



Simon Westwood

**The Viking was impressive but unlovely. Its rotund profile soon earned it the nickname “flying pig”**

Flying for the first time in 1946, the Viking was impressive but unlovely. Its distinctly rotund profile soon earned it the nickname “flying pig”. Its performance caught the interest of many buyers, but the fabric flying surfaces were seen as old-fashioned and so the order book failed to fill as rapidly as Vickers Armstrong had hoped. They quickly redesigned the wings and tail to use a stressed metal skin construction and a highly successful airliner was born.



# FLYING UNIVERSITY

As the Vickers Varsity restoration nears completion at Newquay, and with the 65th anniversary of the type’s first flight falling on July 17th, this seems a good time to take a more detailed look at an often overlooked aircraft that deserves far more attention.

The name Varsity has many provenances, but we suspect that Vickers chose it because of its original meaning, as a corruption of “university”. Designed from the ground up as a multi-crew trainer, it could train a pilot, navigators, bomb aimers and radio operators simultaneously on a single flight. As a flying college it distinguished itself as one of the most effective trainers ever built.

## The Wimpy Boot



The Varsity story begins in 1936, with the first flight of the Vickers Wellington. The new bomber’s most noteworthy feature was its geodesic construction, conceived by Barnes Wallis to provide optimum strength from minimum weight. The fuselage was essentially a diamond lattice of aluminium struts, over which a skin of doped fabric was stretched. It was an innovative building technique that proved itself countless times, retaining structural strength even when astonishingly large sections of fuselage had been shot away.

Initially equipped with a pair of Bristol Pegasus engines, the Wellington boasted a bomb load of 4,500lb, impressive for the time and equal to the long-range capacity of the four-engined B17. This was thanks largely to its lightweight construction, which also contributed to a high operational speed. Unfortunately its speed was to prove inadequate to provide the hoped-for protection from lateral attack and losses were heavy. Heavier armament, including waist guns and later a four-gun rear turret, along with the addition of armour plating and self-sealing tanks necessitated more powerful engines, and Vickers upgraded the Wellington’s units, first with Merlins and then with the Bristol Hercules radials that were to power the vast majority of the later marks.



## I will gladly pay you Tuesday

The Wellington’s well-known soubriquet “Wimpy” comes from the Popeye cartoon that was so hugely popular in the thirties. Images of the hamburger-obsessed Mr J. Wellington Wimpy were to be seen adorning the nose of many of this redoubtable aircraft, the only British bomber to remain in production for the entire duration of the war.

## The Flying Pig

By 1944, hopes of an end to hostilities allowed the Ministry of Aircraft Production to look towards peacetime transport, and a design specification was laid down for a twin-engined medium-haul passenger aircraft. Vickers Armstrong took up the challenge and began design of the Wellington Transport, later to be renamed the Viking.

A wide and deep cylindrical fuselage gave more room for cargo and passengers, so the characteristic geodesic framework of the Wellington gave way to a more modern construction of hoops, stringers and stressed skin. The wings and tail of the bomber retained Barnes Wallis’s immensely strong construction and were fabric-covered. The Wellington had been remarkably advanced for its time in having a retractable tailwheel, and so the undercarriage remained unchanged.

## Varsity Shows

The capacious fuselage and sweet manners of the Viking and its military sibling the Valetta made it an obvious development choice when, in 1948, the Air Ministry announced a specification for a multi-purpose trainer to replace the Wellington T10 and Valetta T3/4. They had provided excellent service as pilot, navigator and radio trainers but, with the imminent advent of the nuclear V-bombers, a need for a purpose designed bombing trainer was envisaged.

Specification T13/48 (OR.249) was issued for a multi-engine trainer. ●●●

Vickers Armstrong once again submitted a winning design, based strongly on the proven formula of the Viking and Valetta.

The Varsity design lengthened the fuselage and widened the wingspan. The resulting shift of the centre of gravity allowed for a more modern – and easily controlled – tricycle undercarriage. The tail-high attitude on the ground made for a more contemporary, post-war look, but beneath those cowings was the familiar sleeve-valve Bristol Hercules radial, now growling out 1,950hp, compared to the 1,375 produced by the Hercules III in the Wellington B MkIII.



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Most noticeable among the new trainer's modifications was a low-slung belly pannier with a forward-facing bomb-aimer's window. A trainee and instructor could lie prone on purpose-designed couches and control the release of up to 600lb of practice flash bombs. Meanwhile, two student navigators and wireless operators could be occupied at dedicated workstations, seated on chairs that Tomás de Torquemada would have rejected as cruel and unusual punishment. As was usual for RAF types, the seats face backwards for safety, though after a couple of hours on these vertical-backed instruments of torture a crash might have seemed a relatively attractive prospect!



**First Flight**

The first prototype Varsity made its initial flight on 17 July 1949, in the hands of one of aviation's legends, the irreplaceable Joseph "Mutt" Summers. Summers is best remembered for his "Don't touch anything" comment on exiting the prototype Spitfire after his test flight, but he also test-flew the Wellington and Viking, so the line of continuation through the family is complete. His trademark superstition was always to "wet the tailwheel" before a flight, ostensibly to guard against bursting a full bladder in the event of a crash. One has to wonder whether he walked to the right end of the tripod-gear Varsity!



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# NEGLECTED CLASSIC

WJ945 was a sad sight when she arrived with us by road in 2013. She'd stood outside on static display at Duxford and had suffered badly from the elements.

Built at Vickers' factory at Hurn in Bournemouth, she made her maiden flight on February 23rd 1953 before entering service with RAF Watton in Norfolk on March 11, 1953 where she served with 527, 115 and 116 Sqns before passing to Central Flying School and serving at RAF Tangmere and Little Rissington. Later in her career she served with the Electronics & Air Engineers School at RAF Topcliffe and 5 FTS at RAF Oakington before finishing her military service with at RAF Cranwell.



Guano free at last, the cockpit and interior are nearing completion. Simon Westwood

The wings had been damaged in transit, several parts were missing and the interior had served the fundamental needs of at least twenty generations of pigeons. At last we've passed that tipping point when the to-do list starts to get shorter instead of longer. Though she's unlikely ever to fly again, she's now almost complete and will make a superb climb-aboard exhibit when she's fully winged-up and equipped this summer.

The Varsity might not be the most glamorous of our residents, but her long service saw countless V-bomber crews begin their careers.

She's more than earned a comfortable retirement.

