

PAMAG Ltd., 22 Slayleigh Avenue, SHEFFIELD S10 3RB, England.

**ASSEMBLY DRAWING.**  
 Bristol BRIGAND B.M.K. 1.  
 © HALLAM-VAC. 1986.  
 brian a.marshall.

# HALLAM-VAC Kit No 502 BRISTOL BRIGAND B Mk 1

## Details of the aircraft.

The Brigand was designed to replace the Beaufighter as a torpedo bomber. Although the initial designing commenced in 1944 the aircraft never saw combat during WW2 and it was only during the campaign in Malaya during 1950 to 1954 that the Brigand was actually used against guerilla forces.

The machine was the last piston engined light bomber to see service with the Royal Air Force. It was developed from the Buckingham which was first started in 1942. In total some 147 examples of the Brigand were made.

## Specification:

Span: 72ft 4in  
Length: 46ft 5in  
Height: 17ft 6in  
Power Plants: 2 x Bristol Centaurus 57s, 18 cylinder  
aircooled radial 2470 hp each.  
Armament: 4 x 20 mm cannon; 2000 lbs of bombs.  
Max Speed: 358 mph at 16000 ft  
Max loaded weight: 39000lbs  
Range: 1980 miles  
Crew: 3.

**Acknowledgements**  
PAMAG (Publications) Ltd acknowledge with grateful thanks the expert advice and assistance of **AEROCUB MODELS** in the preparation of this kit, and to Brian A Marshall for the very fine artwork.

This is the second model in the HALLAM VAC range. The first model No 501 is the **WESTLAND WELKIN F Mk 1** which is still available from the manufacturers for £5.60 plus 10% UK for postages/packing or 20% overseas surface or 40% airmail. Please send your requests to :-

**HALLAM VAC - PAMAG (Publications) Ltd**  
22 Slayleigh Avenue  
SHEFFIELD S10 3RB  
ENGLAND

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## General Guide to the Construction of this kit.

Using a new sharp scalpel blade (a Swann Morton No 10A blade is recommended) score round the parts on the plastic sheet. Use a steel ruler or straight edge as a guide when scoring round the wing leading and trailing edges and make the score as near as possible to the edge of the part. Gently break away the excess plastic by finger pressure. Take your time over this cutting out and do it accurately — you will find that this will pay-off later. During the moulding processes you may find small "dimples" on the model parts. Gently remove these with a sharp blade and polish the surface of the plastic with fine wet n'dry emery paper. If any panel lines are removed when you have done this re-engage them carefully with a scalpel blade point or dental tool

Next gently rub the flat edges of each part on a piece of medium emery paper (wet n'dry) 240 grade which has been taped to a flat board or a piece of plate glass. Most magazine articles on vacform construction recommend that the emery paper should be wet (plenty of water) during this operation, and this certainly works well, but the author now actually prefers to do this sanding down on dry emery paper.

Each part should be sanded so that it will match its partner precisely and a good join achieved. About 1mm of plastic needs to be removed in most cases although along the fuselage halves approx. 1mm will have to be taken off. Spend time making sure that the trailing edges of the wing components and the fins and tailplanes are really sharp. Careful attention to this detail will give your model that professional look and admirers may say that they thought the model was from an injection kit. Generally speaking when you think you have achieved the required thinness and sharpness give each part yet a further gentle sanding on the wet n'dry.

Carefully check each part against the plans in the kit. If too much plastic is removed a silver of scrap plastic can be cemented back and, when this is dry, the sanding re-done. The secret of successful vacform modelling lies in these initial steps in the construction. Take your time; prepare each component carefully. If this is done then the actual making of the model is similar to a conventional "AIRFIX" type aircraft model.

### Fuselage

Before joining the two fuselage halves together cut out the slot in the wing rib position. This will allow the main wing spar to be fixed through the fuselage and allow the wings to be attached firmly. Cut several small pieces of scrap plastic card approx  $\frac{1}{2}$ " x  $\frac{3}{8}$ " and cement inside one half (see exploded diagram). Make the cockpit floor from scrap (or if you look very closely at the kit plastic you may be able to detect the outline of a floor and two fuselage formers) and mount in the fuselage. A cast metal pilots seat and control column are included in the kit; paint these matt black. Make an instrument panel from scrap plastic, paint black with white dials and mount in the fuselage in line with the front of the cockpit canopy. Add small strips of masking tape to simulate seat belts. Other cockpit detail such as a navigators table which was mounted between the main front and rear wing spars may be added. The front wing spar position is that used in the kit, the rear spar passes through the fuselage in line with the rear of the canopy. Join the two fuselage halves together (hold them together with thin strips of tape) and flood the join with a small amount of liquid cement. Put on one side to dry (overnight). Cut out the slot for the elevator (horizontal tailplane)

### Engine nacelles

Very carefully sand out the air intake in the front of the cowling with constant reference to the front view drawing on the scale plans provided.

The engine nacelles are paired. Look for a small letter 'P' which is marked on the position of the side air intakes. These two form the port nacelle. The other pair the starboard nacelle. The blanking off circles are the two discs on the plastic sheet next to the wheels. These blanking off pieces form the hub for the propeller shaft. Drill out the centre hole. Carefully cut out the undercarriage doors from the nacelle pieces marking each one with pencil to indicate its relocation position. Cement the blanking off piece into one nacelle half. Carefully epoxy or instant glue one of the white metal cooling fans (after careful cleaning up with emery paper and removal of the moulding ring) to the front of this piece so that the cooling blade fan lines up with the front of the cowling intake. Then cement the nacelle halves together. When dry trim away excess plastic so that the nacelle fits snugly on to the underside of the wing. If this is done carefully very little filler paste will be necessary.

Repeat for the other nacelle

### Tailplane and fins/rudders

Cement the various halves together with liquid cement and put on one side to dry.

### Wings

Score the bottom halves at the dihedral break and bend up the outer panel by finger pressure so that it conforms to the small amount of dihedral incorporated in the top wing half moulding. Carefully cement the two wing halves together. If these parts have been prepared with care then no filler at all should be required. When dry the engine nacelles can be cemented in place. A little filler will be necessary between the engine nacelles and the top wing leading edge fairing and on top of the nacelles at the wing trailing edge. Allow to dry.

Trim the wing roots so that the wings match the scale plan drawing.

### Wheels

Carefully cement the wheel halves together and allow to dry. Finish with fine wet ndry. Drill a centre hole for the shaft. You may find it an advantage to insert a brass or aluminium tube through the wheel so that it will be free running on the shaft.

### Assembly

The use of **Loctite Super Glue Xtra** and **Humbrol Liquid Poly** is recommended to cement the various part together. Take care with the Loctite since it is a cyanacrylate and bonds very quickly. 5 minute **Araldite** epoxy is useful for gluing metal parts.

Carefully cut out a wing spar from scrap plastic card. Insert through the fuselage and cement in place. Allow to dry. Slide the wing halves on to the spar adjusting them so that they join the fuselage correctly and match the top and front views on the 3 view drawing provided.

Cement in place and allow to dry

Cement the horizontal tailplane in place and allow to dry

Cement the fins/rudders in place and allow to dry.

Carefully check the model over, smooth out all joints with fine wet ndry and fill any cracks/imperfections with Milliput, **Humbrol** or other commercial filler paste. Use only small amounts.

Rescribe any surface detail which may have been lost during construction.

Make up the undercarriage from the metal parts supplied. Cement two lengths of plastic tube 18mm long vertically in each nacelle between the wing leading edge and the front of the undercarriage bay. These two tubes should be 11 mm apart.

It is recommended that these two tubes are epoxied in place. When dry the metal undercarriage legs can be firmly epoxied into these tubes forming a firm seating for the u/c unit. Various cross braces from stretched sprue or fine wire can be epoxied to the main u/c legs. The tailwheel leg is similarly epoxied into a tube cemented into the rear fuselage.

Add the various metal parts supplied. e.g air intakes on each side of the nacelles.

### Painting and Finishing

Carefully paint the cockpit interior matt black. Add detail as required. Trim the cockpit canopy carefully with fine scissors so that it fits snugly onto the fuselage. Cement in place with white PVA glue. Allow to dry.

Mask off the canopy and spray the topside of the aircraft with white enamel. Allow to dry for at least six hours. Mask off the topside of the aircraft and spray the underside and other parts (see 3 view drawing) matt black. Allow to dry.

Recommended paints are **HUMBROL** but other commercial enamels e.g DBI, Precision, Revell, Tamiya, Pactra, Testors, Heller etc may be used. Some acrylic paints are useful and can be recommended.

Allow to dry and remove masking.

Paint canopy frames with a fine brush.

Add the D/F loop (metal part or clear plastic) to the top of the canopy.

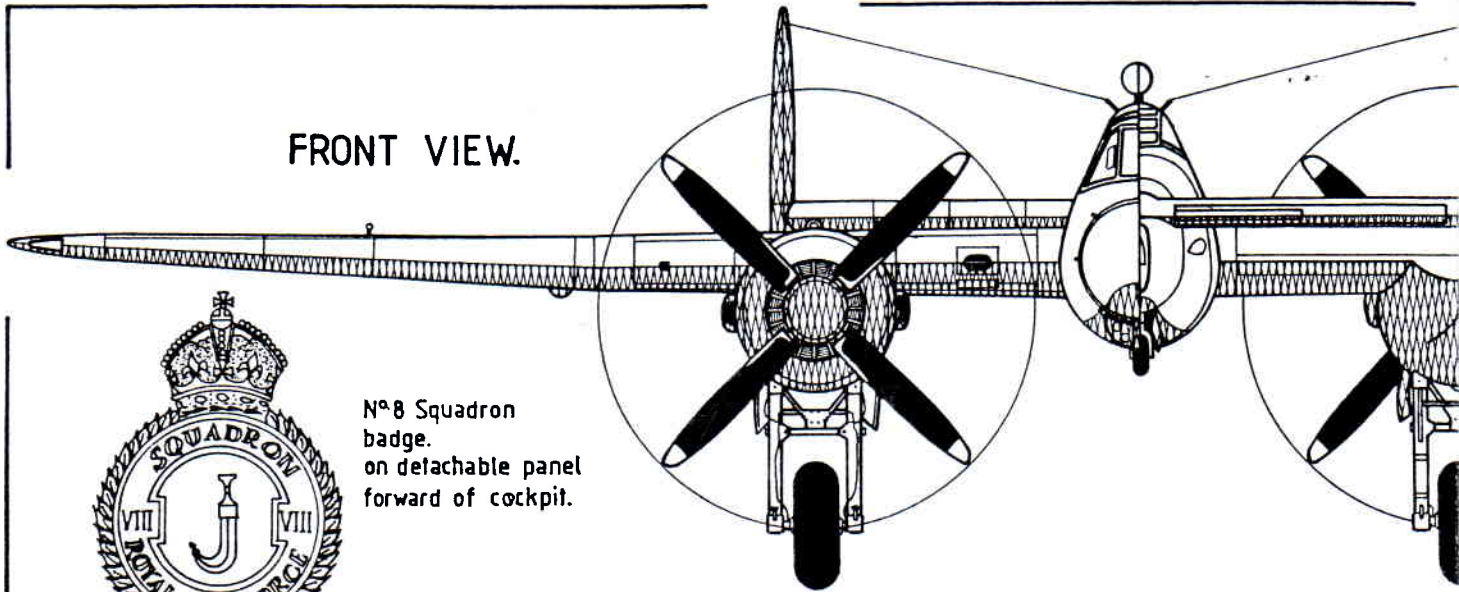
Clean up the propellers with fine wet ndry. Paint matt black with yellow tips.

Spray the entire model with Johnsons Klear acrylic polish (Future Wax in the USA). Allow to dry. Add decals (from the spares box) or from the **MODELDECAL** range. When dry mask off the canopy and spray the entire model with matt varnish e.g Humbrol of Microscale.

Various other small details can now be added.

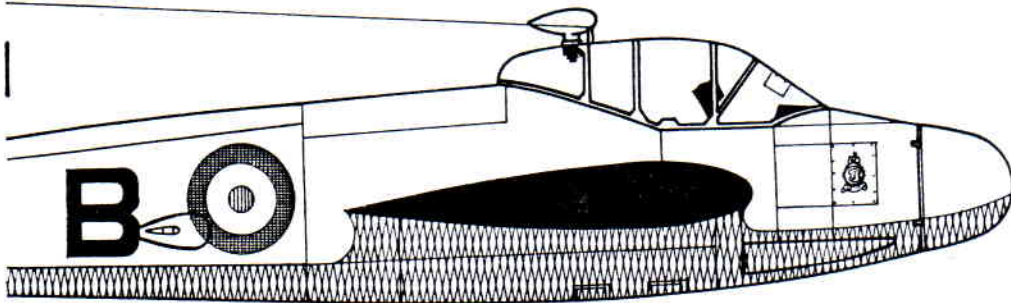
Model is now complete.

FRONT VIEW.



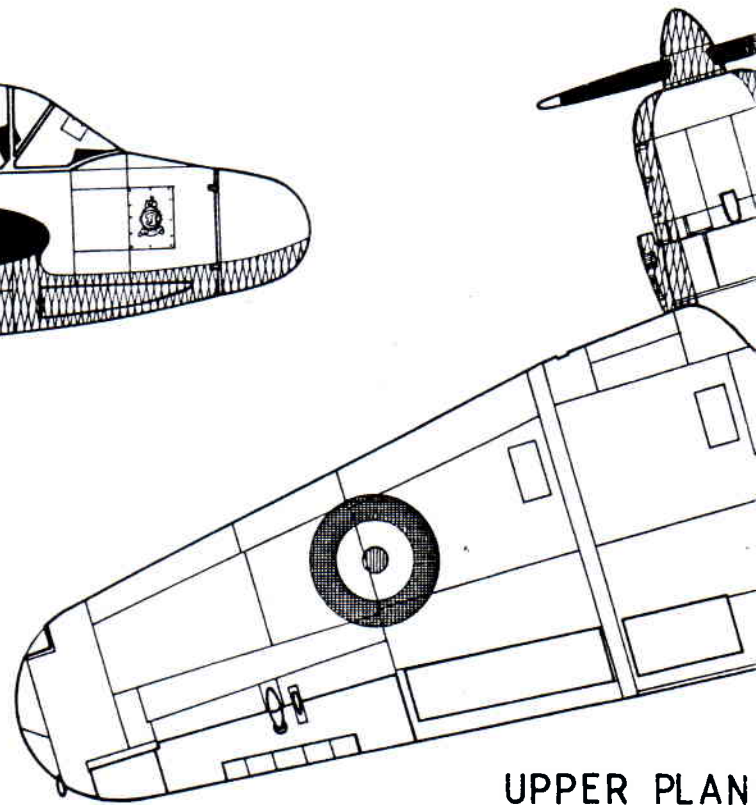
N°8 Squadron badge. on detachable panel forward of cockpit.

'USPIAM ET PASSIM' Everywhere Unbounded.



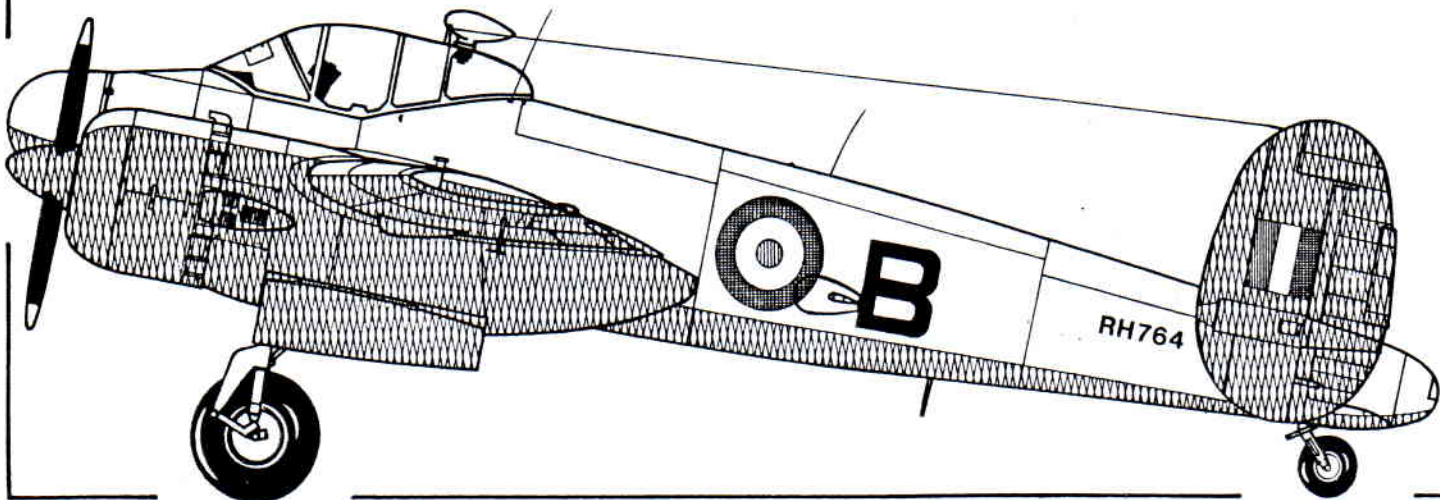
STARBOARD NOSE DETAIL.

showing recessed gun troughs and position of squadron badge.

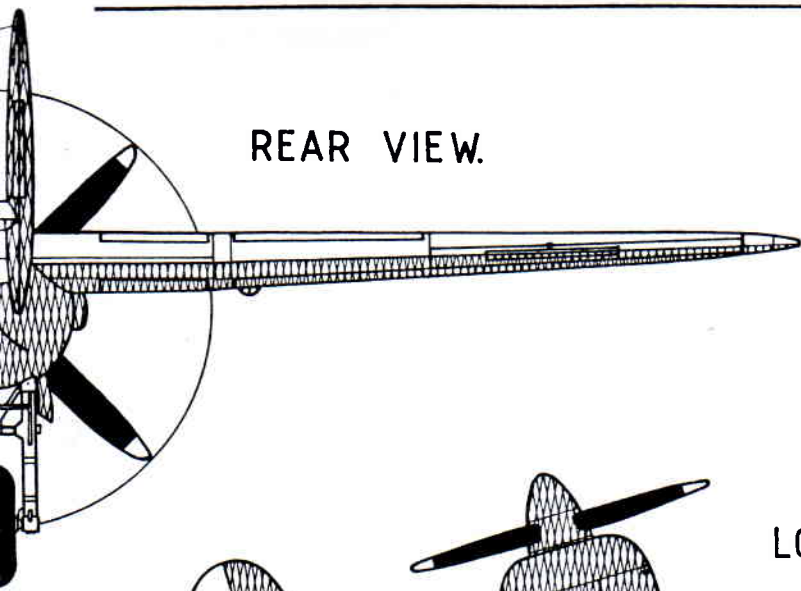


UPPER PLAN

PORT SIDE VIEW.



REAR VIEW.

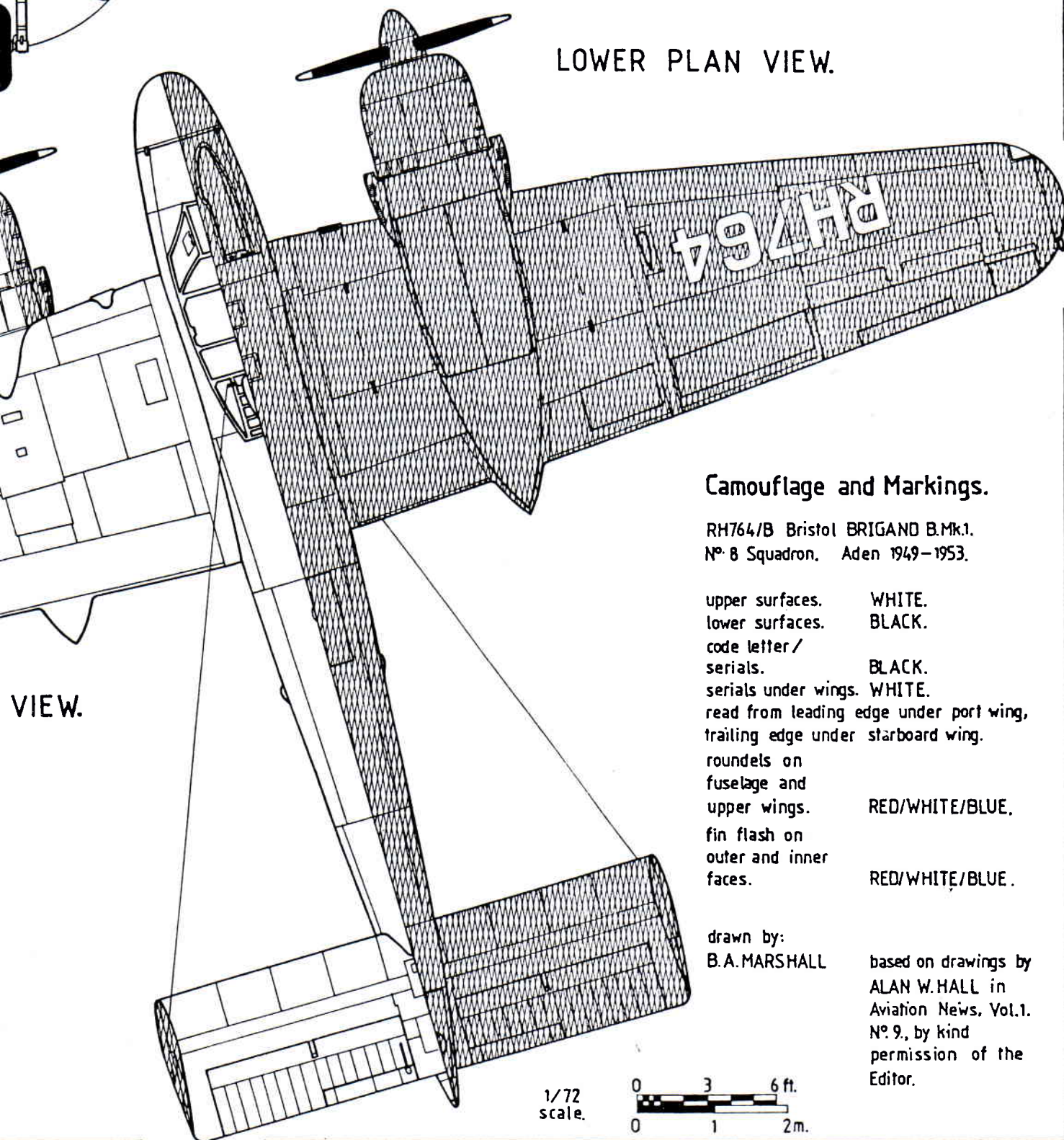


# HALLAM - VAC

1/72nd Scale Model Aircraft Kits.

BRISTOL BRIGAND B.Mk.1  
(pattern N°502)

LOWER PLAN VIEW.



## Camouflage and Markings.

RH764/B Bristol BRIGAND B.Mk.1.  
N° 8 Squadron. Aden 1949-1953.

- upper surfaces.      WHITE.
- lower surfaces.     BLACK.
- code letter /  
serials.              BLACK.
- serials under wings. WHITE.
- read from leading edge under port wing,  
trailing edge under starboard wing.
- roundels on  
fuselage and  
upper wings.        RED/WHITE/BLUE.
- fin flash on  
outer and inner  
faces.                RED/WHITE/BLUE.

drawn by:  
B.A. MARSHALL

based on drawings by  
ALAN W. HALL in  
Aviation News, Vol.1.  
N° 9, by kind  
permission of the  
Editor.

1/72  
scale.

