

JOINT FORCE HARRIER

The Farewell Flypast Event

I saw an email on MSF in November 2010 alerting spotters to the farewell flypast of the Harrier in December 2010, planned for the 14th, 15th or 16th, with the decision on the actual flypast to be announced on the 10th. I forwarded this to Simon, another WAG member and we both booked leave. More information came out in early December and I mentioned this to Simon. I had not considered what would be seen on the day, still assuming that we would be on the outside. I thought it would be similar to the retirement of the Lightning, at Binbrook in 1988. On that occasion we found a spot outside the perimeter, waited for hours and saw the nine machines that took off but did not see any of the aircraft whilst on the flightline.

During a family get-together on 12th December 2010, on the Sunday before the planned farewell flypast on Wednesday 15th, I mentioned my intention to go to Cottesmore. The following day one of my brothers telephoned me to ask if it would be useful to me if I was watching from the inside and I replied that I would be extremely keen to go onto the airfield. I checked that it would be alright for Simon to come with me, which it was. Next I contacted Simon, whose interest increased significantly with my news. I considered the event and pondered on additional information from my brother and then discussed the matter further with Simon. My brother said the Station Adjutant had said that a lot of visitors were expected and it would be advisable for us to get there earlier rather than later. We thought it was likely that many people, not all of them spotters, would want to witness the flypast and so many cars would be parked around the perimeter. Therefore we rejected my brother's idea of leaving Simon's car at the Cottesmore cemetery and then driving with my brother onto the base. Instead we decided to go to my brother's home in a village in Northamptonshire, not far from Cottesmore, for around 0900 local, leave Simon's car there and travel in my brother's car and let the day unfold.

On the Monday there was an air-to-air photo event featuring the four Harriers in special schemes/markings and a practice flypast for the sixteen aircraft was planned for the Tuesday. On Monday evening there was a lot of email traffic, some of it quite bad-tempered, as to whether the Tuesday practice would turn out to be the actual event. The practice generated some great pictures of the sixteen machines, which was fortunate. Allegedly the CRO at Cottesmore had said the flypast might involve only one machine because of the expected poor weather. I did hope not. However, my fears were not realised and Wednesday was still on, with the intention still to launch sixteen aircraft.

On the Wednesday, Simon got to my house at 0630, there being an item on the BBC News about the Harrier retirement as he arrived. The reporter for this item we saw at Cottesmore later, along with several other national TV reporters, working for the BBC, ITN and Sky. We proceeded southwards, on the expected M62/M18/A1 route. The massive Haringworth Viaduct close to Gretton was very impressive, and we drove through one of its 82 arches.

We got onto RAF Cottesmore very quickly and without any difficulty. Only my brother's ID was asked for. We parked outside my sister-in-law's office, only a short distance from the hangars. At this point I discovered that I had left my hat, gloves and scarf in Simon's car. Fortunately Simon had a spare flat hat and I accepted his offer, extremely gratefully. My brother, Simon and I walked to the Officers' Mess where we relaxed in the ante room and had coffee. Enroute we saw the parking set aside for the press and media. This was a major

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event. Whilst there we checked that the hangar display was open from 1000. Then we walked to the hangars and flightline area. After noticing several Harriers on the line, we went into the 1 Squadron hangar, where there were two airworthy machines and two preserved airframes, some very good models, numerous photographs on display and several items of memorabilia, along with free refreshments on offer and a huge video screen, showing images of Harriers from the mid seventies to 2010. Some amusement was had when the fire alarm sounded, leading to the fire appliances turning out and causing the drinks area to be cleared and the guests ushered outside, though not for long, fortunately.

Table 1: Aircraft in the public access hangar (1 Squadron markings on its doors):

Version	Serial	Code	Markings	Remarks
GR.1	XV279	N/a	N/a	Preserved
GR.9	ZD352	19	4 (Res.) Sqn.	It had been flown the day before and had been on the flightline earlier.
GR.9	ZG508	79	1 Sqn.	At the far (non-public) end, behind some netting
GR.9	ZG531	85	1 Sqn.	
Sea Harrier F/A.2	ZH800	001	801 NAS	Preserved. Marked as ZH801

[Red text indicates an aircraft seen for the first time.]



Picture 1 My brother and Simon in front of Sea Harrier F/A.2 ZH800

(On 27 December 2010 I was surprised to find a clip on YouTube of the hangar display, which included the three of us).

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My brother was happy to stay in the hangar, where it was reasonably warm, whilst Simon and I checked out the flightline. We read all of the airframes that we could see on the three lines of Harriers, although it turned out later that there was one aircraft we did not identify at the time. The weather became worse, with sleet and rain joining the wind and the bitter temperatures. At one stage Simon commented on the poor visibility, with the trees on the edge of the airfield being very indistinct. Had we been outside the base, it seemed quite likely that we would have struggled to see the flightline, at least for part of the day.

As we got to the western end of the line, we noticed people leaving the 4 Squadron hangar, also known as 'A' Hangar, in reality the long-term store. Trying our luck, we walked up to the automatic doors, which opened and we made our way into the main part of the hangar itself very quickly, where there were over twenty Harriers, most dismantled.

Table 2: Aircraft in the storage hangar ('A' Hangar, 4 Squadron insignia on its doors):

Version	Serial	Code	Markings	Remarks
GR.7	ZD318			
GR.7	ZD319			
GR.9	ZD320	21		Note fitted with the fin from another machine. The correct code is '01'
GR.9	ZD328	09		Heavily stripped down. Being upgraded by BAES as the contract is still valid
GR.9A	ZD346	13A		
GR.9	ZD375	21	1 Sqn.	
GR.9	ZD406	'-'	800 NAS	"Fly Navy 1909 - 2009" special marks
GR.7	ZD407			Aircraft had been permanently withdrawn from use in March 2010 and was already being reduced to produce when the retirement was announced
GR.9	ZD409	38	1 Sqn.	See ZD407
GR.9	ZD410	39		
GR.7A	ZD411	40	801 NAS	
GR.7A	ZD431	43		See ZD407
GR.9	ZD435	47	801 NAS	
GR.9A	ZD461			
GR.9	ZD463			Finless
GR.7A	ZD469			Damaged beyond repair after a rocket attack in Afghanistan, on 14 October 2005, and assigned to ground instructional duties in 2008.
GR.9	ZD470			Suffered a birdstrike on 10 November 2010, post retirement, so damage will not be repaired
GR.9	ZG474	64		
GR.9A	ZG505	76		
GR.7	ZG509			Finless fuselage only, mounted on a frame. In July 2001, at Coningsby, it suffered a APU burn out assessed as CAT 3. Left by road on 21 August 2001, to Cottesmore, then to St. Athan on 4 October 2002, re-assessed as CAT.4 and returned to Cottesmore during 2004. Was being reduced to produce when the retirement was announced
T.12	ZH660	108	4 (Res.) Sqn.	Damaged by birdstrike October 2010
T.12	ZH661			Damaged by birdstrike. Finless

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Picture 2 Harrier GR.9 ZD406 in special markings for the 100th Anniversary of Royal Naval flying. Simon is in the distance, as is GR.9 ZD328 '09'.



Picture 3 Harrier T.12 ZH661, under repair following a birdstrike

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Picture 4 More airframes in the storage hangar, with ZD435 '47', 801 NAS markings, in the background.



Picture 5 Simon close to Harrier T.12 ZH660 '108', 20 (Reserve) Sqn. markings, which had suffered a birdstrike and diverted into Leeming and roaded here in November 2010.

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The other people inside were not spotters and we both sensed that we had to make the most of this staggering opportunity. Therefore we walked quickly along both sides and across the floor, our progress being in the shape of an H. I noted what I could see and we both took a few pictures and then we left. The reaction of the civilian as we left the hangar backed up my suspicion that we should not have been in there.

We made our way along the edge of the flightline eastwards. We had finished checking the flightline when Simon noticed the main doors of the most easterly hangar (800 Naval Air Squadron) were wide open. As we approached we saw other people, not in uniform, walking around inside so we tried our luck again. We were spotted by the time we got to the far end but not before I had read off all seven of the airframes inside. The main doors had been closed by this stage. We were asked very politely to leave, which we did.

Table 3: Aircraft in the most easterly hangar (800 NAS):

Version	Serial	Code	Markings	Remarks
GR.9	ZD327	08A, SH-M	800 NAS	It had been on the flightline earlier today. Bore Battle of Britain 70th Anniversary markings (SH-M) representing a Spitfire I N3122 of 64 Sqn., applied for the RIAT 2010 display, July 2010.
GR.9A	ZD329	10A	1 Sqn.	
GR.9A	ZD348	15A	800 NAS	
GR.9	ZD437	49	800 NAS	
GR.9	ZG480	70	800 NAS	
GR.9	ZG500	71		No unit markings
GR.9A	ZG859	91	4 (Res.) Sqn.	It had been on the flightline earlier today. It had arrived the previous day from Wittering, being both the last to leave there and the last Harrier to join the fleet at Cottesmore.

Then we rejoined my brother in the 1 Squadron hangar, where we enjoyed a free hot lunch and a very welcome hot drink. I had the lasagne option, whilst the other two went for the chicken curry. Today there were no lunches being served in the Officers' Mess as all of the catering staff were committed to providing meals for the 2,000 visitors on the station. The live pilots' briefing was shown on the huge video screen but the sound was largely inaudible due to the hundreds of people in the hangar talking. My brother had heard that the flypast had been delayed by 30 minutes.

After a while I went to check what was going on outside. One aircraft was crewed up, with its engine running and there were dozens of people lined up, ready to watch and photograph. I dashed back in, told my brother and Simon and we found a good spot towards the western end, after I had asked a naval pilot which was the active end. The aircraft would be taking off from Runway 04, heading towards the A1, so would taxi to our left.

I was surprised that I had seen no other spotters. I know a lot of enthusiasts are also avid photographers but I had not seen or heard any serial recording activity, apart from one person in the storage hangar who was very interested in one of the development aircraft. Neither Simon nor me saw any familiar faces. I know one enthusiast had stated on the Fighter Control forum that he had got his ticket for the event but I would say it seemed to be a spotter-free location. I was surprised at the posting as it was the first indication that there were tickets and it was too late to apply for them, even if I knew how to have done so.

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Picture 6 *Nearest to the camera is Harrier T.12 ZH657 '105', 4 (Reserve) Sqn., callsign SATAN 1, with its engine running and crew on board, about to taxi. It was the only aircraft from this line, nearest to the hangars, to take off. The others are (left to right) T.12 ZH663, '111', 1 Sqn., (which was the only two-seater on the flightline not to take off today), GR.9 ZD402 '31', 1 Sqn., GR.9 ZG501 '72', 800 NAS, GR.9 ZD438 '50', 1 Sqn., and in unknown order, GR.9 ZD401 '30', 4 (Res.) Sqn., GR.9 ZD403 '32', 1 Sqn., and two others unidentified.*



Picture 7 *Simon getting his camera ready whilst my brother is pondering how much fun plane-spotting can be.*

After several minutes Harrier T.12 ZH657 taxied. It was the combined camera and weather ship. One by one the pilots selected for the main formation walked out to the flightline from the 1 Squadron Hangar and the sound of Rolls-Royce Pegasus engines grew louder. Then ZH657 took off. We endured the biting cold, although the sleet had gone. People's breaths were obvious by the white-cold air around their mouths. The warmth from the jet exhausts was very welcome. Gradually aircraft taxied out to the western end, moving to our left. Some of the crowd moved too far across the grass towards the pan and were ushered back by junior airmen under the watchful eye of the Station Warrant Officer. At one point, aircraft No.10 (ZD347) was holding on the edge of the flightline, with the first nine all still on the ground ahead of it.

The GR.9 or T.12 is a GR.7 (retired from service on 31 March 2010) or T.10 upgraded in terms of avionics and weapons. This involves the fitting of an advanced Global Positioning System and the ability to carry laser-guided Paveway IV bombs, and infra-red and television-guided variants of the Maverick missile to achieve high precision ground attack capabilities. The GR.9 and T.12 will be able to carry up to six Paveway IV bombs, which will be linked by a new onboard computer. The Successor Identification Friend or Foe (SIFF) system will also be installed making it less vulnerable on operations. The variant is also expected to carry the advanced Brimstone "fire and forget" anti-armour missile. The engine fitted to these two variants is the Rolls-Royce Pegasus Mk.105 engine, 21,750 lb. thrust, whilst the GR.9A and T.12A are GR.7As (also retired from service 31 March 2010) and T.12s fitted with a Rolls-Royce Pegasus Mk.107 engine, which can deliver 23,800 lb. of thrust.

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Table 4: *The aircraft that got airborne were (listed in formation order):*

Version	Serial	Code	Markings	Remarks	Callsign	T/O slot
T.12	ZH657	105	4 (Res.) Sqn.		SATAN 1	
GR.9A	ZG506	'-'	None	In 1970s toned-down scheme; with the text "Nov 1960 to Dec 2010" on the fin, with the 1960 referring to the P.1127	NINJA 1	1
GR.9	ZG857	EB-Z	1 Sqn.	Bore retained 41 (Res.) Sqn. markings	NINJA 2	2
GR.9	ZD379	27	1 Sqn.		NINJA 3	3
GR.9A	ZD467	57A	1 Sqn.		NINJA 4	4
GR.9	ZG477	'-'	1 Sqn.	Red & white fin with the text "1969 – 2010"	JEDI 1	5
GR.9A	ZD433	45A	1 Sqn.		JEDI 2	6
GR.9A	ZG472	62A	1 Sqn.		JEDI 3	7
GR.9A	ZG479	69A	1 Sqn.		JEDI 4	8
GR.9A	ZD351	'-'	800 NAS	Red fin with the unit's Battle Honours recorded and text "1980 – 2010"	COUGAR 1	9
GR.9A	ZD347	14A	800 NAS		COUGAR 2	10
GR.9	ZG862	94	800 NAS		COUGAR 3	11
GR.9	ZG502	73	800 NAS		COUGAR 4	12
GR.9	ZG858	'-'	4 (Res.) Sqn.	Black, yellow & red fin with the text "1970 – 2010"	POISON 1	13
T.12A	ZH665	113	4 (Res.) Sqn.		POISON 2	14
T.12	ZH659	107	4 (Res.) Sqn.		POISON 3	15
T.12	ZH664	112	4 (Res.) Sqn.		POISON 4	16

Most of the pilots waved at the spectators. I made notes as to which aircraft taxied and the order. In pairs, the planned sixteen aircraft got airborne, the jet exhausts throwing up spray along the runway. The Station Commander and the last Joint Force Harrier Commander, Group Captain G.M. Waterfall, was the first airborne, in ZG506, which was in a scheme very similar to that of the mid 1970s.

As soon as the seventeen jets were up, the remaining aircraft on the line were towed away and hangared. By this stage we were all very cold and my thigh muscles were aching because of it. None of the military personnel were wearing headgear and I was extremely pleased that there was no insistence that civilians did likewise.

Table 5: *Those remaining on the flightline:*

Version	Serial	Code	Markings	Remarks
GR.9	ZD321	02	4 (Res.) Sqn.	
GR.9	ZD330	‘-‘	4 (Res.) Sqn.	Black, yellow and red fin but with no text (see ZG858, callsign POISON 1, in Table 4)
GR.9A	ZD378	26A	1 Sqn.	
GR.9	ZD401	30	4 (Res.) Sqn.	
GR.9	ZD402	31	1 Sqn.	
GR.9	ZD403	32	1 Sqn.	
GR.9A	ZD436	48A	1 Sqn.	
GR.9	ZD438	50	800 NAS	
GR.9	ZD468	58	1 Sqn.	
GR.9	ZG501	72	800 NAS	
GR.9A	ZG504	75A	800 NAS	
GR.9	ZG530	84	800 NAS	
T.12	ZH663	111	4 (Res.) Sqn.	

We returned to the 1 Squadron hangar as quickly as possible, eager to get some shelter from the wind and the cold. Unfortunately the queues for the refreshments were very long and we decided to try elsewhere. The coffee shop nearby was closed so we visited the Officers' Mess again. During a coffee there we heard the sound of a Harrier in the circuit, earlier than we had expected. After two or three minutes we decided to go back to the flightline as the sound returned again. As we got within a hundred yards of the hangars, the first aircraft to return (POISON Flight), arrived overhead in starboard echelon formation. The poor weather conditions had caused the planned diamond sixteen to be replaced by four separate groups, hence the appearance of four aircraft not sixteen. At least some of the locations meant to be overflown today were unlucky.

We all ran and made it to the crowd line as the four aircraft were making their approaches. Within five minutes the next group of four (COUGAR Flight) was back, followed soon after by the third wave (JEDI Flight). The leader of each foursome was in special markings and these aircraft were the last of their respective formations to touch down. From each formation, at least the leader did a hover and bow in front of the spectators. By the time the last fourship returned (NINJA Flight, which became KESTREL Flight during the mission), the weather was getting worse, with some of the machines being very hard to spot when they were in the circuit. Then the last four all transitioned into the hover. The leader remained up whilst the others landed and then he bowed to the crowd, turned through 180 degrees and climbed upwards and to the west before landing to the north of the runway. This was very likely to be the last public display of a British military Harrier. Not visible to me, the twelve aircraft in normal markings taxied to the end of Runway 04 and then back to the flightline, allowing the spectators on the outside a good look.

Meanwhile, the four leaders' aircraft were making their own ways to the flightline area. ZG858 (piloted by Wing Commander Simon Jessett, OC of 4 (Reserve) Sqn.) and ZD351 (pilot Commander Dave Lindsay, CO, 800 Naval Air Sqn.) approached from the east, both pausing to let other aircraft pass. From the west ZG477 (its pilot Wing Commander Dave Haines, OC 1 (F) Sqn.) taxied in, having landed conventionally on the runway and then turned to the north to begin its long return, and eventually it stopped close to the taxiway.

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Picture 8 *Harrier GR.9 ZG477 taxis in, in front of the flightline. Another 1 Sqn. machine is in the background and a two-seater is taxiing in.*

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Picture 9 ZG477 is soon to turn left before turning right and stopping. The Harrier on the right has stopped whilst the example on the left is still taxiing



Picture 10 ZG477 is about to come to a rest. Three other Harriers are visible on the furthest flightline



Picture 11 *ZG477 has stopped and chocks have been placed around its nose wheel. ZG506 is being marshalled in from the left, with all of the four groundcrew watching it in. Two of the other aircraft from the flypast formation are on the line closest to the runway (04/22)*

Whilst also from the western end, ZG506 moved along the taxiway, following ZG477 for the last part but it did not turn off; it simply parked on it, to the right of ZG477 and closer to the spectators.



Picture 12 *ZG506 about to come to a halt.*

The four aircraft piloted by the four leaders stopped in a semi-circle, nose inwards, namely the Station Commander, (in ZG506), and Officers Commanding 1 (Fighter) Sqn., (ZG477) and 4 (Reserve) Sqn., (ZG858) and the Commanding Officer, 800 NAS, (ZD351) (from left to right) not on the normal parking area but closer to the hangars, the Station CO being the last pilot to bring his aircraft to a halt.



Picture 13 *The four leaders converge, all four pilots are still on their cockpits. The children in front of me are current pupils from Cottesmore Primary School, my first school (1965-67).*

At his command, at 1450Z, the sixteen aircraft shut down their engines simultaneously. The winding down of the engines and the following silence was very effective and impressive. It was a very British way of marking the event. The Joint Force Harrier Commander climbed out of the cockpit, walked along the top of the fuselage and jumped down from near the tail. He joined the other pilots and the ground crew, who all walked through a guard of honour formed by a Scottish pipe band. They were greeted by wives, girlfriends and children and friends. It was not a sad ending as people seemed happy to mark the retirement of the Harrier Force in a positive way.

Three Hawks from the Red Arrows, flown by former Harrier pilots, then flew past, trailing white as they went.

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The following pictures were taken very shortly after the pilots and groundcrew had walked through the guard of honour, formed on the taxiway in the foreground.



Picture 14 ZG506



Picture 15 ZG477

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Picture 16 ZG858



Picture 17 ZD351

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Picture 18 *ZG506 and ZG477*



Picture 19 *ZG858 and ZD351*



Picture 20 ZG506, ZG477, ZG858 and ZD351

Table 6: *Other aircraft present on the base:*

Type	Version	Serial	Code	Markings	Remarks
Harrier	GR.3	XW917	L	3 Sqn.	Gate guardian
Sea Harrier	F/A.2	ZH801	123	800 NAS	Painted as ZH800. Near flightline
Hunter	F.6A	XE606		4 Sqn.	Close to the flightline

It was a very memorable day for many reasons as Cottesmore has special significance for my family. We had gone past the cemetery, near the Main Gate, where my father is buried. On the station, I saw the house we had lived in from 1965-67, 1, Oakley Road, and my first school, Cottesmore Primary. We walked past the HQ of Supply Squadron, where Dad worked when based here.

My first recollection of seeing Harriers was when we lived at Wittering in 1970, within a year of entering service and the first air display where I saw a Harrier perform was at Cottesmore in 1971. The least important element of the day was me making seven of the eight Harriers at Cottesmore that I needed, the eighth airframe being in the only hangar that we did not gain access to. This day will always be memorable regardless of how many Harriers that I made.

I wish to acknowledge my brother and sister-in-law for their assistance without which the event would have been less memorable, and Simon my fellow spotter and driver. Also those spotters who posted information on the various forums. All photographs shown were taken by me. The information concerning codes and markings carried is based on my sightings on the day and the photographs taken by myself and Simon.