

**BAe HARRIER GR.9A ZG477**  
**ACCESSION NUMBER X005-5972**

Constructed by British Aerospace at Dunsfold as one of 34 new-build Harrier GR.7s, with RR Pegasus 105 turbofan engines and using composite materials and BAe and McDonnell Douglas (US)-built components; following final assembly and flight testing delivered from BAe Dunsfold, Surrey between May 1990 and June 1992; serials batch ZG471 – ZG480. Constructor's Number P67.

- 4 Aug 90    Assembly underway; mainplane (s/n 010492) fitted.
- 28 Aug 90    Taken on RAF charge.
- 3 Sep 90    First flight
- Sep 90    Harrier GR.7, with its enhanced night attack operations capability, entered RAF front-line service (with No. IV (AC) Squadron).
- 5 Nov 90    From BAE Dunsfold to RAF Gutersloh, Germany (only a month after the reunification of East and West Germany); airframe hours 5.00.
- 5 Dec 90    Flown by Malcolm White on Gutersloh on air-to-air training combat mission against Phantoms. Landed at RAF Wittering and returned the following day.
- 1990/92    With No 4 Squadron, RAF Gutersloh, Germany; aircraft code CC.
- 1991        All Harrier GR.7s grounded for a period due to teething troubles, mainly in the electrical system.
- 27 Aug 92    Gutersloh to RAF St Athan for Phase 4 Modifications; airframe hours 445.50.
- 1992/93    With No 3 Squadron, RAF Laarbruch, Germany. Aircraft code AK.
- 8 Dec 92    From No.3 Squadron St Athan to RAF Laarbruch following modifications; airframe hours 447.00.
- 8 Apr 93    RAF Laarbruch to Incirlik, Turkey for Operation Warden. Airframe hours 523.45.
- 1993/94    With No 4 Squadron, Incirlik, Turkey; aircraft code WI.

Following the Kurdish uprising against President Saddam Hussein, in April 1993 the Harrier Force took over the policing of the Northern Exclusion (No-fly) Zone in Iraq from Jaguar aircraft as part of 'Operation Warden'. Based at Incirlik, the three Harrier squadrons (Nos 1, 3, 4) were rotated on a regular basis until 1995 when this commitment ceased for the Harrier Force.

- 23 Aug 93 Incirlik to RAF Wittering. Airframe hours 722.55.
- 28 Mar 94 Returned to Incirlik from Wittering. Airframe hours 766.15.
- 15 Nov 94 Incirlik to RAF Laarbruch, Germany. Airframe hours 1000.50.
- 8 Oct 96 To Boscombe Down for Paveway 3 trial.
- 10 Jan 97 To BAe Dunsfold.
- 14 Jul 98 Dunsfold to RAF Laarbruch. Airframe hours 1648.15.
- 1995/98 Mainly with No 3 Squadron at Laarbruch, Germany as aircraft code '67'  
This was its build production number.
- 1999 Based on detachment with No. 1 (F) Squadron at Gioia Del Colle, Italy, during Operation Allied Force in 1999; Aircraft code '67' on fin. Photo Harrier (McLelland) p.227. The Force Objective was 'to degrade and damage the military and security structure that Serbian President Milosevic (Yugoslav President) has used to depopulate and destroy the Albanian majority in the province of Kosovo'.

Time of initial attack: 2:00 PM EST, 24 March 1999.  
Suspension of bombing: 10:00 AM EST, 10 June 1999.  
Bombing campaign halted: 10:50 AM EST, 20 June 1999.



X008-4340 -Master 07a, ZG477 1 Sqn, Gioa del Colle 1999 Copyright Peter Morgan

- 25 Mar 99 Airborne spare for attack on Leskovas weapons storage facility- not required; 35 minutes; Zanker LB.
- 18 Apr 99 Launched with a high fuel state; held east of Skopje(Macedonia) for 10 minutes; no targets. 1.45 hrs; Zanker LB.
- 19 Apr 99 First Paveway II day sortie- self designation against storage facility north of Pristino airfield; cloud obscured target, but direct hit obtained.1.40 hrs; Zanker LB.
- 27 Apr 99 Paveway III sortie against bridge north of Pristina. Ideal conditions over target; target hit.1.40 hrs, Zanker LB.
- 3 May 99 Tasked to search and attack in a 1km square in the hills north of Kosovo; attempted to drop on artillery pits; target obscured during attack. 1.50 hrs, Zanker LB.
- 15 May 99 Armed with RBL 755; moved to dump area; failed to identify any targets; 1.55 hrs, Zanker LB.
- 21 May 99 Targeting a small Serbian border observation post on the Kosovo/Albanian border; hit and destroyed by two bombs dropped by an accompanying Harrier. 1.30 hrs, Zanker LB.

No 1(F) Sqn operated in Italy from Feb 1999 to July 1999, with hostilities during Op ALLIED FORCE commencing on 24 Mar 99; they took over from IV(AC) Sqn in Feb 99 on arrival in theatre. 3 Sqn probably took over from us; No 1(F) Sqn was the only Harrier Sqn operating out there at that time.

2000 Became part of newly established Joint Force Harrier, based at RAF Cottesmore, Leicestershire. Then still with No 1 Squadron.

2001-2003 Based with No. 3 Squadron at RAF Cottesmore. Aircraft code 67.

Spring 2003 One of the 3 Squadron Harriers participating in Operation Telic, the UK element of the invasion of Iraq, based at Al Jaber Air Base in Kuwait. When it returned to Cottesmore, on the starboard side of the cockpit were mission markings for 10 Paveway II Laser Guided Bombs, ten RBL-755 radar-guided Cluster Bomb Units and eleven 1,000lb 'dumb' bombs being dropped. See profile and details from Harrier Special Interest Group.

July 2003 Back in UK with No 1 (F) Squadron.

17-19 Jul 03 Appeared at Royal International Air Tattoo, RAF Fairford.

- Sept 03 To Poland with No 1 (F) Squadron for NATO air exercise.
- One of 40 new and converted aircraft modified from GR.7 to GR.7A standard with updated RR Pegasus MK.107 engine from 2003.
- 29 Jan 2004 To DRA/BAe Systems Warton for conversion (Harrier Maintenance Programme 3). Airframe hours 3263.55.
- Upgraded to GR.9A standard. The Harrier GR.9A was the mid-life avionics and weapons update of the GR.7A, some 30 Mk 9As being fitted with the more powerful Pegasus Mk 107, and also a terrain referenced navigation system as part of an Integrated Weapons Programme (IWP).
- 12 Sep 2005 From BAe Warton to MoD/AFD/QinetiQ at Boscombe Down, Wilts for trials work; carried gun pods for this period. Airframe hours 3267.55.
- 16 Jun 2006 From Boscombe Down to Cottesmore/Wittering. Airframe hours 3405.15. Continued trials work, presumably connected with planned GR MK 9 capability upgrades.
- 20 Jul 06 From Cottesmore/Wittering to Boscombe Down. Airframe hours 3408.50.
- 6 Mar 07 From Boscombe Down to BAE Warton. Airframe hours 3481.35.
- 20 Apr 07 BAe Systems Warton to Boscombe Down. Airframe hours 3490.02.
- 20 Dec 07 Boscombe Down to RAF Cottesmore. Airframe hours 3559.25.
- Dec 07 Allotted to the Naval Strike Wing, serving with them until February 2008. The Naval Strike Wing was an amalgamation of the two Fleet Air Arm Squadrons, Nos. 800 and 801. (which became 800 Naval Air Squadron on 1 April 2010)
- Mar-Jun 2008 Undergoing capability upgrade work (TERMA modification) at Harrier Maintenance Facility (HMF), RAF Cottesmore.
- Jul 2008 To No 4 (AC) Squadron, RAF Cottesmore, on detachment to Afghanistan.
- 2008/9 Ten months operational service in Afghanistan as part of Operation 'Herrick' from July 2008 – beginning in the summer fighting season - squadron code still '67'. Armed for operations with Paveway IV 500lb laser/GPS guided bombs and CRV-7 rocket pods, as well as Digital Joint reconnaissance pods and Sniper Advance Targeting pods. Eight Harriers were continuously available in theatre, flying close air support sorties,

with missions flown in pairs, two pairs on day taskings and one pair at night, with other aircraft on alert during the day.

The main area of operations was over the Helmand Valley, some 90nm/15-20 minutes flying time from Kandahar, supporting UK Army and Royal Marines as well as other coalition troops in day/night CGAS (Ground Close Air Support) sorties, carrying a variety of bomb and rocket loads. Other areas covered included the Khyber Pass and Pakistan/Iran/Turkmenistan/Uzbekistan border regions.

- Jul 09 Joint Force Harrier returned home from its Afghan base at Kandahar, being replaced by the Tornado GR4s of No 12 Squadron..
- ZG477 had returned home to join No 1 (F) Squadron in June 2009, flying for two months until grounded for servicing.
- Aug 2009 Into Stand Alone Minor (SAM) servicing.
- 31 Mar 10 Last Harrier GR.7s retired, with IV (AC) Squadron disbanded at Cottesmore the same day, leaving only Harrier GR.9 and '9As in service until final retirement. No 20 ( R ) Squadron at Wittering became IV ( R ) Squadron to keep the IV nameplate.
- Nov 10 Re-allocated to No 1 Squadron following SAM servicing at Cottesmore (completed 6 October 2010) in preparation for final day of Harrier flying after the 19<sup>th</sup> October Government announcement that all UK Harrier operations were to cease before the end of the year;
- Given special commemorative livery; red and white tail with No 1 (F) Squadron badge and lettered '1969-2010' on both sides, and wheeled out in these colours on 17 November. As the 'Boss Bird', ZG477 was flown by OC No 1 (F) Squadron, Wg Cdr Dave Haines.
- 19 Nov 10 At 10.45am, ZG477 was the first of four Cottesmore-based Harriers ('Jedi Flight') embarked towards the end of carrier HMS Ark Royal's final cruise in preparation for farewell departure, as the last Harriers to land on the ship. ZG477 was 'Jedi 1'. Photos – Air Forces Monthly February 2011 pp.42-49. On board for carrier's final visit to Tyneside.
- 24 Nov 10 One of the four aircraft involved in final Harrier departure from a Royal Navy carrier, from the about-to-be decommissioned aircraft carrier HMS Ark Royal.
- Departure point was in the North sea east of Newcastle; ZG477 made the final launch at 09.10hrs, pilot Lt Cdr James 'Blackers' Blackmore, OC A flight, No 1 (F) Squadron, returning to RAF Cottesmore.

- 13 Dec 10 Flown by Sqn Ldr Chris Cartmell, No 1 (F) Squadron's Executive Officer (XO) on a special photographic sortie to record the special Joint Force Harrier markings
- 14 Dec 10 Practice flight by ZG477 (flown by Wg Cdr Dave Haines) and 15 other aircraft ready for the following day.
- 15 Dec10 Official 'Farewell to the Harrier' day; End of Joint Force Harrier and of No. 1 (F) Squadron, and of flying at RAF Cottesmore. Final flight of ZG477; Again as 'Jedi 01' flown in poor weather conditions by Wg Cdr Dave Haines, OC No 1 (F) Squadron, part of the 16-aircraft formation flight and flypast ('Kestrel Formation') from RAF Cottesmore around Lincolnshire and former Harrier bases; taxied back to the Cottesmore flightline for the last time at 14.50hrs; grounded following farewell formation flight; all RAF Harriers grounded that day due to defence cuts announced as part of the Strategic Defence Review on 19 October 2010 that included the axing of Joint Force Harrier and UK fleet flagship, HMS Ark Royal.  
Photos – Air Forces Monthly March 2011 pp.52-58.
- Airframe Hours 4191.25; total landings 3969.
- 2010/11 Stored serviceable at RAF Cottesmore and regularly ground-run. Flying hours 4,191.25; 3,969 landings.
- 1 Mar 11 The four specially marked Harriers were temporarily moved outside for a 'photographer's day' at RAF Cottesmore.
- 2011 Donated to RAF Museum; by road on two low-loaders to Cosford from Cottesmore 19<sup>th</sup> December 2011, being assembled that day. Moved to MBCC for further work 10<sup>th</sup> January 2012; Placed on public display 30<sup>th</sup> January 2012. Photos; Flypast April 2012 p.9; RADAR Issue 4, Winter 2014, p.27; Aviation News April 2015 p.39.
- 11 June 2017 On temporary external display at the annual RAF Cosford airshow.
- 23 Feb 2018 By Road to RAFM Hendon for display in new 'Age of Uncertainty' exhibition, opened May 2018.
- Former No.1 Squadron GR9A ZD433 is at the Fleet Air Arm Museum, Yeovilton, and GR9A ZD461 at the Imperial War Museum, South Lambeth.

**TEXT; ANDREW SIMPSON**

**RAF MUSEUM 2018**