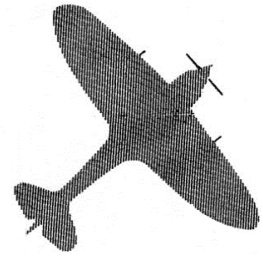
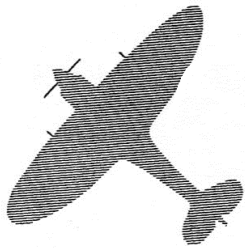
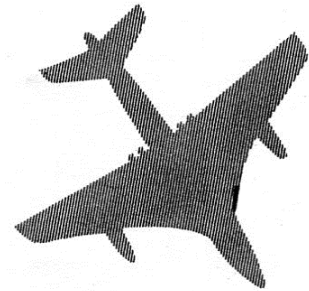
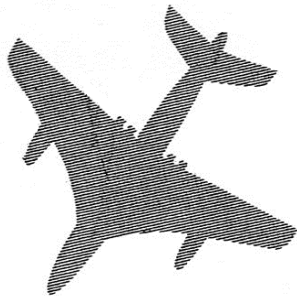


SQUADRON
543



TWENTY FIFTH

ANNIVERSARY



543 SQUADRON HISTORY

COMPILED BY

FS R. W. ELLIOTT

543 SQUADRON

INTRODUCTION

BY

WING COMMANDER R.H. McV REDFERN


1. I am delighted to have the opportunity of introducing to you this booklet which has been written to commemorate the 25th anniversary of the formation of No 543 Squadron.
2. Although the Squadron has not had 25 years continuous service, it has always been engaged in photographic reconnaissance duties, both at home and overseas, a productive task, vital and rewarding.
3. As the sole long-range photographic reconnaissance squadron in the Service we are conscious of our traditions and responsibilities, and I hope this booklet will give the reader an idea of our tasks, methods and equipment which, in the hands of skilled aircrew and ground crew, enables us to achieve a high standard of operational efficiency.

A handwritten signature in black ink, appearing to read 'R.H. McV Redfern', with a long horizontal flourish extending to the right.

(R.H. Mc V. Redfern)
Wing Commander
Officer Commanding
No 543 Squadron

ACKNOWLEDGEMENT

I should like to express my thanks to all those concerned with the production of this publication, in particular to the staff of the Air Historical Branch for allowing access to their records, to Mrs Osborne, wife of Flying Officer R.W. Osborne from whose suggestion the cover was designed, to the staff of Clerical Services Flight, Wyton, for their typing and to JARIC (UK) for the printing. Without their assistance this history would not have been produced.

A handwritten signature in black ink, reading "R W Elliott". The signature is written in a cursive style with a long horizontal stroke at the end.

R.W. ELLIOTT
Flight Sergeant
No 543 Squadron

CHAPTER 1

INTRODUCTION

In 1937 the German General Von Fritsch declared that “the military organisation with the best photographic reconnaissance will win the next war.” Very true words. The General was doubtless of the opinion that the military organisation he referred to was German. Good as the German photographic reconnaissance organisation was, the British proved better, in both World Wars in fact.

Prior to the First World War, No 3 Squadron RFC had conducted experiments in Air to Ground photography fairly successfully. Even prior to that, photographs had been taken from balloons and kites, but the bulky cameras and slow plates of those days did not allow very good results. Thanks to the pioneer efforts of the RFC in particular, work by Colonel Moore-Brabazon (later Lord Brabazon of Tara), the British High Command had complete photographic coverage of the enemy trench system and back areas almost continuously throughout the War.

Between the Wars, photographic reconnaissance duties were carried out as in the First War, by bombers and Army co-operation aircraft, with continuous improvement in equipment and methods.

Gradually it was realised that due to the vulnerability of those types of aircraft, it would have to be carried out by aircraft of superior performance, operating with specialised units.

The idea of a specialised photographic reconnaissance organisation had been proposed in March 1939, and shortly after the outbreak of War a special unit for such duties had been established at Heston, Middlesex.

Known as the Heston Special Flight, it operated Blenheim aircraft, and the Commanding Officer's private aircraft, a Lockheed 12A. Wg Cdr Cotton, OC the Special Flight, realised that modified Spitfire aircraft would be very suitable, having a far superior performance to the Blenheim. Despite opposition from the experts who said it could not be done, some Spitfires were successfully modified for the PR role, thanks to the excellent work of Flt Lt M. Longbottom. The type was used very successfully in France 1939-40, its losses doing PR duties being almost nil in contrast to the inferior Blenheims and Battles.

After June 1940, with the whole of the continent in enemy hands and invasion likely, PR work was given high priority. The Heston Flight expanded, became known as the Photographic Development Unit and moved to Benson, Oxfordshire. Control passed from Fighter to Coastal Command on 18th June 1940. The Unit was later renamed, becoming No 1 Photographic Reconnaissance Unit but further expansion in 1942 led to the decision to disband the Unit and split up the work between 5 new squadrons, Nos 540 to 544. The Headquarters of the squadrons remained at Benson, whilst they operated mainly from Leuchars, Wick and St Eval. It is with the story of No 543 Squadron that we are now concerned; this squadron alone continues to carry on its old number and tradition of the former squadrons that comprise the home based PR force.

CHAPTER 2

543 Squadron formed at Benson on 19th October 1942, following the disbanding of No 1 PRU with Squadron Leader A.E. Hill, DSO, DFC as Commanding Officer.

The Squadron consisted of an operational flight `A` at St Eval under Flt Lt E.D.I. Lee with Fg Off D.K. McCuaig as his deputy, Plt Off G.B.D. Greenwood, FS Reeves and Sgts R.J. Watson, B.L. Miller and V.I. Gorrill being the other pilots.

`B` Flight and the Squadron Headquarters remained at Benson, the duties of this flight being mainly training, test flying and development work. Flt Lt F.A. Robinson, DFC was the flight commander, Fg Off R.P. Johnson deputy flight commander, the other pilots being Plt Off J.H. Shelmerdine, Plt Off A. G. Paws, Plt Off F.Y. Ladbroke, WO J.W. Payne and Sgts J. E. Thompson, R.M. Snowdon, R. P. Luepke, with FS Wilcox as NCO i/c Maintenance. Total strength all ranks was 103, against an establishment of 140. `B` Flight operated at first from Mount Farm, a satellite airfield to Benson until it was handed over to the USAAF.

The squadron operated Spitfire PR IV aircraft, these had previously been on No 1 PRU.

The squadron duties as far as `A` Flight was concerned consisted of photographic reconnaissance and bomb damage assessment, sorties being carried out by aircraft operating singly and at high altitude, the area of operations usually the French coast and adjacent areas from the Spanish frontier to the Pas de Calais.

Operations commenced at once, one of the first being a sortie to Calais by Sgt Thompson in BR 658, this was unsuccessful, due to cloud cover over the target area, a constant hazard to successful photography. Two days after the squadron's formation the CO, Sqn Ldr Hill, undertook a sortie that had been allocated to No 542 Squadron using one of that squadron's aircraft, AD 121, also a Spitfire PR IV. The target was Le Creusot, unfortunately the aircraft failed to return and the CO was posted as 'missing, believed killed.'

On the 24th October Flt Lt G.E. Hughes DFC took over command and was promoted to Acting Squadron Leader. Another early loss for the squadron was Sgt Luepke who failed to return from his first operational flight, a sortie to Cherbourg on 27th October.

In November, new equipment in the form of a later mark of Spitfire, the MK IX, was tried out by the squadron. Flt Lt P. A. Robinson flew the first sortie of this Mark, number BS 437, to Cherbourg on 8th November. This version, unlike the Mark PR IV, was armed, carrying two 20 mm cannon, but on this sortie was virtually defenseless, on testing the guns the port one fired one round only. The camera fitted was one F.52 type with 36" lens, additional fuel amounting to 90 gallons was carried in a drop tank. Apart from the armament failure the sortie produced good photographic results. It was repeated the next day, same target, but the guns jammed once again. The fault seems to have been successfully cured, the aircraft went to Aachen on the 10th November, on a bomb damage assessment sortie, but cloud obscured the target, a frequent occurrence. Service at home too, had its moments! The squadron record book records that on 13th November Plt Off Ladbroke turned up for light duties having been bombed out of hospital at Torquay, pending re-admission to another hospital.

Sorties were undertaken to the Spanish coast, looking out for blockade runners. On 23rd

November FS Reeves went in AD 423 for a successful sortie to Bilbao, on 1st December Sgt Watson went in AD 424 to El Perrol and Vigo, this sortie, a lengthy one for a Spitfire, lasted from 1052 hours to 1605 hours. Again good results were obtained.

Other targets at this time were to Bordeaux, La Pallice, Nantes, Hendaye and the Channel Islands. Close watch being kept on German naval units and all shipping activity. 1943 saw a poor start to the year as regards weather, a very necessary ally for photographic work. Operations continued when circumstances permitted. On 8th January, Sgt Martin was briefed for a sortie to Ghent, Bruges, Zeebrugge, Ostend and Zvevegelle, but was recalled due to a 'sweep' by our fighter aircraft in the area.

A change of command took place on the 8th February when Sqn Ldr Hughes was posted to 540 squadron, his place being taken by Flt Lt F.A. Robinson DFC, the 'B' Flight Commander, who was duly promoted to Squadron Leader.

The same month saw the loss of two pilots. On the 13th Fg Off Greenwood failed to return from a sortie to Lorient in AA 809, and on the 28th Sgt C.H. Evans failed to return from a sortie to Bordeaux in AD 128. The same day the squadron carried out a successful damage assessment sortie for the USAAF to Brest following a daylight raid by B 17 aircraft to that port.

March, April, May 1943 - usual run of sorties to the usual places, a typical one being to Hendaye on the 14th May, outward route being Biarritz, Bayonne, St Jean do Luz, Hendaye. The return route lay over Trux, St Jean de Luz, Biarritz and Bayonne, thence back to base at St Eval.

Pilots had a certain amount of discretion allowed them, should the primary target be cloud obscured, advantage was taken whenever possible of a clear area, very rarely did the cameras have no tale to tell. An idea how weather hindered operations may be obtained from the fact that in May 1943 no sorties were possible on the 5th, 6th, 8th to 12th, 22nd to 24th, 26th, 27th, 29th and 31st. June brought no improvement at first, in fact the first sortie was not undertaken until the 5th when Plt Off Reeves went to Bordeaux and La Pallice.

On the 18th June, some recognition of the good work put in by the ground crews was made, a Mention in Dispatches" being awarded to 532215 Sgt C.R. Beer, Fitter 2A and FS W.J. Prickett, Fitter 2E.

On July 3rd the squadron lost Fg Off H.J. Rothwell returning from a sortie to Lannion. He called up when 40 miles off the English coast reporting engine trouble and that he would have to abandon the aircraft. The Air Sea Rescue Service was alerted, but on searching the estimated area oil streaks were sighted, but no sign of pilot or aircraft.

In August, on the 16th, no less than 7 sorties were undertaken in the one day - being:

Flt Lt McCuaig to Bordeaux, but returned with engine trouble.

FS Webb to Pont du Raz and Concarneau.

FS Campbell to St Nazaire and Brest.

Flt Lt Storey to Paimpol & Perros Guirec

FS Webb undertook a second sortie to St Nazaire,

Flt Lt McGuaig also made a second sortie to La Pallice.

CHAPTER 3

In September 1943 there occurred the most interesting episode of 543's brief career, the detachment of three aircraft to Russia, to undertake PR tasks in support of Operation Source. This was the midget submarine attack by the British Navy on the Tirpitz, Lutzow and Scharnhorst, German capital ships, the former in Kaa Fjord, the latter two in Alta Fjord, Northern Norway, where they constituted a grave threat to our convoys taking supplies to Russia.

After a brief training period the aircraft, Spitfire Mk PR IVs piloted by Sqn Ldr Robinson, Fg Off Dixon and Fg Off Kenwright, left Sumburgh on 3rd September for Vaenga, a distance of some 1400 miles. The aircraft flew singly; journey time was some 5 hours. The fact that fuel was marginal may be learnt from the fact that Fg Off Kenwright's engine cut out during taxiing to the dispersal and the aircraft had to be manhandled in.

The ground party had left the UK by sea in August, under Plt Off Trapp, photographic interpreter. WO Anderson was in charge of Maintenance. Under him was a party of 9 men of airframe, engine, electrical, instrument, wireless and photographic trades.

Liaison with the Russian authorities and preparations for the detachment was provided by personnel of 30 Mission - Wg Cdr Harphon, with Flt Lt Clark, equipment officer, Sgt Johnson and Cpl Loxley. The latter NCO was the detachment transport driver.

Accommodation was provided in wooden barracks at Grasnaya on the Kola Inlet near the airfield at Vaenga, which the detachment found satisfactory. Off duty activities were fishing and trips in a motor launch. The Russian in charge of this had but a slight knowledge of diesel engines and it was usually unserviceable.

Photographic processing was undertaken in a Brownhall Prime Mover - a mobile darkroom trailer which was a legacy from an earlier RAF PR detachment. This item had to be towed from Murmansk to Grasnaya, the engine having been stripped by the Russians for spares. Facilities provided by the trailer were quite good, apart from a spell of dampness about the 9th September which necessitated a drying room for the prints being provided in the Airmen's billets.

Two more photographic interpreters Fg Off Eyre and Fg Off Hodsman, arrived by Catalina flying boat. They had left Woodhaven on 7th September for Sullom Voe, proceeding the following day to Grasnaya.

Most of the sorties were flown at some 21,000 feet, where little enemy opposition was encountered. Aircraft serviceability remained good until 16th October, when BR 658 went unserviceable with a cracked exhaust manifold. No difficulties were experienced with the supply of fuel oil or coolant.

Radio aids were scanty, a mobile VHF set with a range of some 50 miles operated by a Russian Sergeant with a slight knowledge of English was positioned 3 miles South West of the airfield.

In addition to film processing on the site, first stage photographic interpretation was undertaken. The prints were rushed to England by Catalina.

31 sorties in all were flown, of which 25 were successful, and 6 unsuccessful. A total of 66 films were developed, 3525 prints made and the longest film had 235 exposures. The cameras used were F.24 with 14" lens.

No camera or processing failures occurred, certainly a tribute to the photographic staff who were working under somewhat crude conditions.

Relations with the Russians were cordial, but they were not keen to fraternise. An invitation to a party held by the RAF personnel was declined at the last minute and an attempt at liaison with Russian photographic reconnaissance personnel was also unsuccessful.

The detachment was reported having good food, but mail, another important aid to morale and well-being, was not forthcoming. In fact, no mail at all was received during the period of their stay in Russia.

The last sortie was flown on the 20th October. Arrangements were then made for all the aircraft, spares and, ground equipment to be handed over to the Russians, who were given instruction in their use. All personnel left by sea on the 1st November, sailing in a convoy escort ship which arrived at a UK port on the 11th.

Meanwhile at home, the squadron, which had been commanded by Flt Lt R. C. Cusson in the absence of Sqn Ldr F.A. Robinson on detachment, had carried out its last sortie on 17th October when FS H. Brindle went to Brest. It disbanded the next day.

'A' Flight's work at St Eval was taken over by 541 Sqn who took over some of the 543 Sqn aircraft and pilots. The remainder went to 542 Sqn. 'B' Flight became 309 Ferry Training and Aircraft Dispatch Unit, thus carrying on the Flight's training role and remaining stationed at Benson. Ground crews were posted to 542 and 544 squadrons and some to form the nucleus of 309 F.T. and A. D.U.

For their work on the Squadron the ground crew SNCOs were "mentioned in dispatches". Flt Lt E. D. L Lee received a DFC on 16th April 1943; and Sqn Ldr Robinson, who was posted to 8(C) OTU Dyce, received "The Order of the Patriotic War, 1st Class", for services on the Russian detachment.

CHAPTER 4

543 Squadron was reformed at RAF Gaydon on 24th September 1955 and was equipped with the first of the `V` Bombers to enter Service, the Valiant. These aircraft were modified for photographic reconnaissance duties carrying a maximum of ten cameras, including oblique cameras. The fit permitted visual and radar photography; sorties lasted up to 8½ hours, with an operational range of approximately 3300 miles at an altitude of 35-40,000, flying at about 420 knots T.A.S.

The squadron moved to RAF Wyton on 16th November 1955, commanded by Wing Commander R. E. Havercroft, AFC, with a strength of seven aircraft, as part of the UK Reconnaissance Force,

The main activity at this period was training, but demonstration flying was also indulged in, such as participation in the Farnborough Display in 1956, this being the first occasion when large numbers of Valiants were seen in public. The Squadron in fact acted as a Valiant display squadron for 1956 and as such performed before the press at 232 OCU, RAF Gaydon, on 19th March 1956, and led the flypast of Valiant aircraft for the visit of Marshal Bulganin and Mr Krushev to RAF Marham on 23rd April 1956. The aircraft took part in the International Air Display at Zurich 26/27 May 1956, and later in the year the squadron participated in the flypast of the Review of Bomber Command by HM the Queen at RAF Marham on 23rd July 1956.

Another event, of a slightly different kind, was the presentation in 1956 of 3 silver tankards to the Commanding Officers of the first three Valiant squadrons, of which 543 was one. The presentation was made by Admiral the Earl Mountbatten of Burma at Headquarters Bomber Command, the tankards being the gift of the Wardroom Mess of HMS Valiant.

A further connection with HMS Valiant was the purchase of the Ship`s plaque in June 1957. This had been made in the ship after the Battle of Jutland, in which she participated as a unit of the 5th Battle Squadron. The plaque is of mahogany 15” high, carries the crest consisting of a fighting cock, and bears the motto “Valiant yet Vigilant”. It now graces the Commanding Officer`s Office.

A few words about the squadron badge will be appropriate. The crane was chosen as being symbolical of long flights at high altitudes; the unlocked padlock representing the unlocking of secrets by photographic reconnaissance. It received Royal approval in April 1958.

During all these activities the flying side was not neglected. Overseas training flights were frequently carried out, a 543 Valiant was the first of the type to land at RAF Gibraltar on 20th March 1957, piloted by the CO, Wing Commander F. E. Havercroft.

Further afield, a successful survey of part of the Aden Protectorate was undertaken.

Also in 1957, the squadron received visits from a number of distinguished persons. On 27th February the then AOC-in-C Bomber Command, Air Marshal Sir Harry Broadhurst, accompanied by the Undersecretary of State for Air, Mr C.J. Orr-Ewing, MP, inspected a squadron Valiant, and during the presentation ceremony of No 58 Squadron`s colour by HRH the Duchess of Gloucester, the opportunity was taken by HRH to inspect four of the

squadron's aircraft.

A link with the past was provided by a visit to the squadron in March 1957 by a wartime Commanding Officer, Sqn Ldr F.A. Robinson, DFC, who was duly entertained at a Guest Night held in the Officers Mess, RAF Wyton. At the time he was stationed at RAF Kirton Lindsey, Lincs.

Sporting activity was not neglected, an outstanding achievement being that of Flt Lt B.R. Davies who won the Bomber Command Individual Rifle Championship at Bisley in 1957. He also captained the winning team - RAF Wyton, in the Bomber Command Inter Station Shooting Competition.

1958 and the following years saw the squadron conduct surveys in all parts of the world. In 1961 after the hurricane which hit British Honduras, the squadron went there to assist the local authorities in assessing the damage. It was also involved in emergency relief work by taking photographs of the severe earthquake damage at Agadir in North Africa, and the volcano stricken island of Tristan da Cunha in the South Atlantic.

In June 1962, a visit was paid to Townsville, in Australia, for a photographic survey of the Soloman and Santa Cruz Islands, to enable new maps of the area to be produced. This was 543's first visit to Australia, vividly remembered by personnel involved by the hospitality accorded by the people of Townsville.

A member of the ground crew got into the news in September 1963 by the award of the BEM for gallantry, Chief Tech B. Wicks, an aircraft servicing chief, received his award for putting out an electrical fire, in an inaccessible servicing bay in close proximity to fuel tanks of a Valiant aircraft. By his prompt and courageous action, a valuable aircraft was saved. This incident took place at Palisadoes, Jamaica, during a survey of British Honduras.

The largest single photographic survey task by the RAF became 543's job - naturally. This was of the Rhodesia's and Bechuanaland, an area of more than 500,000 square miles. This occupied 3 aircraft for 4 months in mid 1964, and resulted in much more accurate maps being produced. Errors as much as 16 miles were found and lakes like Bangweula were found to be different shapes from existing maps.

CHAPTER 5

At the end of 1964, the Valiant force was withdrawn owing to metal fatigue. Having served the squadron well, Valiants were all scrapped on site and replacements in the form of Victor MK 2 aircraft arrived, these being the bomber aircraft modified for the PR role.

Externally the Victor B(SR) 2 differs little from the B2, the main difference being that the bomb bay is not modified to carry Blue Steel. The SR2s bomb bay has a number of attachment points and various combinations of camera crates, photographic flares and photographic flashes may be carried. In addition, provision is made for extra fuel tanks in the bomb bay. The Victor has a range at least 40% greater than the Valiant and can fly about 15% higher, whilst its capability for photographic coverage is more than doubled.

Improved radar equipment enables the Victor to cover an area of 400,000 square miles in 8 hours, unaffected by darkness or cloud.

In 2 hours a Victor can cover an area equivalent to the UK. 4 aircraft can cover the whole of the North Atlantic in 6 hours. The radar gives high definition at short ranges, and enables an airfield, for example, to be photographed in darkness or through cloud or fog to reveal aircraft hardstandings, hangars and vehicles in detail. The radar reconnaissance capability has been utilised, for example, in surveys of ice formations in Northern latitudes. For this purpose a new rapid processing radar unit, which provides in-flight processing of a continuous strip record of the radar pictures obtained by the aircraft, is fitted.

The squadron aircraft have also been used for trials of colour photography for intelligence and survey purposes.

For general air survey work F.49 Mk 4 survey cameras are used, with twice the magazine capacity of the earlier mark used on the Valiant. On the Valiant the camera flats were in the actual bomb bay doors, but in the Victor no such ports are fitted so it is necessary to open the bomb bay doors prior to operation of the cameras.

The squadron is well pleased with the Victor aircraft. No 543 Sqn continues the work, so well begun in its Valiant days, of fulfilling the demands of various government agencies at home and overseas, tasks for the services, and our NATO allies. It is an active and productive force capable of dealing with and accepting the challenge of today's events. Such diverse activities as the survey of Saddleworth Moor in connection with the infamous Moor Murder case in 1965; participation in the Guyana Independence Day celebrations in May 1966; the AOC-in-C Bomber Command Air Chief Marshal Sir Wallace Kyle setting up an unofficial non-stop record from Piarco, Trinidad to Wyton (5896 miles in 7 hours 35 minutes - an average speed of 592 mph) in February 1967; and extensive photographic coverage of the oil spillage from the tanker, "Torrey Canyon", to determine its extent and drift and enable counter measures to be planned and taken.

At the time of writing, August 1967, the Squadron is engaged on a large scale photographic survey task, a complete coverage of Denmark. To obtain the best conditions the majority of sorties have been flown during the early morning. This has resulted in long hours for all concerned, but the results and the satisfaction of carrying out a worthwhile task more than compensate.

COMMANDING OFFICERS

Squadron Leader A.E. Hill, DSO, DFC	19.10.42
Failed to return from sortie to Le Creusot	21.10.42
Squadron Leader G.E. Hughes, DFC	24.10.42
Squadron Leader F.A. Robinson, DFC	8. 2.43
Flight Lieutenant R.C. Cusson	1.9.43
To disbandment	18.10.43
Wing Commander R.E. Havercroft, AFC	24.9.55
Wing Commander R. Berry, DSO, OBE, DFC	26.8.57
Wing Commander C.J. StD. Jefferies, DFC	7.9.59
Wing Commander B. Hamilton, OBE, DFC, AFC	8.1.62
Wing Commander A. W. Tarry	30.12.63
Wing Commander R.H. McV. Redfern	20.2.66

SQUADRON AIRCRAFT

Spitfire Mark PR IV as at time of formation

<u>`A' Flight</u>	<u>Type of Camera Fit</u>
AA 803	W
AB 424	W
AB 427	W
BR 420	W
BP 917	Y
R.7139	Spitfire Type `G' later known as Mark PR VII
N. 3111	Spitfire Type `G' later known as Mark PR VII

`B' Flight

AA 806	W
AA 809	X
AB 128	W
AB 306	W
AR 235	Type `G' or Spitfire MK PR VII
BR 412	Y
BR 658	Y
X. 4786	Type `G' or Spitfire MK PR VII

replacement aircraft AA 811

Mark IX

BS 437
EN 424
EN 426

used from November 1942, concurrently with the PR IV. The above serials are known to have served with 543, others may have been used.

SPITFIRE PR IV. This mark was the main PR type of the mid-war years, 229 built as an adaptation of the Mark V fighter, originally called Type 'D'. No armament fitted, 66 gallon fuel tanks occupied the leading edges of both main planes, giving a total aircraft fuel capacity of 218 gallons.

Camera arrangements were of 3 types –

Type	W	2 x F8 cameras
	X	1 x F.24 camera
	Y	1 x F.52 camera

Engine: Merlin 45 or 46
Wing Span: 36' 10"
Finish: All blue, serial on rear fuselage in white. Roundels blue and red.
Type 'B'

SPITFIRE TYPE 'G' Later known as PR MK VII. A development of the Mark PR IV, modified by the service, carried armament of 8 x 303" machine guns. Camera arrangements were:

1 Vertical F.24 with 5" lens
1 Vertical F.24 with 14" lens
1 Oblique F.24 with 14" lens

Engine: Merlin 45 or 46
Wing Span 36' 10"

SPITFIRE MARK IX. Based on Mark V, with strengthened engine mounting and fuselage.

Engine: Merlin 61
Speed: Maximum 480 mph at 25,000 feet

Those used by 543 squadron were modified at Benson to take cameras, the standard aircraft being a fighter.

VALIANT AIRCRAFT

WP 223	
WZ 380	392
382	394
389	396
391	397
398	burnt out in hangar fire Wyton 13.9.57

crash landing Manston 23.5.64

The first of the 'V' class bombers, the Valiant made its first flight on 18th May 1951, the first production aircraft first flew on 22nd December 1953, and the first squadron, No 138, commenced to equip in February 1955. They were used operationally in the Suez crisis, and also dropped Britain's first atomic bomb. The version used by 543 squadron B(PR)1 was developed in 1954, the first production aircraft making its first flight on 8th October of that year. A total of 107 aircraft of all versions were built.

Engines: 4 Avon RA 28
Span: 114'
Length: 108'
Max speed: 567 mph at 30,000'

THE HANDLEY PAGE VICTOR

The third and last of the aircraft ordered under the RAF's V-bomber programme, the Handley Page Victor, is the biggest and heaviest of them. The B MK 1 came into squadron service with Bomber Command in the spring of 1958, the B MK 2 February 1962, and the SR MK 2 in May 1965.

The Victor was produced to meet the same general requirements as the Vulcan and is readily identified by the 'crescent' or cusp-shaped wing. This wing was designed so that the

critical Mach number is maintained constant along the span by graduating the thickness ratio and sweep-back towards the tips, with low drag at high speed and good stability and control at low speeds, and results in optimum performance at the maximum loaded weight.

Airbrakes are fitted at the rear of the fuselage, and a tail braking parachute reduces the landing run. The wing root is deep enough to accommodate engines, fuel tanks and the main landing-gear units.

The wing was first tried out in the scaled-down form on the Handley Page HP 88 single-seater, which flew on June 21st 1951. The Victor prototype made its first flight on December 24th 1952 and the second on September 11th 1954.

The first production Victor flew on February 1st 1956 and initial deliveries went to No 232 Operational Conversion Unit at Gaydon in November 1957. No 10 Squadron at Cottesmore was the first to be equipped with the Victor B in the following Spring. No 139 Squadron, at Wittering, was the first Victor B Mk 2 Squadron.

The crew of five consists of captain, co-pilot, navigator/plotter, navigator/radar and air electronics officer, occupying a pressurised compartment for operation at great heights. Power-operated controls provide the heavy aircraft with the 'feel' of a light Bomber.

Power for the Victor B Mk 2 is supplied by four Rolls Royce Conway turbojets each developing 19,750lb thrust. In addition to the internal fuel capacity there is provision for under-wing tanks; the SR version can also carry fuel in the bomb bay. The Victor B/SR MK 2, produced for photographic-reconnaissance duties, is fitted with radar equipment to provide pictures unobtainable by visual or photographic means. By this method an area equal to the whole of the Mediterranean could be covered on a single sortie, and four Victors on one sortie could produce a radar map of the whole of the Atlantic. The first B MK 2 flew on February 20th 1959 and now carries the Blue Steel stand-off bomb. The B MK 2 is equipped for in-flight refuelling.

Victor aircraft have put up some fast times on routine training flights. In 1958 one flew from Farnborough to Malta in 2 hrs at 655 mph; another crossed the Atlantic from Labrador coast to the Irish coast (2,020 miles) in 3 hours 8 mins averaging 644 mph. Cottesmore-Akrotiri, Cyprus (2,200 miles) was flown in 3 hrs 46 mins on March 22nd 1959 and on June 10th 1969, a Victor flew from Lisbon to Farnborough in 1 hr 43 mins.

Technical Data

Dimensions: Span - 120 ft; length 114 ft 11 ins;
height - 26 ft 9 ins.

Weights: Not released

Performance: The Victor can fly above 50,000 ft very close to the speed of sound.

[Return to 543 History page](#)