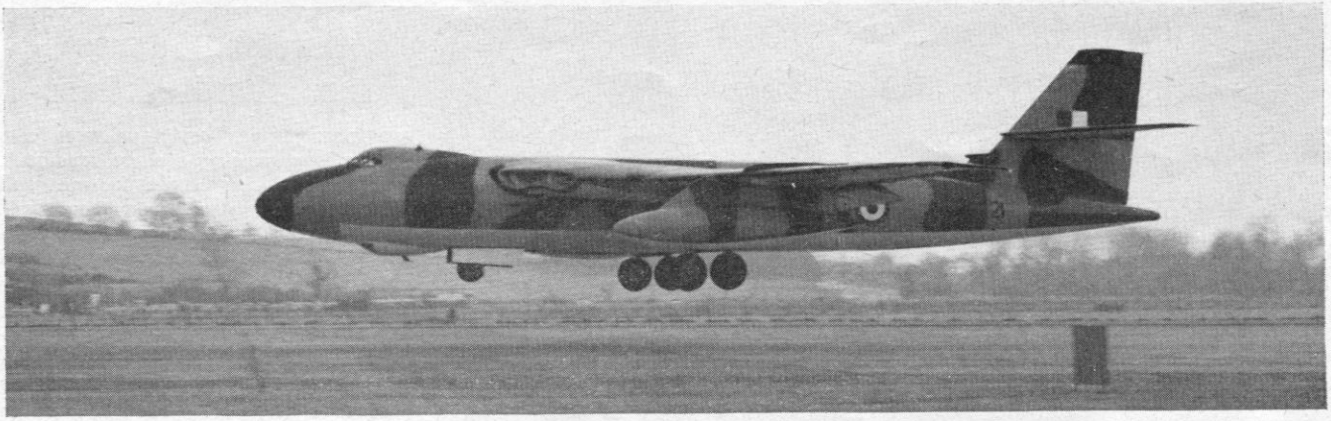


Valiant B(PR).1 WP221 in the camouflage scheme adopted for low-level V-bombers. Britain's first atomic bomb was dropped by a Valiant, in 1956, and the type also operated (with H.E.) during the Suez crisis

Valiant to the last

by J. D. R. Rawlings

THE SCRAPPING OF the Vickers Valiant—Britain's first V-bomber, which has been in service for over ten years and whose design dates back to 1948—has undeniably put the R.A.F. in a spot so far as flight-refuelling capability is concerned; this will be rectified as soon as the Victor tanker enters service. But premature grounding of the Valiant should not obscure the fact that it has been a highly successful aircraft which in no way owes this country anything. For many years it was our nuclear deterrent and all the time that its more sophisticated brethren, the Vulcan and Victor, were getting their bugs worked out the Valiant held Bomber Command's head high, nationally and internationally.

The Vulcan and Victor were the subject of Bomber Command's basic strategic requirement but Vickers were approached with the idea of producing a relatively less complicated interim aircraft to fill the gap and provide Britain with its first strategic nuclear force. This was in 1948 and the specification B.9/48 was written around the Valiant requirement. Although less complicated, the problem posed by producing a four-jet strategic bomber was one of real challenge to Vickers, a challenge heightened by the short time-scale written in the specification.

In the event the first prototype Vickers Type 660, serial WB210, flew from Wisley airfield on 18th May 1951, less than three years after ordered. A month before that a production order was placed for pre-production aircraft so the whole Valiant programme then went swinging into action, again with a short time-scale for it was one thing to produce two prototypes but quite another to go into quantity production.

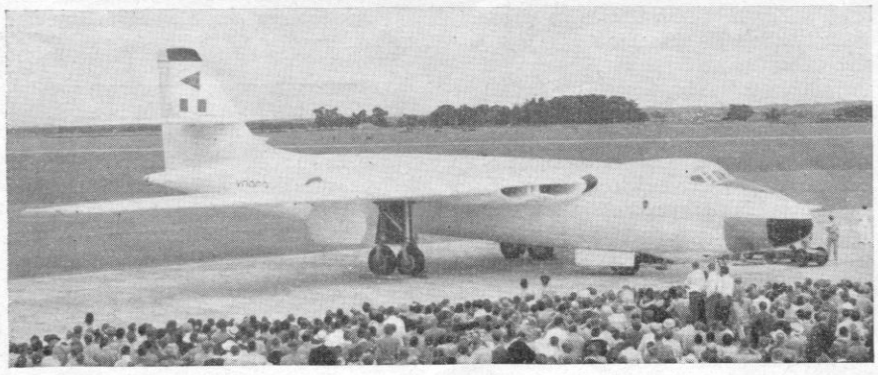
Low-level version

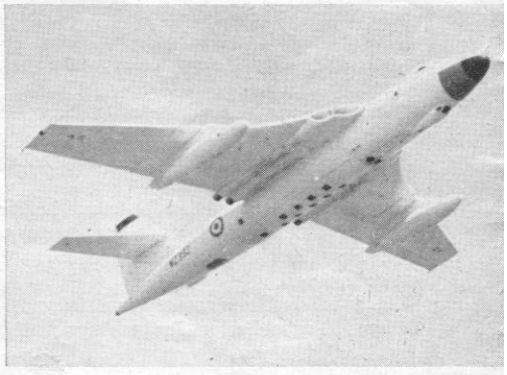
Development flying was highly encouraging and the aircraft was soon re-engined (the Rolls-Royce Avon RA.3s were replaced by RA.7s) but shortly after this the programme suffered a blow when WB210 caught fire in the air and was completely destroyed on 12th January 1952. Its place was taken in April by the Type 667, WB215, the second prototype with, among other things, modified engine nacelles and provision for Avon RA.14s which it subsequently received. At the same time a B.2 version was envisaged and one prototype was built, WJ954, which first flew on 4th September 1953. This was designed for a very similar role to that which the V-bombers are now fulfilling—high-speed, low-level strike—and incorporated a different bogie undercarriage retracting rearwards into extended nacelles, a reinforced wing and longer fuselage. This requirement did not materialise and the aircraft was eventually scrapped.

In this same year WB215, which was going it alone on development flying, was reworked as the Vickers 709 with increased internal and external tankage, prospectively for the London-New Zealand race, but also with an eye to increased operational efficiency. Before the year ended the first pre-production aircraft, WP199, made its first flight, on 21st December. These aircraft had Avon RA.28s and all went to various development establishments during 1954.

In that year production at Weybridge got into its stride and the first definitive B.1 aircraft, Type 706, WP204, went to Boscombe Down for acceptance trials. While these were being carried out, the R.A.F. was not idle. Gaydon, Warwickshire, an old disused airfield which had

LEFT: *No. 90 Squadron Valiants have been as far afield as New Zealand—BK.1 at Ohakea, 1958; note No. 90's green pennant on the fin.* RIGHT: *Valiant B(PR)K.1 WZ392 of No. 543 Squadron displays its camera ports (Author's photo)*





been a glider training establishment during the war, became the scene of extensive rebuilding as it was turned into the new V-bomber base. To Gaydon during 1954 went the team of R.A.F. personnel which had been at Weybridge working out the transition of the Valiant into service, headed by W/Cdr. R. G. W. Oakley. This team then became No. 232 Operational Conversion Unit and, towards the end of the year, received some of the first production Valiant B.1s (*e.g.*, WP206). Having worked up sufficient crews, Oakley went on to form the first squadron, No. 138, in January 1955, and when shaken down as a unit this squadron moved to the first operational V-bomber base at Wittering, in July 1955, for operational work-up and subsequent formation of Britain's operational strategic nuclear force.

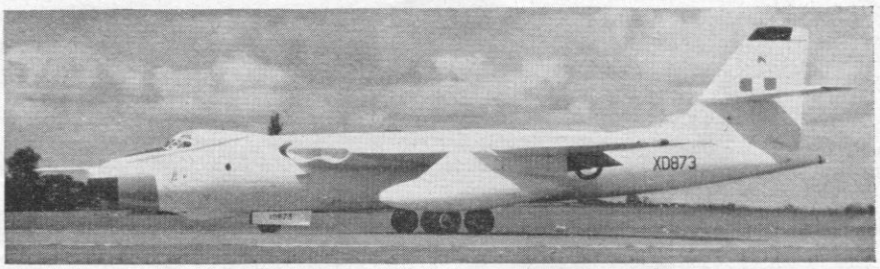
The final development initiated in 1954 was the Type 710, the B(PR).1. Photo-reconnaissance trials were flown with the first production aircraft (WP204) and the first of eleven production B(PR).1s, WP205, flew first on 8th October 1954. These formed the preliminary equipment of No. 543 Squadron at Wyton where they entered service in April 1955, transforming the potentialities of the R.A.F.'s recce. force.

Valiant build-up

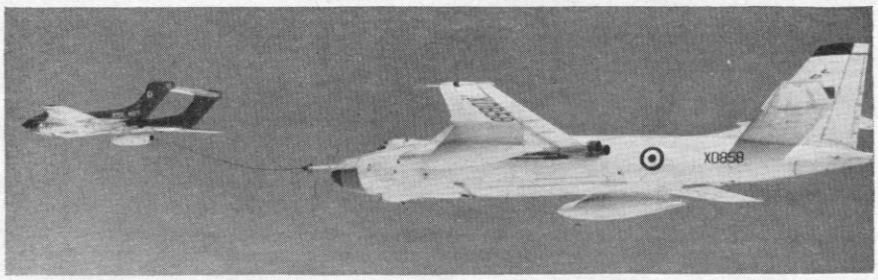
The flow had started and in 1955 there was a period of consolidation with 232 O.C.U. expanding and turning out more and more crews while Nos. 138 and 543 Squadrons worked the type out operationally in their respective roles. 1956 could be said to have been the year of the Valiant for in that year not only did the V-force proper come into being but also the Valiant dropped its first bombs in anger and also took part in nuclear tests. Two more Valiant bases besides Wittering came into being in 3 Group, Bomber Command; they were Marham and Honington and at them five more squadrons were reformed during the year. In March No. 214 Squadron formed at Marham followed by No. 207 there the following month. In May No. 49 joined 138 Squadron at Wittering; in July No. 148 appeared at Marham and in November the first Honington squadron, No. 7, appeared, to be followed by No. 90 in January 1957.

Service use

Squadron No.	*Base*	*Representative Aircraft*
7 (re-formed 11/56)	Honington, later Wittering	WP207, XD860
18 (re-formed 12/58)	Finningley, disbanded 3/63	WP216, WZ372
49 (re-formed 5/56)	Wittering, later Marham	WP218, XD857
90 (re-formed 1/57)	Honington	WZ393, XD830
138 (re-formed 1/55)	Wittering, disbanded 4/62	WP203, XD866
148 (re-formed 7/56)	Marham	WZ395, XD820
199 (re-formed 5/57)	Honington, disbanded 12/58	WP216. WZ372
207 (re-formed 4/56)	Marham	WP221, XD873
214 (re-formed 3/56)	Marham	WZ379, XD858
543 (re-formed 4/55)	Wyton	WP223, WZ392
232 O.C.U. (formed 1954)	Gaydon	WP206, WZ365



A 207 Squadron BK.1 about to take off. The squadron badge, on the fin, consists of a red winged lion statant (Author's photo)



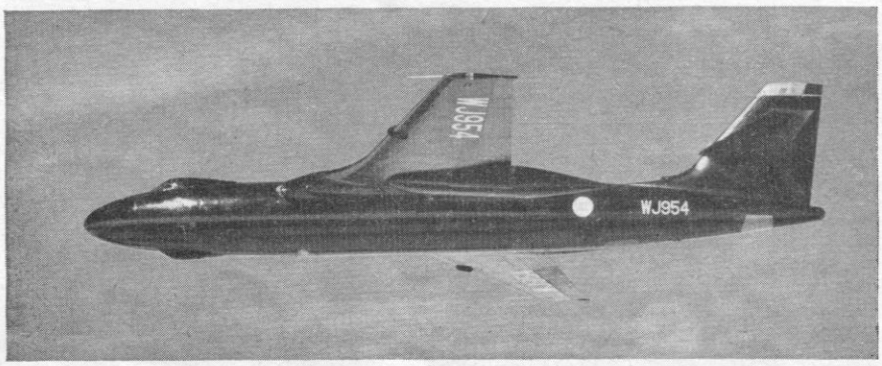
No. 214 Squadron has exercised with many R.A.F. and F.A.A. units in flight-refuelling development—a BK.1 and an 899 Squadron Sea Vixen

The Valiant was intended as a nuclear bomber so it was natural that it should figure in the development of nuclear bombs. Early on in development WP209 had been attached to Woomera for trials and in 1956 No. 49 Squadron at Wittering was detached to Australia to drop Britain's first atomic bomb. The aircraft was WZ366, the crew headed by S/Ldr. E. J. G. Flavell and the date 11th October 1956. While this was going on the Suez crisis was brewing and the other four operational Valiant squadrons—Nos. 138, 148, 207 and 214—were despatched to Malta from whence they operated in the conventional role against Egypt, No. 148 Squadron's XD814 being the first aircraft to drop bombs in anger.

In 1957 the Valiant force reached its peak with the equipping of No. 199 Squadron at Honington with some Valiants in May and the completion of production at Weybridge on 27th August. In all 107 Valiants had been produced, three prototypes and 104 production aircraft. Fifty-nine aircraft had been built with flight-refuelling in mind and comprised fourteen B(PR)K.1s (mainly for No. 543 Squadron) which could receive fuel in flight, and forty-five BK.1s, most of which could act as tankers or receivers. Trials had started in 1955 with two specially modified Valiants, WZ390 as tanker and WZ376 as receiver, at Boscombe Down, but it was not until 1959 that the trials had been sufficiently extensive for full-scale operational use. No. 214 Squadron at Marham became the initial tanker squadron and since that date has concentrated on the refuelling role, acting as a tanker squadron for other units than simply the V-force, including fighters and Fleet Air Arm aircraft.

By 1957 Britain's first H-bomb was ready for air-dropping. No. 49 Squadron was already deployed to Christmas Island in the Pacific in readiness, and on 15th May the deed was done by W/Cdr. K. G.

The rightful low-level Valiant was the B.2 (prototype only) which had a stronger structure, necessary for high-speed flight in dense air low down, and was therefore heavier; the undercarriage was redesigned to take the increased weight (Photo: Charles E. Brown)



Valiant . . .

Hubbard's crew in XD818. The Valiant's star was now passing its zenith for in 1957 the Vulcan began to enter service, followed by the Victor. For some time the Valiant was to remain the main V-force type but as time went on the fact that it had been projected as an interim bomber became more apparent and its chance of survival in the nuclear role became slimmer. As a consequence a second Valiant squadron, No. 90, was assigned to the tanker task, and in 1962 the Valiant force was assigned to NATO in the support role.

Even more recently the Valiants were reworked for the low-level role and their "whiter-than-white" finish assumed a camouflaged hue. It was realised that fatigue problems would be severe but it was estimated that the Valiants could last another five years. In 1964 wing spar cracks were discovered and subsequent examination of other aircraft showed the trend sufficiently widespread to necessitate the grounding of the Valiant fleet. But it should never be forgotten that the Valiant served this country well at a crucial time and provided a decade of security for Bomber Command, and thus the Commonwealth.

SPECIFICATION: Span 114 ft. 4 in., length 108 ft. 3 in., height 32 ft. 2 in., gross wing area 2,363 sq. ft., gross weight 140,000 lb., max. level speed Mach 0.84 at 30,000 ft., service ceiling 54,000 ft., max. range 3,450 miles.

Production

Type 660 WB210 first prototype, first flight 18/5/51, crashed 12/1/52.

Type 667 WB215 second prototype, first flight 11/4/52, subsequently used for developing Super Sprite RATO gear.

Type 673 WJ954 prototype B.2, first flight 4/9/53.

Type 674 WP199-203, five pre-production aircraft for development and research flying.

Type 706 B.Mk.1 production, 29 aircraft for issue to R.A.F. (WP204, 206-213, 215, 216, 218, 222, 223, WZ361-375).

Type 710 B(PR).Mk.1 production, 11 aircraft for development and R.A.F. use (WP205, 217, 219-221, WZ377-379, 381, 383, 384).

Type 758 BK.Mk.1 production, 45 aircraft for issue to R.A.F. (WP214, WZ400-405, XD812-830, 857-875).

Type 733 B(PR)K.Mk.1 production, 14 aircraft for issue to R.A.F. (WZ376, 380, 382, 389-399).

No. 249 Squadron history

I am attempting to compile a history of No. 249 Squadron before 1948. If any readers are in possession of information, documents, or photographs concerning this squadron, I would be very pleased to hear from them.—**F/O. E. W. Greves, No. 249 Squadron, R.A.F. Akrotiri, B.F.P.O. 53, Cyprus**

"A Creative Instrument"

Sir Winston Churchill and Aviation

by Oliver Stewart

MR. GRIMOND'S DESCRIPTION of Winston Churchill's mind, as a "creative instrument", sums up Churchill's impact on aviation. He saw the opportunities for aeronautical advance and, when he had the power, he provided the means. But we should be horribly wrong if we were to look for signs of partisanship in Sir Winston's approach to aviation and air power. When he became First Lord of the Admiralty in 1911 his advocacy for more ships was as fervent and as insistent as his advocacy for more aeroplanes in the 1930s.

So we should beware of the attractive illusion that this great man was an out-and-out aviation enthusiast. But in so far as his was a forward-looking genius, it was an aeronautical genius. He lent his political support to aviation as he lent it to many other advanced and advancing technologies and inventions.

Major C. C. Turner, for many years *The Daily Telegraph* air correspondent, once gave me an illuminating comment on Churchill's attitude. He said that after Lt.-Col. Spenser Grey had taken him up in September 1913 and given him flying lessons, Churchill evinced enthusiasm for flight, but not for flying. The huge scope of aviation's possibilities enthralled him rather than the acquirement of piloting skill.

From the time he was appointed Secretary of State for War and Air in 1919—the year in which the Air Ministry first officially accepted the responsibility for the air defence of Great Britain—until he became the country's war leader during the conflict of 1939-45, Churchill never let go for one moment of the conviction that air power was a critical component of Britain's well-being.

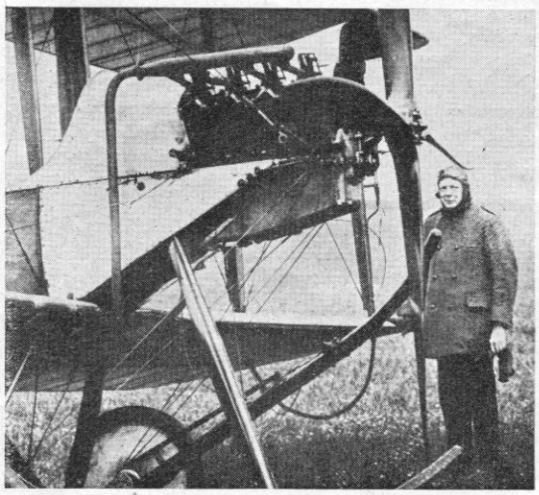
Looking through the Parliamentary Reports of the period, I find his relentless demands for more aeroplanes, civil and military, to match German achievements, almost as stimulating now as they were at the time. Hansard is full of his interventions, his questions, his speeches. In 1935 he went so far as to challenge the official figures showing British and German air strengths. In 1937 he charged the government with having failed to obtain parity with Germany. He referred to Germany's civil fleets as from three to four times as large as Britain's. In February 1939 he appealed to Chamberlain for the appointment of a Ministry of Supply.

As ever his imagination was working prophetically so that he saw more clearly than others, visions of what air power would mean to an island nation. His experience as First Lord of the Admiralty was the background to his grand concept of air-sea power. He might almost have had in his mind's eye a picture of many of the fearful operational clashes that were to come.

In the most trying and dangerous moments Churchill preserved a balanced view, a large-scale perspective view, so that aviation played its full part in events, but no more than its full part. Before the start of the Battle of Britain, close to the time of Lord Dowding's momentous letter of May 1940, pointing to the appalling risks of allowing our defensive fighter strength to be further weakened by sending more squadrons to France, Churchill seemed almost to be on the other side, asking that more squadrons should be sent to our hard-pressed ally. It was his strain of generous loyalty.

But quickly he appreciated Lord Dowding's absolute integrity and his accuracy in interpreting the situation. From then on Churchill was utterly behind Lord Dowding.

During the Battle of Britain Churchill's



LEFT: *Although Churchill received flying lessons and flew himself on occasion, his enthusiasm was more for aviation's possibilities than acquiring piloting skill. He is here standing by a B.E.2a in* 1914 (*Photo: Imperial War Museum*)

RIGHT: *At Biggin Hill in* 1954 *when he presented the Esher Trophy—an award for the most efficient R. Auxiliary A.F. squadron—to No.* 615 *(County of Surrey) Squadron, of which he was Honorary Air Commodore*