

EUROFIGHTER DA-2/ZH588
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One of seven EF 2000 Development Aircraft (DAs) built by the Eurofighter Partner Companies (EPCs), six of which later formed part of an intensive Flight Test Programme (FTP), as one had been lost in a crash. Built as a single-seat airframe. Although DA2 was completed and ready for flight first, it was the German built DA1 which made the first flight, at Manching, Germany, on 27 March 1994.

14 Aug 93 Rolled out at BAE Warton in two-tone grey colour scheme. Photo-Aerofax Eurofighter 2000 p.2.

30 Aug 93 First engine runs.

6 Apr 94 First flight, at British Aerospace (now BAE Systems) Warton, near Preston, Lancs, flown by BAe AirOPs director Chris Yeo, for a 50 minute flight, during which it attained a gentle 287mph at 10,000ft. Escorted by a Tornado and a Hawk for a flight over the Irish Sea. Photos – Eurofighter Typhoon (Harkins) p.89; Royal Air Force Yearbook 1995 p28.

Fitted with interim RB.199 Mk 104E turbofans as the EJ200 engine was not yet ready for flight testing. The engines originated from the retired BAe EAP airframe ZF534; including a spare, engine serial numbers 9001/2/3 were used.

This was the first of the British development aircraft, and was later used for flight envelope expansion and carefree handling trials. 575 sorties were scheduled as the aircraft's test life.

4 May 94 Flown in front of UK Government Ministers and government and industry officials at Warton.

24 May 94 Ninth flight (Pilot John Turner), by the end of which DA2 had accumulated 7 hours 14 minutes flight time, at up to 327-kts (605km/h/376mph) at 7,924m/26,000ft and manoeuvres up to 3.5g. Aircraft then grounded for structural inspection and retrofitted with first software upgrade for flight control and cockpit displays, instrumentation, and associated systems replacing the initial Tornado-style analogue cockpit instruments.

17 May 95 Second phase of development flying commenced with first flight – its tenth - since installation of new software – a 1hr 25 minute evening flight taking off at 18.54, returning at 20.16 following three practice approaches; pilot Chris Yeo, escorted by a Tornado GR.1 chase plane. Completed eight flights 17 May – 8 June.

Diverted to RAF Leeming, Yorkshire on the 13th flight on 24 May due to adverse weather conditions at Warton. Pilot John Turner, EF2000 Project Pilot at Warton.

- Jun 95 On static display at Paris airshow at Le Bourget, flying in on 9 June (Flight 18, pilot John Turner) and leaving on the evening of 13 June (Flight 19).
Photo departing – Air Forces Monthly August 1995 p.17.
- 15 Jun 95 Flight 20; First supersonic flight by DA2; reached Mach 1.05. Pilot Chris Yeo.

Flights 20, 22 and 23 concerned rapid role manoeuvres and loops.
- 24 Jun 95 At RAF Leeming for two days with reported fuel leak. Photo at Leeming – Air Forces Monthly August 1995 p.3.

Flights 22 and 23 were on 28 June, entering the loops at 5,000ft, beginning at 300 knots, but slowing to 190 knots.
- 22/23 Jul 95 Appeared at RIAT Fairford, Gloucestershire for its first public flying demonstration, flying its 31st, 33rd and 34th flights which included further tests – radio communications trials off the south coast of England at 25-30,000ft and engine handling trials on the way back to Warton.
- 9 Nov 95 Flight 57 – RAF EF 2000 pilot Squadron Leader Simon Dyde flew the aircraft for the first time on a 70 minute sortie from Warton.
- 31 Dec 95 By this date DA-2 had logged 67 sorties. Most of the development flying was by BAe Eurofighter project pilot John Turner.
- 25 Jan 96 Photographed at Warton. Air Forces Monthly March 1996 p.2.
- 28 Aug 96 By this date, DA-2 had made 128 flights; 132 by 30 August.
- 2- 7 Sep 96 Displayed in flight at Farnborough by Eurofighter Project Pilot John Turner. Photos – Aircraft Illustrated April 1999 p.31; Air Forces Monthly October 1996 pp.32-33, November 1996 p.40.
- Nov 96 Following its appearance at Farnborough, the aircraft was taken out of service for routine inspection and maintenance and upgrades, including preparations and software for phase three of the flight expansion trials (carefree handling to evaluate the Flight Control System, refuelling, etc). The updates included the fitting of a spin recovery parachute and gantry as a safety measure to facilitate the Carefree Handling Trials. Trials flown by Craig Penrice, Eurofighter Typhoon Project Pilot.

- Nov 97 Involved in ground refuelling trials with an RAF Lockheed Tristar tanker during a detachment to RAF Brize Norton between 10 and 14 November. Photo – Air Forces Monthly January 1998 p.3.
- 23 Dec 97 Reached design goal speed of mach 2 over the Irish Sea.
- 12 Jan 98 Involved in first air to air refuelling trials with an RAF VC10 K3 tanker (ZA149). Photos – Harkins p.101; Air Forces Monthly April 1998 p.6.
- 1998 Grounded and retrofitted with definitive EJ200 powerplant; also given cockpit system upgrades and had a Martin Baker Mk 16A zero – zero ejection seat fitted.
- Aug 98 Returned to flight following modification.
- 1998 Flown in all black scheme at RAF Leuchars.
- Sep 98 Flown in formation with the RAF Red Arrows formation team during the opening ceremony for the Farnborough International Air show.
- Mar 99 DA-2 completed its ‘baseline configuration’ flutter trials at Mach 1.2 and 750kts Equivalent Air Speed (EAS) as part of the Weapon System Development Programme-this equated to a True air Speed of 800-kts. It had also flown to an altitude of 50,000ft to test the aircraft’s high altitude capability.
- Apr 99 Equipped with new ASP (Aircrew services package) DA2 reached an altitude of 50,000ft.
- May 99 Conducted ground-carrying trials of various dummy stores intended for the Typhoon. Photos – Harkins p.107.
- Jul 00 Flew with 2b2 flight control software installed, as the first of the development aircraft to receive the upgrade.
- 28 Jul 00 Began series of survey flights for which the aircraft’s skin was covered in 490 pressure transducers, for which it was painted in an all-black colour scheme which hid the sensors and pads.
- Jul 00 Shown at Farnborough Airshow, and with DA1, made the first public Typhoon formation flight. Photos – Harkins p.104.
- 2001 Deployed to RAF Leuchars for airflow measurement trials. Photos – Harkins p.103/105/109. Carried markings of No 43 ‘Fighting Cocks’ Squadron during this deployment. See colour profile in Scale Aircraft Modelling February 2007 p.793.
Other tasks that year included engine re-light trials.

- Jan 02 Two Typhoons, DA2 and DA4 were refuelled at the same time in parallel from an RAF tanker aircraft.
- 7 Apr 02 By this date, the aircraft had made 419 flights, with 374.7 flying hours.
- Jul 02 Flown at Farnborough Air Show, including being part of a four-Typhoon display on 23 July-the first time four aircraft had been shown together. Photos – Eurofighter Typhoon (Harkins) p.37/108/173.
- 2002 Conducted captive flight trials with MBDA ASRAAM air – air missile
- Jul 02 The carefree handling trials were completed around this time. They had included fitting an extensive four-missile configuration to clear the Typhoon for Initial operational Clearance.
- Followed by Defensive Aids Sub-System trials.
- 2006 At Warton, DA-2 continuing successful testing of a Towed Decoy in long-lasting flights and a new pilot’s helmet design, fully integrated into the avionics system.
- 29 Jan 07 Final flight to RAF Coningsby, Lincolnshire; total sorties 652; total flying time 614 hours 44 minutes, flown by a total of 20 different pilots.
- Some spares recovery, including engines, for other development batch and RAF aircraft. Photo engineless at Coningsby, May 2007; Wrecks and Relics 21st Edition.
- Sep 07 Aircraft batteries and APU removed-other parts removed from 2nd July 2007.
- c. Oct 07 Dismantled and taken by road from RAF Coningsby to RAF Brize Norton, Oxon for C-17 air portability trials, to be held December 2007.
- Jan 08 Stripped down at RAF Coningsby prior to transport to Hendon. Photos – Fly By Wire (Typhoon IPT Magazine) March 2008 p.7. Engines, gearboxes, hydraulic pumps, and other heavy components removed to lighten the airframe for suspended display.
- 22 Jan 08 By road to RAFM Hendon for suspended display in Milestones Gallery, moving into the building the following day. Assembly completed 30 January. Photos; Flypast April 2008 p.5. Remains as part of the new ‘Age of Uncertainty’ exhibition, opened May 2018.

Eurofighter prototype DA1 is also preserved, being with the Deutsches Museum Flugwerft Schleissheim near Munich since March 2007.

TEXT; ANDREW SIMPSON

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