

**INDIVIDUAL HISTORY**

**SHORT SB5 WG768**  
**MUSEUM ACCESSION NUMBER 85/A/06**

Built as sole example of its type by Short Brothers and Harland at Sydenham, Belfast to specification ER.100, to contract 6/Aircraft/5347/CB.7 (a). This aircraft was used to find the optimum format for the planned English Electric P.1 interceptor, which became the Lightning supersonic fighter. It specifically investigated problems associated with low speed handling characteristics of swept back wings at speeds below 350 knots. Constructor's number SH.1605. It could fly with different amount of wing sweep, though this could not be changed in flight, and with a conventional 'T' tail or low mounted tailplane. Ordered from Shorts as a way of checking the English Electric calculations on the Lightning, English Electric thought the project a wasted effort.

- 27 Jul 50 Allotted serial number WG768
- 2 Dec 52 Following delivery from Belfast by sea and road, first flight at A&AEE, Boscombe Down, with 50-degree wing sweep and high set fin-mounted tailplane. Pilot Tom Brooke-Smith. Completed its initial test schedule without incident within seven months, though very underpowered.
- 29 Jul 53 First flight with new 60 degree sweep wing; the aircraft had earlier been returned to Belfast for alteration of the wing angle by installing this new wing.
- Aug 53 Flown for first time by English Electric chief test pilot, Roland Beamont, who was in charge of the P.1 flight-testing programme; he felt that the T-tail was unsatisfactory.
- 5 Sep 53 Made its first public appearance at the S.B.A.C show at Farnborough, flown by Tom Brooke-Smith.
- Dec 53 Modified tail with tailplane and elevator at the bottom rather than the top, fitted at Belfast.
- Jan 54 First flown in this modified form by Tom Brooke-Smith at Boscombe Down.
- 24 Jun 54 Allotted for Handling Trials at RAE Farnborough.

- Sep 54 Static exhibit at the S.B.A.C display at Farnborough, being loaned to Shorts as of 1 Sep 1954.
- 7-9 Jul 55 Displayed at RAE Farnborough Golden Jubilee celebrations. Photo – X-Planes of Europe p.122.
- 20 Sep 55 Transferred to Royal Aircraft Establishment Bedford, the results being correlated with the final development of the Lightning.
- 57 Withdrawn from use for change from original Rolls Royce Derwent 8 to Bristol Orpheus engine and 69 degree sweep.
- 15 Apr 58 Fuel tanks drained.
- 18 Apr 58 Aircraft dismantled.
- 20 Apr 58 Returned to Shorts at Belfast for the substantial rebuild including the re-engining (Bristol BE.26 Orpheus), revised instrumentation, installation of zero-level Martin Baker ejection seat and repainting glossy light blue to enable it to be quickly distinguished from Lightnings of similar appearance but very different performance.
- Sep 60 Returned to RAE Bedford
- 18 Oct 60 First flight in new configuration; pilot Denis Tayler of the RAE Aero Flight. The aircraft remained with Aero Flight for basic handling trials in comparison with wind-tunnel tests.
- By 1964, the aircraft was being used for aerodynamic trials work in conjunction with the Concorde project, using port wing tufts to investigate leading-edge flow patterns, the airflow being filmed by a small fin mounted camera. Flown from Bedford by Flt Lt Farley and Roland Beamont in 1964.
- 1 Dec 65 Having been turned down for use by the Australian Aeronautical Research Laboratory, transferred to Empire Test Pilots School, Boscombe Down, coded '28' in white and wearing a dark blue colour scheme. Used for student test pilot training on low-speed experience on slender aircraft.
- Nov 67 Nominally struck off charge when major airframe inspection due.
- 1968 Withdrawn from use - replaced by Lightning T.4.

- 6 Jan 68 Allotted RAF Instructional serial 8005M. To MoD for 'exhibition purposes' 22<sup>nd</sup> January.
- 7 Mar 68 Flown to RAF Finningley, Yorks for storage on behalf of the RAF Museum and given RAF Maintenance serial 8005M. Colour photo at Finningley, 12 September 1968; Lost Aviation Collections of Britain (Ellis).Also English Electric Lightning (McLelland) p.16.
- Aircraft repainted in 1971 whilst with the station museum at Finningley.
- 1971 To RAF Topcliffe, North Yorks for storage and display on station open days.
- 1974 To temporary storage at RAF Henlow, then to Aerospace Museum, RAF Cosford, Salop; T-tail rear fuselage displayed alongside, following storage at with the RAFM facility at RAF Henlow, Beds from 1968. Photo at Cosford in overall silver paint scheme, May 1976; Air Extra No.13p.14; Photo of repainted aircraft and tail on display, September 1997; Wrecks and Relics 16<sup>th</sup> Edition 1998; also English Electric Lightning (McLelland) p.17.

**TEXT; ANDREW SIMPSON**

**© ROYAL AIR FORCE MUSEUM 2013**