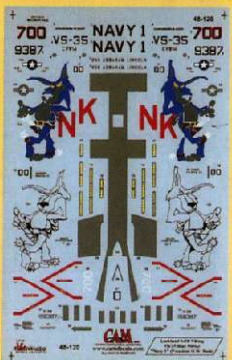
D. V. Galer's 354th FS, 355th FG *CHERRAINE*, Col Donald Blakeslee's 335th FS, 4th FG machine; Lt John McAlevy's 370th FS, 359th FG *Skeeter's Scooter*, and Art McCormick's 385th FS, 364th FG *Look Homeward Angel*.

**CAM Decals**  
48-119  
1:48 Jammin' Prowlers



A single EA-6B Prowler of VAQ-130 'Zappers' is covered on this sheet. The aircraft features a large green dragon on either side of its fin, with two spare copies of 'Robby the Dragon' also being included.

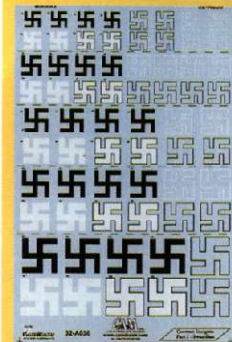
**CAM Decals**  
48-120  
1:48 George W. Bush,  
Commander in Chief



CAM Decals has moved with considerable speed to prepare this sheet, considering that the aircraft it enables you to recreate only made its his-

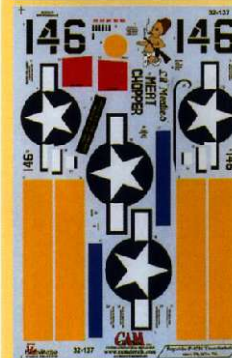
toric flight in May 2003. The sheet covers the S-3B Viking used to land President George W. Bush aboard USS *Abraham Lincoln*. As with several of the other CAM Decal sets reviewed here, it includes full-colour instructions.

**CAM Decals**  
32-A030  
1:32 General Purpose  
Military Aircraft Decals



Another general sheet, this time covering swastikas in various sizes and styles.

**CAM Decals**  
32-137  
1:32 Big and Deadly Jugs



A single P-47N is catered for on this sheet: *Lil Meaties MEAT CHOPPER* being an aircraft of the 464th FS, 507th FG on Le Shima in 1945.

**CAM Decals**  
32-146  
1:32 Menacing MiGs

The Soviet and Polish MiG-29s included in sheet 72-048 are included in this

two-sheet set.



**CAM Decals**  
32-147  
1:32 Menacing MiGs



**Scale Aircraft Modelling**

**FREE DECAL SHEET!**

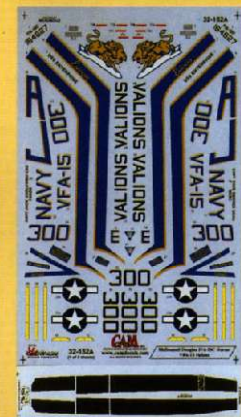
We now have a number of copies of the FREE No. 617 Squadron decal sheet. Unfortunately, we suspect that demand will outstrip the limited supply of decal sheets available to us. We are working to find a solution to this problem that will result in a fair deal for everybody concerned. Once more, our apologies for this continued inconvenience.

**CAM Decals**

**1:72 General Purpose Military Aircraft Decals**

The remaining two Russian and one Ukrainian MiG-29s of 72-048 are featured in this two-sheet set.

**CAM Decals**  
32-152  
1:32 Homet's nest



This two-sheet set includes markings for an F/A-18C marked as the CAG bird of VFA-15 'Valions', based aboard USS *Enterprise* during 2001.

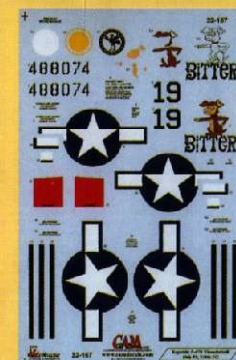
**CAM Decals**  
32-156  
1:32 Big and Deadly Jugs



This is another two-part set, this time covering an attractive yellow-trimmed P-47N *The SHELL PUSHER* of the 463rd FS, 507th FG based on Le Shima in 1945.



**CAM Decals**  
32-157  
1:32 Big and Deadly Jugs



Another of Le Shima's P-47Ns is covered on this sheet. In this case the aircraft is from the 19th FS, 319th FG and named *BITTER*. Two versions of its dog nose art are provided, one as a single piece and an alternative in three pieces for the modeller to superimpose, so avoiding any problems that might arise from poor registration during printing.



# LSA Models

New opening times for warehouse: Mon-Fri 9.00am to 5.30pm. Closed Sat.

Unit 4, Wellington House, Camden Street,  
Portsmouth, East Sussex BN41 1DU  
Tel/Fax: UK 0044 (0)1273 423523 Mobile: 07973 551470  
E-mail: [lsamodels@mcmail.com](mailto:lsamodels@mcmail.com)

Retail Shop Open Mon-Sat 9.00 to 5.30pm. Tel: 01273 705240

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Cash and Mails at £1.00 per order.  
Kix to value of £50.00 postage to max of £3.50.  
Over £50.00 FCC.  
Books £1.00.

All Overseas orders charged at cost.

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|--------------------|--------|-------|-------------------|
| 41                 | PRAGUE | FP013 | Fancy Fairy       |
| 42                 | PRAGUE | FP014 | Wendy's Fairy     |
| 43                 | PRAGUE | FP015 | Vivian's Fairy    |
| 44                 | PRAGUE | FP016 | Douglas DC-2 book |
| 45                 | PRAGUE | FP017 | Wendy's Fairy     |
| 46                 | PRAGUE | FP018 | Wendy's Fairy     |
| 47                 | PRAGUE | FP019 | Wendy's Fairy     |
| 48                 | PRAGUE | FP020 | Wendy's Fairy     |
| 49                 | PRAGUE | FP021 | Wendy's Fairy     |
| 50                 | PRAGUE | FP022 | Wendy's Fairy     |
| 51                 | PRAGUE | FP023 | Wendy's Fairy     |
| 52                 | PRAGUE | FP024 | Wendy's Fairy     |
| 53                 | PRAGUE | FP025 | Wendy's Fairy     |
| 54                 | PRAGUE | FP026 | Wendy's Fairy     |
| 55                 | PRAGUE | FP027 | Wendy's Fairy     |
| 56                 | PRAGUE | FP028 | Wendy's Fairy     |
| 57                 | PRAGUE | FP029 | Wendy's Fairy     |
| 58                 | PRAGUE | FP030 | Wendy's Fairy     |
| 59                 | PRAGUE | FP031 | Wendy's Fairy     |
| 60                 | PRAGUE | FP032 | Wendy's Fairy     |
| 61                 | PRAGUE | FP033 | Wendy's Fairy     |
| 62                 | PRAGUE | FP034 | Wendy's Fairy     |
| 63                 | PRAGUE | FP035 | Wendy's Fairy     |
| 64                 | PRAGUE | FP036 | Wendy's Fairy     |
| 65                 | PRAGUE | FP037 | Wendy's Fairy     |
| 66                 | PRAGUE | FP038 | Wendy's Fairy     |
| 67                 | PRAGUE | FP039 | Wendy's Fairy     |
| 68                 | PRAGUE | FP040 | Wendy's Fairy     |
| 69                 | PRAGUE | FP041 | Wendy's Fairy     |
| 70                 | PRAGUE | FP042 | Wendy's Fairy     |
| 71                 | PRAGUE | FP043 | Wendy's Fairy     |
| 72                 | PRAGUE | FP044 | Wendy's Fairy     |
| 73                 | PRAGUE | FP045 | Wendy's Fairy     |
| 74                 | PRAGUE | FP046 | Wendy's Fairy     |
| 75                 | PRAGUE | FP047 | Wendy's Fairy     |
| 76                 | PRAGUE | FP048 | Wendy's Fairy     |
| 77                 | PRAGUE | FP049 | Wendy's Fairy     |
| 78                 | PRAGUE | FP050 | Wendy's Fairy     |
| 79                 | PRAGUE | FP051 | Wendy's Fairy     |
| 80                 | PRAGUE | FP052 | Wendy's Fairy     |
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| 82                 | PRAGUE | FP054 | Wendy's Fairy     |
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# Mike McEvoy goes East, and then South a bit...

One of my more irritating habits, I have it on very good authority, is that I break into a subdued whistling of some tune or other without apparent provocation and the listener, probably unwillingly, has to strain to see if the tune is recognisable. Not long before writing this I was moving absent-mindedly about our living room – also known as The Gathering Room, but that's another story – and found that I'd got as far as 'tradition, tradition' before realising that I was well in to the opening number from *Fiddler on the Roof*, for no apparent reason. It then dawned on me – slowly – that I was clutching the box of my newly-acquired A Model kit of the Tupolev Tu-128, a strong contender for the 'World's Largest Interceptor' title, and known to NATO, of course, as 'Fiddler'.

Putting the odder effects of my subconscious on one side for the moment, the timing of the arrival of the kit was fortuitous; three days or so after picking it up from Colindale I was off to St Petersburg and Moscow to look at aeroplanes ancient and modern on this year's Ian Allan tour. This included among other treats the bi-annual MAKS air show at Zhukovsky and the Russian air force museum at Monino; I knew that somewhere in the latter was a Tu-128, or at least there had been in the mid-1990s when Bob Ogden compiled Volume 9 of his aviation museums series, and Colin Prentice took the photos for the Airline picture book. So I thought I could do something of a photo walk-round before settling down to the kit, even though I doubted – correctly – that I would get a look inside the cockpit.

## St Petersburg

First, though, St Petersburg, and the unexpected treat of a trip along the Neva in a MII-8 (will whatever succeeds it be a 'Hip' replacement?) before landing in the grounds of the



Peter and Paul fortress, which may mean I'll have to dig out the Bilek/Italeri kit from the shelves. But the fun flight was from Rzevka, a nearby GA airfield, in the back seat of a Yak-18T in the sure knowledge that, as I told everybody, I could pick up the A Model kit when I got home and finish it in the rather vivid yellow and green scheme (with red trim) of RA-44270, and so I took the necessary photos. Imagine my mortification then, when I returned and found out that there was no such kit, even in the catalogue, especially as I could have

described the box art in some detail. I'm not sure whether this vision was just wishful thinking, or a more sinister variant of a senior moment.

The first day at the air show was distinctly soggy, not helped by my having packed sandals rather than shoes for the Russian summer weather! But I proceeded slowly, camera in hand, along the static line-up and was rewarded with a selection of 'Flankers', a pair of 'Frogfeet' ('Frogfoots'?) and some 'Fulcras' – I knew that classical education would come in handy one day. Both the MiG

and Sukhoi line-ups included the naval versions of their fighters, and the latest variant on the MiG-29, the MiG-29SMT wearing the letters MRCA writ large across its fins to emphasise its versatility and give older members of the tour, and followers of Les Barker, a touch of déjà vu. Of the colour schemes, I was very taken with the greys on Su-27SM '501' which reminded me of the 'Berlin' scheme worn by Chieftain tanks in the '70s (see the one at Duxford), and the blues on the Su-32 'Platypus', which has always



held an ugly duckling appeal for me. The Sukhoi S-37 Berkut was, to my regret, not included in the line, but it did appear for the flying display on the following day in a four-some with three assorted 'Flankers'. The Berkut has now been awarded the air force designation Su-47, and this was reflected in some of the re-boxed Zvezda kits on sale from some of the many booths that blossomed in the Friday sunshine. Knowing my liking for the odder shapes, you will not be surprised to learn that I thought that the sight of this alone, taxiing and airborne, made my journey really necessary. And the sight of the 'Russian Knights' Sukhois discharging their flares was impressive too.

## Monino museum

The visit to the Russian Air Force Museum at Monino was, therefore, a major bonus. The last, or perhaps last but one, of the world's major aircraft museums that I've planned to visit in my 'retirement', it was totally fascinating, enabling me to see types that I would otherwise have been forever in my men-

tal files as photographs, several of them slightly blurred. Some of the types there have almost mythical status, like the monstrous Myasischev 'Bomber' that fluttered some major Western dovescotes when it took part in a flypast over Red Square, and the 'Bison', two of the larger aircraft on display. Most of the aircraft are perforce kept outside, and while there are some rather battered and worn airframes tucked away at the back of the compound – with a pair of large and noisy dogs to discourage undue interest – that have suffered considerable depreciation from time and exposure, the majority of the aircraft on display are in acceptable nick (show me a museum anywhere in the world, with the possible exception of Dayton and Pensacola, that gets sufficient funding for all its exhibits to be of show-room quality).

There is a smallish hangar sheltering a few of the older exhibits; these include a Voisin, a Sopwith Triplane and a replica of the Ilya Moumourets, emphasising the Russian penchant for the

seriously large that goes right back to the start of its military aviation. There are some aircraft from the Great Patriotic War on show outside, including a Pe-2, a Tu-2 and a DB-3 (all available somewhere in kit form), as well as a Boston, a Mitchell and a Kingcobra. But what I found totally fascinating were the jets, from the MiG-9 and the Yak-15 and its siblings to the 'Fishpots', 'Fagons' and 'Brewers'; in view of the selection of Yakovlev twin-jets now available from A Model I might try to persuade the Editor to devote a page to the photos of these last, including the high-altitude 'Mandrake'.

Mike McEvoy

I was talking about the appeal of these aircraft to the tour leader, and he pointed out that these appeared over the same period that produced a proliferation of types, largely in prototype form, in Europe and the US as well, and while there was the odd dead end most of them revealed some form of visible progression in aircraft shape, usually incremental. At Monino many of the 'families' were lined up together, sometimes in chronological order, and it was instructive to walk along the line noting the changes. One little surprise to me was the Lavochkin La-017; its existence became known to the West about the same time as that of the MiG-15, which apart from having a high, rather than mid-set wing, it strongly resembled. I remember clearly the two 'Veron' balsa solid model kits of these aircraft, both with turned wooden fuselages and faithfully reflecting the view of the time that the MiG was the smaller of the two. But the La-17 on display was quite a small aircraft, bringing to mind the single-seat Vampire, in that it was something the driver strapped on following his parachute.

You will have realised that the trip has made a considerable impression on me, particularly the static line at the air display and the expanse and contents of the Russian Air Force Museum. If I'm not careful, I can see another 'major interest' developing. Given the kits of relevant aircraft that I've diligently picked up since my return I have vague, but worrying, thoughts of seeing whole sections of Monino forming around the fringes of my workbench; but that would be as foolish, and as uncertain, as a 'Fiddler' on the Roof!









04384 1:72 Dassault-Breguet Atlantic 1



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