MACH 2 Concorde magazine The end of supersonic travel Issue 40 The British Airways Concorde November 2023 fleet retires

INTRODUCTION

Just over 20 years ago, on 24 October 2003, three British Airways Concordes touched down at Heathrow, bringing an end to 27 years of Concorde passenger services.

In this issue we remember that poignant day, with recollections from pilots, the experience from the cabin, a ground engineer's memories, and an account from Air Traffic Control.

Although the aircraft are now static displays and museum exhibits, they still live in our collective memory. Mach 2 reports from three anniversary events in which Concorde is honoured. Mach 2 also reviews a new book by Concorde pilot John Tye, and a film celebrating the history of the aircraft.

Finally, Mach 2 bids a sad farewell to Concorde flight engineer David Macdonald, who died in August. As well as supporting Concorde throughout her career, he was a great friend to this magazine. He will be missed.

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Editor: Katie John

Cover photo: The three Concordes, led by G-BOAG, taxi around Heathrow on 24 October 2003, having brought scheduled Concorde services to an end.

Photo: Adrian Meredith (concordephotos.com)

A DAZZLING FINALE

The triple landing of British Airways Concordes G-BOAE, G-BOAF, and G-BOAG made a dazzling finale to 27 years of scheduled supersonic passenger services for the airline. In this feature we look back at that poignant day, and hear from some of the people involved.

THE END FOR CONCORDE was announced on 10 April 2003. Air France retired their fleet at the end of May (see Mach 2, Aug 2023). British Airways (BA) planned a more elaborate send-off befitting the aircraft that had conferred a halo of glamour on them since services began in 1976.

Bowing out in style

The BA team put together a 2-month programme of retirement flights around the

"admirers would have the chance to say goodbye to this much-loved aircraft"

UK and to North America (see Mach 2, Oct 2018) so that admirers would have a chance to bid goodbye to this much-loved aircraft. The aeroplanes attracted a massive following among spectators and in the media. Even HM the Queen turned on the lights at Windsor Castle to salute the last outbound flight to New York.

The participants

The closing events started with G-BOAG flying to New York on the evening of 23 October. The final day, Friday 24 October, would see a historic triple landing, with the three Concordes touching down in succession just after 4.00 pm – first G-BOAE, returning from Edinburgh and carrying BA staff who had won their tickets in a prize draw; then G-BOAF, after flying invited guests and VIPs around the Bay of Biscay one last time, and finally G-BOAG, returning from JFK with a full complement of VIPs.

Captain Adrian Thompson recalls flying G-BOAG for the last time from Heathrow to New York on 23 October. Chief Concorde pilot Mike Bannister talks us through the decision to retire the fleets and the extensive preparations for the BA final flights, as well as recounting his experiences of that last day. We also hear from Samantha Kingdon, a cabin crew member on the flight from Edinburgh to Heathrow, and from ground engineer Carl Percey, as well as from one of the air traffic controllers involved in coordinating that triple landing.



G-BOAE
Alpha Echo is the first of the three to come in to land, at 4.02 pm. Photo: Jetinder Sira

The three flights

The flights landed at 2-minute intervals: G-BOAE from Edinburgh, then G-BOAF from the Bay of Biscay, and finally G-BOAG from New York.

G-BOAE: EDI-LHR

Captain: Les Brodie Senior First Officer: Paul Griffin Senior Engineer Officer:

Trevor Norcott

Cabin Service Director: Jerry Smith

Purser: Sue Berry Cabin crew members: Iona Ferguson, Sam Kingdon, Linda Martin, Craig McCormick, Joanne Van Gaver

G-BOAF: LHR-LHR

Captain: Paul Douglas Senior First Officer: Mark Jealous Senior Engineer Officer: Pete Carrigan

Cabin Service Director:
Lorraine Longden
Pursers: Louise Brown, Karen Robb
Cabin crew members: Zoe-Ann
Corfield, Tarnia Gadd, Joanne
Lewsley, Jason Smith

G-BOAG: JFK-LHR

Captain: Mike Bannister Senior First Officer: Jonathan Napier Senior Engineer Officers: Dave Hoyle, Robert Woodcock

Cabin Service Directors: Tracey Percy, Clare Sullivan Purser: Julia Van Den Bosch Cabin crew members: Heather Ellis, Andrew Hayden, John Middleton, Sabre Moate

Final approach

The Concorde crews bring their three aircraft home.

Photo: PA Images / Alamy



In-service flight records

The seven British Airways Concordes did not just provide the ultimate luxury experience for passengers – they also set flight records throughout their operational lives, from initial route proving to the final journeys.

| 1 September 1975 | During the route-proving programme before certification, G-BOAC crosses the Atlantic four times in one day, flying between Heathrow and Gander, Newfoundland. |
|----------------------|---|
| 11 September 1984 | G-BOAB sets the distance record of 3,965 nautical miles (7,343 km / 4,563 statute miles) on a flight from Washington to Nice with 54 passengers in 4 hours 7 minutes. |
| 13 February 1985 | G-BOAE sets a speed record for London to Sydney, covering the journey of around 17,016 km (10,573 miles) in 17 hours 3 minutes 45 seconds – including stops at Bahrain, Colombo and Perth. |
| 28 March 1985 | G-BOAC sets the London to Cape Town speed record in a time of 8 hours 9 minutes (including a stop of 1 hour 36 minutes at Monrovia, Liberia). The next day, G-BOAC returns to London via Liberia in a time of 8 hours 6 minutes (including a stop of 1 hour 20 minutes at Monrovia). |
| 19 December 1985 | G-BOAC achieves the highest recorded ground speed for an airliner in commercial service, of 2,395 km/h (1,488 mph). |
| 9 April 1988 | During Grand National weekend, the <i>Liverpool Echo</i> newspaper charters two Concordes to mark the 150th anniversary of the race. G-BOAD and G-BOAE fly up from London and make 2 supersonic round trips each from Liverpool Speke (now John Lennon) airport over the Irish Sea on the Saturday; G-BOAD makes a further 2 round trips on the Sunday. The two aircraft carry 1,000 passengers over that weekend. |
| 7 February 1996 | G-BOAD, crewed by Captain Leslie Scott, Senior First Officer Tim Orchard and Senior Engineer Officer Rick Eades, sets the New York to London speed record: 2 hours 52 minutes 59 seconds. |
| 11 August 1999 | BA Concordes G-BOAA and G-BOAC, with one Air France Concorde, follow the solar eclipse over southwest England and the Bristol Channel. |
| 8 October 2003 | G-BOAD, captained by Mike Bannister, sets the London to Boston speed record, with a time of 3 hours 5 minutes 34 seconds. |
| 5 November 2003 | G-BOAG, flown by Captain Mike Bannister and Captain Les Brodie, is granted special air traffic control clearance to fly supersonically over the uninhabited areas of northern Canada, enabling the aircraft to set a record for the fastest east—west flight over North America, from New York to the Museum of Flight in Seattle, in 3 hours 55 minutes 12 seconds. Ending on a high note 5 November 2003: G-BOAG comes in to land at the Boeing airfield in Seattle, having set one final record for the fastest flight across North America by an airliner. Photo: Peter Duffey |

The beginning of the end

Captain Adrian Thompson gives his personal account of Concorde's historic last 001 flight from Heathrow to New York – the lead-in to the final flights that would take place the following day.

I CLIMB INTO MY SEAT for the final flight to New York and feel the familiar frisson of excitement – but it fails to replace the sense of sadness that had descended on me during the drive to Heathrow. My crew are also uncharacteristically subdued.

An emotional send-off

We start our engines and push back. Just before we taxi, the whole ramp area bursts into light as all the ramp workers at Terminal Four pay tribute to us by lining up each side of the cul-de-sac beside a double line of de-icing trucks with their hydraulic platforms all extended.

They turn the hoses on and we slowly move through a tunnel of spray. I grab the Union Jack flag which had been placed on board for the return ceremony, open my window and wave it furiously. Hundreds of people jump up and down and wave back.

As we line up on runway 09R, there are lots of farewell transmissions from Air Traffic Control and other aircraft.

Les Evans is my co-pilot on that last flight. He is transmitting standard calls – but as we line up and are given clearance for take-off, on impulse I take over the radio.

I know that there is quite a fanclub patiently waiting at the end of the runway to watch the final take-off and that many of them would be listening in on their airband radios, so in reply to the take-off clearance I dedicate this last take-off to them and say that if Concorde was alive it would be "crying supersonic tears" tonight. I then transmit our callout of "3-2-1 now" as we shove the throttles forward.

The engines roar, the afterburners light up and I'm pinned to my seat. All too soon the co-pilot calls 'rotate' and I ease her into the air amid thousands of camera flashes. I can make out the crowds with faces upturned in awe and hands clamped against ears, but nothing can reduce the earth-shaking noise of the engines. I know she looks good at night with the white-hot jet plumes from her afterburners clearly visible.



Going out in a blaze of glory A still from a film showing Alpha Golf's stunning take-off that night. *Photo: Adrian Thompson*

Putting on the power

I turn right and head westwards. Windsor Castle is lit up in tribute to Concorde, and on the ground not one car is moving.

I ask ATC if I can take up a heading that will put me on course to fly over Tadley. We remain in controlled airspace but level off at 3,000 ft. Once we are over Tadley, I carry out a full-power climbing turn to comply with ATC instructions. It causes quite a stir on the ground, to put it mildly! (I still get beers bought for me to this day because of this.)

Abeam Swansea we light her 'burners again and accelerate into the stratosphere, that hostile place that allows nothing but Concorde to enter and which she makes her home. She is now flying faster than a bullet. The Sun slowly rises above the western horizon in golden majesty and kisses her wings one final time. Few people have ever seen this, and it's hard not to believe in God when you do.

All too soon it's time for 'reentry'. I hand control over to my co-pilot, who loves to hand-fly the deceleration and descent. Les (an ex-RAF test pilot) would say that he always thought there was a more



Heathrow pays tribute to G-BOAG

As Alpha Golf prepares to leave, workers on the de-icing trucks turn on their hoses to salute the aircraft and crew. *Photo: Adrian Thompson*



A vanished glory

A sight that airline passengers can no longer see – the Sun rising in the west as Concorde heads to New York. Photo: Adrian Thompson

efficient way to carry out the decel/descent than that advocated by BA. As it is our last flight, I hand control over to him and say, "show me" – big mistake! Most of the forward galley nearly ends up on the flight deck – it did save fuel, though...

Saying goodbye

Subsonic now, and much lower, I take over and line up with runway 31R at John F Kennedy airport, Alpha Golf's elegant nose pointing at the Empire State Building in the far distance. Final approach, and we can see the welcoming crowds and helicopters (we are being filmed live for television).

I close her throttles, ease her nose up and the wheels touch – the final landing at New York! We taxi to the stand through the water cannon arch. I open the window and wave the Union Jack once again. The Americans love it – they understand such gestures.

We park, and my engineer shuts the engines down. Eventually, when the last autograph has been signed, I'm



The flight crew

Captain Adrian Thompson, Senior First Officer Les Evans, and Senior Engineer Officer Mike Hollyer pose in front of the sunrise. *Photo: Adrian Thompson*

left alone on the flightdeck. It's hard to think that I will never sit in this seat again or look through Concorde's visor over her long and slender nose. It's almost too much to bear.

Men of vision designed this wonderful machine, men of passion built her, and, I hope that it will be said, men of skill and daring flew her.

To those who never flew Concorde, my commiserations; you missed out on one of life's great experiences. To those few who have, my heartfelt congratulations, for you truly did "slip the surly bonds of Earth".

The gruff voice of my engineer breaks my reverie. "Come on, Adrian. It's all over, mate. You can't take it home with you."

Much later, as I unpack at home, I unpin the 'Concorde Captain' name-badge from my shirt – a rather cheap plastic square that represents the dreams and ambitions of a young man, and the joys and experiences of a much older one. I wipe away the tear that has fallen on it with my thumb, put it in the drawer, and walk away.



One more sunset

Alpha Golf arrives at JFK, just as the Sun starts to go down over her for the second time that day.

Photo: Dmitri
Avdeev /
Wikimedia
Commons (CC
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Planning the retirement

British Airways' Chief Concorde Pilot Mike Bannister led the planning for the triple Concorde landing of 24 October 2003. He recalls the lead-in, the day itself, and the aftermath in an interview with Mach 2 editor Katie John.

The decision to retire Concorde

We need to go back a bit to the beginning of 2003, when the potential for retirement was being discussed inside BA. As you might imagine, I was vehemently arguing against retiring the aeroplane. I understood the commercial aspects of it, but my argument was that the aviation industry is cyclical, and although Concorde was losing money at that moment it would come back. It was the thing that set British Airways (BA) apart from all other airlines in the world except one, and if we could ride the storm, it would be for our longer-term benefit.

Unfortunately, my argument didn't carry the day and when it got to a board-level decision, despite my pitching as hard as I could, I didn't get the outcome that I wanted. Now you're faced with a decision – do you throw your toys out of the pram or do you accept collective responsibility and get on with it?

I chose the second option because I was determined that if we were going to retire the aeroplane then we really needed to make sure that the retirement was a celebration and not a wake.

Concorde had been in successful service with BA for 27 years, which was significantly more than anybody ever expected. So many people had been involved in the aeroplane: 50,000 people who were involved in the design and manufacture, and at any given time 250 people at BA were directly connected with operating



An enduring icon

Concorde won affection and admiration across the world. Spectators at Heathrow wave Union flags in an outpouring of pride for one of the final three on 24 October. *Photo: Graeme Robertson / Getty Images*

the aeroplane. Two and a half million people had flown on it with BA, and the British public had paid their fair share of the design and development costs. And, it's an overused word, but Concorde was an icon because people would still stop and look up every time it flew over. So I was absolutely determined that this would be a celebration.

Part of that was to work out exactly what that celebration would look like. We couldn't be too triumphant, because we needed to be mindful of the Air France accident. But at the same time, we wanted to celebrate all that Concorde had done.

I was the person chosen to announce Concorde's retirement, on 10 April. (It was originally going to be 9 April, but we pointed out that that was the anniversary of the first flight of the British-assembled Concorde.)

We needed to get Concorde to the places where she had been so successful. In the following months we sent Concordes to New York, Barbados, and Boston, and on a tour round the UK, so that people could have, if you like, the final view of the aeroplane or the final opportunity to wave as she flew over.

Planning the final day

Then we started focusing on the last day. Air France had retired their fleet in May, so this was really going to be a show just for us, which gave us more flexibility and we wanted it to be something that would catch the public eye and catch the emotion of the moment.

We went for 24 October because it was coming up towards the "season change" for the airlines (season changes occur when the clocks go forward or back); 26 October was the day the clocks went back, and 24 October was the ideal date for us as this was the Friday before. We figured that a Friday would bring in more publicity for the airline than a Saturday or a Sunday, and we wanted this to be a publicity event that would reflect well on BA.

How could BA do this beyond just rocking up with one aeroplane? We had five aeroplanes that had been modified after 2000, so that gave us quite a lot of flexibility. Clearly the last scheduled flight from New York to London was going to be the aeroplane that had been set aside for that flight anyway. Out of the remaining four, we figured that we needed two aircraft for the celebrations, plus two others as standbys in case one of the front runners was unserviceable – so that made three flights by default.

What time did we want the aeroplane to arrive from New York? On 24 October, dusk in London would be around 5.30 or 5:45 pm local time. And we had to build in a bit of a buffer before that because it's not just the aircraft landing, it's all the activities after it. So the natural arrival time became 4:00 pm.

Next question: how do we enhance this to make it a really striking once in a lifetime occasion? Well, we had also had aeroplanes regularly flying charter flights, which had become quite a large part of our business. The mainstay of those flights was the flight around the Bay of Biscay, from Heathrow to Heathrow. We also branched out and did 19 round-the-world flights with the charter programme, and visited 252 destinations around the world. So a charter flight would be the second special flight. The other one we wanted to do was Edinburgh because Scotland's contribution to the Concorde programme was significant but often underestimated or indeed overlooked. So we felt that an aeroplane arriving from Edinburgh, another having flown around the Bay, and the third from New York would do the trick.

Coordinating the landings

We worked out that the best time for the first of those three aeroplanes to arrive was 2 minutes past 4 pm. This was because we knew that the TV crews do their news on the hour. Let them do their news bulletin, and then we'll have our aircraft arrive.

Which one arrives first? It's clear that the one from New York would arrive last, so we would need to get the Edinburgh one and the one that's gone round the Bay in first.

Coordinating all of this involved conversations with air traffic control (ATC) in New York, across the Atlantic, Gander oceanic, Shanwick, and of course ATC in the London area and at Heathrow to get all three aeroplanes in the same piece of airspace at the same time, and for ATC

to vector the aeroplanes so that they can arrive at 2, 4, and 6 minutes past four. Given that they're the professionals in this area, after stating what we would like to achieve we left the details to them.

So the two aircraft, the one from New York and the one that has gone around the Bay, would be coming into Heathrow from the south and the west. And the one for Edinburgh would be coming from the north. So that's quite convenient.

"All we had to do was to get the aeroplanes in the right place at the right time"

That gives some separation and then it's up to Heathrow air traffic control to vector those three aircraft round to get them in a landing pattern, one after the other.

All we had to do was to get the aeroplanes in the right place at the right time and that's where the BA operation came into full swing. The most difficult, of course, was New York because it had the furthest to travel and thus more opportunity for disruption. So we needed to get that aeroplane airborne at 14 minutes and 32 seconds after 7:00 am in New York so that it could arrive in London to join up with the other two at the right time. We also had to be mindful that that's the one with the least excess fuel available - we had plenty of fuel, of course, but not as much as the other two, which had only travelled a short distance and were tanked to the gunwales.

Leaving New York

The crew decided that we would get to the airport really early. We got to Kennedy at 5:00 am local time because we wanted to make sure we got the aeroplane fully prepared and because we knew there were going to be loads of celebrations going on. It was still dark – the first and only time in my career when I ever

arrived for a New York Concorde departure in the dark.

When we arrived at the aircraft, there were lots of well-wishers, lots of people who wanted to come and talk, so it was really quite busy. I'm glad we left so much time. And then as the departure time came nearer and our customers were arriving, there was a really big media event taking place actually in the terminal at New York and obviously we couldn't let that impinge too much on getting the aircraft away on time.

We needed all the passengers and crew in the right place at the right time. But we also knew there was going to be media attention and we had called a press conference. I had thought about this and decided the best thing I could do would be to ensure we had an absolutely full crew. That was the first step. So we needed a full cabin crew. We also needed extra flight crew in case of any sickness in New York the night before. Thus we had a captain, co-pilot, a spare pilot, and two flight engineers. The spare pilot was a captain because they can sit in either seat, so that gave us multiple coverage, and it enabled me to go up and talk at the press conference and chat to the passengers whilst my colleagues were preparing the aeroplane.

Unbeknownst to me, the TV stream for the event would be going out all around the world, which was hysterical because I hadn't prepared a speech. I just found out I was talking to the TV cameras about 30 seconds before it happened. Presentation was key; we needed to be mindful of one of the reasons why the aeroplanes were being retired, which was to do with the Air France accident. So we've got to be not too triumphant or jubilant, but at the same time give people a celebration.

As we were taxying out, waving our flags out of the window, the New York Kennedy Fire Service laid on a red, white and blue water arch for us to taxi through, which was



A spectacular send-off

The fire trucks of the New York Kennedy Fire Service bid goodbye to Alpha Golf with a red, white and blue salute. Photo © Carl Jacobson / JetPhotos.Net

quite spectacular. Then out on the end of the runway. Sit there until exactly the right second with air traffic control counting us down. Get airborne, and then from our perspective, a normal flight across the Atlantic.

Arriving at Heathrow

We got airborne at the right time. We came across the Atlantic without any particular incidents or anything that wasn't normal – apart from continuous and very welcome thanks from air traffic controllers, other aircraft, other ground stations that were listening in.

We were in contact with British Airways at Heathrow all the time with our long-range radios, so we knew when we were about half-way across that the other two aircraft had got away on schedule. So we were optimistic that it was all going to fall into place.

Then we arrive over the West Country and the UK and we're heading towards the radio beacon at Ockham at the old airfield at Wisley, near the Royal Horticultural Society Gardens on the other side of the A3. It's then that ATC takes control of what's going on and they start vectoring the aircraft around to get us in the right landing pattern. We didn't know what that was going to be; they just picked us and we did what they asked us to do.

And now, behold, they took us – the last aircraft, the New York aircraft – right over the top of Heathrow, from south to north and then right over the top of the air traffic control centre at West Drayton, so that those that weren't actually on duty could come out and wave! Then round to the north, which we weren't expecting, and then we came in.

Sitting at the back of the line, I could quite clearly see the other two aircraft ahead of us. We had coordinated what speed we were going to fly the approach. We would normally fly our approaches at 190 knots down to 800 feet and then slow to about 162 knots; but obviously if the first aircraft did that, the other two would



American enthusiasts

Concorde enthusiasts wave goodbye from Howard Beach as Alpha Golf heads out over the Atlantic. Photo: Associated Press / Alamy

concertina up behind it. So what we did was to fly at 190 until the first aircraft started to slow, then the other two started to slow as well.

The police and the authorities had turned Heathrow into a no-go area unless you were staff or a member of the travelling public on aircraft. You couldn't go as a spectator, as it was almost sealed off, so consequently there was a massive number of people some distance out from the airport. I remember, looking out of the window as we were coming in to land on 27 Right and seeing, down the A4, thousands upon thousands of people who had stopped there as close to the airport as they could get to watch us.

Again, I distinctly remember a chap standing on the top of a huge white van, waving this enormous union flag; it was him pulled across the carriageway that had blocked the road.

Then on to land, and taxying into the reception that we had organised at the engineering base at Heathrow. Now our aircraft in from New York had landed third, but we wanted that aircraft to be the first to arrive at the reception base. So, we went directly there whilst the other two aircraft went all the way around Heathrow – both to get in the right position and because we knew there were lots and lots of people who wanted to see the three flights arrive.

Heathrow Fire Service had learned what New York had done and they decided to put on a water arch as well. We had been told about that on the way over. As we, now being the lead aircraft, were taxying off towards the reception, we opened the windows and put our flags out. I'm on the left-hand side and Jonathan Napier, my co-pilot, is on the right-hand side. As we approached the water arch, the procedure was dead easy – flag in, close window, under water arch, open window, flag out. Well, we came towards the water arch. I pulled the flag in and tried to close the window.



Under the water arch

Like their American counterparts, Heathrow Fire Service welcome Concorde home with a water salute – which, unfortunately for the pilots, does not go quite as intended! *Photo: Joseph Madden*

Ohh no – the window's jammed.

And as we taxied under the water arch, I couldn't close the window. The whole fire hose amount of water came directly in through the pilot window. I got absolutely drenched, as indeed did quite a few of the instruments on the centre panel.

I am dripping wet, but never mind. You know, the show must go on. So, we arrived, got off the aeroplane, and customs were great. We were very quickly cleared and then it was off to the temporary PR stand where the first interview was going to be with Richard Quest from CNN, who I knew quite well. I'm still soaking wet, and as it's October I'm getting quite chilly. I get to CNN, and I'm walking towards Richard. I am naturally duckfooted, and I'm squelching as I approach him. There's a track of footprints behind me – they look just like Daffy Duck. Well, he of course was laughing so much that he had to delay that interview until a bit later.

Nevertheless, the publicity from the event was so positive that we achieved the objective. It celebrated 27 years. We didn't make too much sensationalism out of it. It was respectful. People did engage with it and people did far, far more see it as a celebration of Concorde than "isn't this awful – Concorde is retiring".

KJ: Did you know you'd have to fly over London and then come back? I remember you doing that.

We knew before the day of the flights that the forecast was that the winds would be from the west and that we would be landing on 27. We wanted to land on 27 Right because that was a shorter taxi towards the hangar

Among the crowds

Despite official warnings advising people to stay away from Heathrow, thousands of people gathered around the airport to watch the Concordes come in – on the roadways, at the perimeter fences, even on the tops of the car parks. *Photo: John Jones*

for us. It was also better from the press coverage point of view. There's the line of hotels on the A4 on the northern side of the airport which provide very good platforms for TV cameras. From the aerial TV shots 27 Right worked better. So 27 Right was our preferred runway and it just so happened, purely coincidentally.

And we knew that they were going to vector us in as close to each other as possible. We could have got closer, but we wanted each aircraft to be clearly seen coming down – the approach with the other two behind it – then landing, rolling out, clearing the way, and the focus would go on to the next aeroplane so that there was no break in the coverage.

KJ: And there is that fantastic shot of the three of you, all coming in and we could see all of you in the air.

That was part of the pre-planning. That's why we hoped that the weather on the day would be good. Of course, had the weather on the day been awful, we could still have done it because all three aircraft are equipped with auto-land. But we definitely wanted a fine and clear day, which it was, thank goodness.

KJ: It was. Yes, I remember. I was standing on the top of Terminal 2 car park. We shouldn't have been there, but there were hundreds of us, and they couldn't stop us. Funnily enough the restrictions on people coming to the airport were so stringent that my wife Chris and my daughter Amy couldn't even get into the airport to watch us arrive. Fortunately, they had a chance to stand on the Arora Hotel opposite. So they were close, but they couldn't get into the airport itself.

KJ: What is your strongest memory of that day?

There was a reception for 220 people in the hangar – predominantly British Airways people, with a few special guests who were really regular customers. And at the end I was the very last to leave. It's now about



"Perfectly serviceable"

Darkness and mist envelop the BA Concorde fleet – five perfectly serviceable aeroplanes (three of which can be seen here) consigned to retirement. Photo: John Jones

base. So all I had to do was walk from the hangar where the event was, across the engineering base, to my car.

By this stage, I'm the only one left. And there are five perfectly serviceable Concordes sitting on the ramp outside. Now, if you imagine 24 October, days of mists and mellow fruitfulness, it's getting foggy and misty. There are sodium lamps all around the ramp, and as I walk across, there are these five perfectly serviceable Concordes sitting there in the increasing fog and gloom, and that's when it hit me. Until that point, the sadness had been suppressed by making sure we celebrated. But at that stage, when the celebrations were over, that's when the tear came to the eye. Fortunately, it wasn't in the public gaze. And I got into the car and went home and Chris and Amy and discussed what had happened during the day.

Where did all of the aeroplanes go?

When we first made the decision that we were going to retire the aeroplane, part of that process was to say: right, where do the aeroplanes go? We put out an announcement inviting tenders for future homes for the aircraft. We were overwhelmed with hundreds of applications from around the world and out of those, I guess 80 were viable. Out of those 80, it became relatively easy to select where the aircraft were going to go.

British Airways and Air France had to coordinate where we were going to send their Concordes, as it would have been silly for both airlines to send an aeroplane to the same location. New York was self-evident in that it was the airfield that had the most Concorde movements in the entire history of the



aeroplane. The Smithsonian Institution in the States near Washington, DC was also an evident candidate because it is the pre-eminent aviation museum in the world. We liaised with Air France and the decision was that a BA one would go to New York and an Air France one would go to the Smithsonian.

Then we at British Airways looked at where the other four BA aircraft would go. Clearly we wanted one to go to Filton because Filton was the place where the British Concordes were assembled and it had a very, very long historical link with Concorde.

One of the key things we also wanted to do was to distribute the Concordes in the UK so that they were geographically placed apart, to enable greater catchment areas of UK public, who had contributed to the design and development of the aeroplane through their taxes, to see them. So that suggested Edinburgh, which has got, as I said earlier, a very strong link with Concorde, and Manchester, to where we had done a lot of special flights.

So where would the next flying one go? That was Barbados, because the Barbados flights had become increasingly popular, and in later years we'd run a regular winter season of flights to Barbados, which had gone down very well.

The next question – where do we send the last flyable aircraft, to

ensure good distribution for visitors? We've got distribution in the UK, so we thought be good to get distribution in the States. We already had two on the east coast, at New York and Washington, so wouldn't it be great to put one on the west coast?

The Museum of Flight at Seattle, which used to be the Boeing Museum of Flight, had made presentations to us. So that was the one for that last flyable aircraft. It also gave us the opportunity for one last attempt at record setting. We're not allowed to fly supersonically over inhabited and built-up areas, but we can fly supersonically where nobody lives. The plan was for us to leave New York and go north, fly supersonically over northern Canada, where there's mainly only mosquitoes and moose. Very few people. We've got a supersonic corridor there that we could use and then fly south down the West Coast and on into Seattle, and that broke the record for a commercial flight from the east to the west coast of the States.

Then there were three non-flyable aircraft. G-BOAB and G-BOAA were never modified in 2000. They were currently at Heathrow. Alpha Alpha went to Edinburgh. It had to be disassembled and taken up there physically. Alpha Bravo remained at Heathrow. The intention had been for G-BOAB to become the gate guardian for



The last Concorde at Heathrow

Above: G-BOAB remains at the airport to this day. Although the aircraft is not accessible to visitors, she is still washed and maintained and is visible to air travellers taking off from or landing at the airport.

Photo: Simon Boddy / Wikimedia Commons (CC BY-SA 2.0 DEED)

A new life for G-BBDG

Right: Following a chequered post-retirement life, which involved being dismantled for transport from Filton to Brooklands, Delta Golf is now on display to visitors and is partially active again, with the lights and droop nose operational once more. *Photo: Katie John*

Terminal 5. That never happened, but the aircraft is still there to this day.

And then the last one was G-BBDG, which had been the sixth of the development and test aeroplanes, and which had never flown in revenue passenger service, although it was the first aircraft to fly at Mach 2 with 100 passengers. It was in pieces at Bristol at Filton because it had been used by BA as a spares source. Because it could be relatively easily shipped, the logical option for that one was to send it to Brooklands, with Brooklands having been the source of 30% of the manufacture for all of the Concordes – both Air France and British Airways.

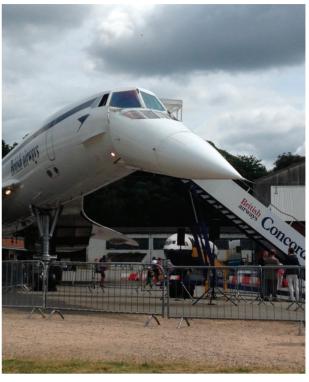
It took a bit of time, but all the pieces fell into place. And, of course, we have subsequently realised that we seem to have got it right because the exhibits in all of those locations to which the public have access are still very successful.

KJ: Have you heard any news about the Concorde at Barbados, which is not currently accessible to visitors? No, sadly my understanding is at the moment it's not on public display, but there are lots of plans to try and get it back on display. When it was on public display there, they had a very, very good way of displaying it

An enlightening display

Concorde G-BOAF, at Filton, has video projected on to the aeroplane to show not just its history but the workings of areas such as the power plant. A similar technique was used for G-BOAE, in Barbados.

Photo: Katie John



with projecting images on the outside of the aircraft and simulating a take-off run; it was established in its hangar on a simulated runway, with the rear of the engines lit up to simulate reheat. That was great, and of course projecting on the outside of the aeroplane is a very good modern technique that is used at Filton to great effect. Obviously, I'm very closely involved but it always pleases me when people tell me that they've been to see a lot of the Concordes, or in some cases, all of them. One of the things they say is that they're delighted that each presentational style is different from the others and they all draw out different aspects of the aeroplane. So yes, I'm very pleased about that.

KJ: Thank you very much indeed for your time. This has been fascinating!



A view from Concorde's cabin

BA stewardess Samantha Kingdon recalls her part in the final scheduled flight of Concorde G-BOAE, returning from Edinburgh to Heathrow – a day full of excitement and deep emotion.

RECEIVED THE SPECIAL CALL to say that I had been selected to work on the last flight on Concorde to Edinburgh and return to London. I was given the chance to be part of history on Concorde's retirement, and I was absolutely thrilled and delighted to be there.

I started my crew journey on Concorde in 1999 and ended on 24 October 2003. As a crew community we all held Concorde very close to our hearts and we were all very emotional on that day.

My memories from that day were a mixture of sadness, excitement and enthusiasm to make this day really special, something you'll remember for the rest of your life.

The whole day was brilliant. We started with the meeting in the briefing room to be informed what the day was to hold for us. We were given a Scottish thistle to wear on our lapels, and the atmosphere just between us crew was electric. Our passengers were BA staff who had won their tickets in a prize draw.

Once on board we prepared as much as we could, but I realised that we were all so excited to be part of this memorable experience. We kept looking out of the windows as it seemed like everyone on the ground was smiling and looking at us, wanting to be part of this historic event.

I remember that due to the lack of baggage the acceleration on take-off was phenomenal and we were all awestruck, the same as the passengers. We were delivering a champagne service, being professional and chatting to everyone, showing high standards at a time of great emotion.

In Edinburgh the airport had near enough come to a complete

stop, everyone wanting one last look and picture of this iconic aircraft. Bagpipes in the terminal, a celebration. We left there in tears.

When we eventually landed at London, after flying supersonic over the North Sea, the passengers were cheering and clapping – they were just so pleased to be there. A real tear-jerking moment.

My Concorde flight was the first to arrive. I remember looking out of the window and you could see the remaining two Concordes lining up for their approach in the distance.

Then, as we were taxying slowly around the airfield, I remember looking out of the windows again

and I was astounded at how many ground people in yellow tabards were cheering and waving at us. They were lined up all along the taxiway – firemen, police cars, ground trucks, etc – waving and cheering for Concorde.

For me it was such a highly emotionally charged day, being part of history. I had to say goodbye to an amazing piece of engineering that had been part of my life for four years. This was Alpha Echo's last scheduled landing and the end of an era of supersonic travel – such a pity. Yet we were just so grateful to be able to share these last moments together.



Welcome home

Workers from around Heathrow stop and watch, cheering and waving, as Alpha Echo touches down. Photo: Jetinder Sira

The end of an emotional day

Samantha Kingdon gives one last smile after disembarking, as the final evening event gets under way at the engineering base.

Photo: Samantha Kingdon



A ground engineer remembers

Carl Percey was a leader of the ground engineering team who prepared the Concordes for the day and took care of them once they had landed. Here, he recalls his experiences of that emotion-charged day.

The day started around midday for myself and a couple of my colleagues. We went in early as we were unsure what the traffic would be like around Hatton Cross. We had the standard briefing as we did before any shift. We then took a van down to the end of TBE hangar, by the point where the aircraft used to cross the road.

The aircraft landed and proceeded to taxi over. Once the last aircraft stopped, I went over to it, plugged in the headset and spoke to the crew. It was a very subdued atmosphere as it really brought home that this was the last time a Concorde would land at Heathrow. There would now only be five further departures as the Concordes were flown to their final resting places; and later G BOAA would depart by road and water to Edinburgh.

It was quite an emotional sight as we walked with the aircraft around to the public gallery in front of TBA. After the various photos had been taken, the crowd started to disperse. I took my crew and we started our walk round the aeroplanes, looking for any damage to wheels, etc. We then started to house the aircraft in the



hangar to service them as if they were going to fly a service the next day. It was hard trying to motivate my crew; as far as we were concerned it was the first time in history that mankind has taken a backward step. In other words, from the next day you couldn't fly to New York in 3.5 hours any more. For us it was a very sad experience as a lot of us had been involved with Concorde for most of our working lives.

In the following weeks the atmosphere changed with each departure as we knew that the Concordes would never return to Heathrow.

A life with Concorde

I had personally been involved with Concorde from 1969 at BAC Weybridge, and then from 1976 when BA took delivery, to the end of 2003. Little did I know that I would still be working on it today at Brooklands Museum, having been involved working on the elevons before G-BBDG arrived at Brooklands on the back of several lorries. So I have been involved in working with Concorde for just over 50 years one way or another.



A double view of Concorde

Above: One Concorde seen from the flight deck of another. Photo: John James

After the end of scheduled services

Above left: The Concordes have been returned to the hangar, and are being serviced as usual before their ferry flights to their final destinations.

Left: Engineers work on Alpha Echo.

Photos: Jetinder Sira

A feat of coordination

With thanks to Paul Beauchamp and Ady Dolan of NATS

The triple landing was carefully coordinated by Air Traffic Control. In a special interview for Mach 2, Air Traffic Controller Ady Dolan recalls that historic day and the preparations for this event.

I started work at Air Traffic Control (ATC) in 2000, so I experienced three years of Concorde operations before the retirement. Yet no matter how long they had worked at ATC, all of the controllers paid attention to Concorde.

Principally, this was because of the special procedures needed for managing Concorde take-offs and landings; because the aircraft was so fast, it had its own specific aircraft speed group, therefore controllers needed to allow extra space ahead of the aircraft. In addition, Concorde was the only aircraft type in which the name was included in the callsign – "Speedbird Concorde" – and this was in a way an expression of pride in the aircraft.

Concorde flights were always on time, and always used stand Victor 14. When they were taking off, though, other aircraft would actually ask to wait so that the crews could watch Concorde depart. This

became more frequent in the weeks leading up to the retirement; I remember one occasion when a full holding area asked for Concorde to go ahead so that they could all watch the take-off!

Also in those final weeks, airport vehicles would congregate around the runways, and crowds of Concorde enthusiasts would gather around the perimeter of the airfield, all to watch Concorde. Some of the enthusiasts had radios, so the Concorde crews would pass messages to the crowds via ATC. Some of the crews said some very kind and complimentary things about us.

Appearing on TV

When British Airways sent ATC the plan for the three final flights, ATC were happy to coordinate the event. However, it was a surprise to learn that we would be filmed live on BBC TV as the flights were coming in. The BBC visited us a couple of weeks beforehand

to plan the transmission. At first, they wanted to set up actually in the control tower, but they were advised that this would not be possible due to safety restrictions. The BBC therefore decided to transmit their pictures from an observation point on the balcony of the building to a satellite van stationed at the northern perimeter of the airfield, for broadcast. Again, though, this was not possible as the TV signal would interfere with communications between ATC and aircraft on the runway. In the end, the BBC had to run miles of cabling between the observation point and the van to get the transmission out!

ATC arranged for a separate radio frequency to be used as a discrete channel for the last incoming Concorde (002), so that the messages from the flight deck could be transmitted live. We practised on a couple of other aircraft first. The plan was for the BBC to be patched in as soon as Concorde reached the point of Combe Martin in Devon.

On the day, all was ready. Five minutes before Concorde 002 reached Combe Martin, ATC tried calling the aircraft. No response.

By this time, BBC reporter Fergus Walsh was standing by to begin the interview with ATC and the flight crew. I had to tell him that it was not going to happen – but Fergus said we had to go ahead anyway. Rather worried, I opened the communication link to 002 – and, thankfully, there was a response

Special treatment

A Concorde take-off as seen from the tower at Heathrow; ATC used special procedures to manage Concorde take-offs and landings. *Photo: Mike Doyle*





Everyday operations

A view from the ATC tower of Concorde moving around the airport on a typical day. It was only when the 002 flight from New York landed and taxied away, on 24 October, that the controllers realised this was the end of Concorde operations for good. *Photo: Mike Doyle*

from 002's flight engineer, Roger Woodcock. Just in time! Concorde 002's crew updated us and the BBC on what they were doing and where they were – inbound to Ockham – and then signed off.

All three of the Concordes were on time for their landings – but ATC had to allow more time and space for the final one, 002. Therefore, ATC at Heathrow Approach routed 002 over Heathrow and then over the London Area and Terminal Control Centre at West Drayton before their final approach.

When the final 002 flight had left New York, the air traffic controller who bade them farewell was the same controller who had welcomed the first Concorde flights in to JFK on 22 November 1977. We had a similar situation here at Heathrow. One of our controllers, Ivor Simms, had been a trainee on 21 January 1976 and had cleared Concorde G-BOAA for her take-off to inaugurate Concorde passenger services. He happened to be at ATC for the day of the final flights, and his colleagues asked him if he would clear the last Concorde to land and he did so.

For two weeks before that final day, everything had been about Concorde. It was only when the 002 landed and taxied away to the engineering base that we suddenly realised that this was really the end of Concorde operations. Heathrow would never be as exciting again. Over the following 20 years we would welcome a succession of new aircraft types – the Airbus A380 and A350, and the Boeing 787 – but nothing has yet come close to replacing Concorde.

Some final memories

I have a couple of final memories of working with Concorde over the years. One day, Concorde was coming in to land on runway 09R, and the preceding aircraft – an Olympic Airways A340 – had not vacated the runway in time for Concorde. So ATC had to instruct Concorde to go around. This was an evening flight, so the sun was setting, and we had the amazing sight of Concorde during the go-around before she could finally come in and land.

One week later, the captain of that flight sent us a nice letter saying he fully understood why we had ordered the go-around – and enclosed an invoice from Shell for £5,000, which was the cost of the extra fuel they had had to use.

We generally had a great relationship with the Concorde flight crews. We would visit each other's bases to observe each team at work. In 2013, Captain Mike Bannister brought his final flight and cabin crew to visit us at the control tower, to mark the 10th anniversary of the retirement. It feels as though that visit was just last month!



Dramatic departure

Concorde would look especially dramatic on evening take-offs, silhouetted against the sunset. Photo: Jetinder Sira

Reunion at Brooklands

On 24 October 2023, a gathering of Concorde's British Airways "family" – pilots, flight engineers, cabin crew, and others involved in Concorde services – attended a lunch at Brooklands Museum to mark the 20th anniversary of the BA fleet's retirement. Mach 2 Editor Katie John reports on the day.

THE COMMEMORATION BEGAN just before mid-day with a group photograph of Concorde personnel under the nose of Concorde G-BBDG, which had the lights turned on for the occasion.

This was followed by drinks and lunch. Guests were seated at tables named after various Concorde destinations – from the regular destinations of New York and Barbados to Paris and Rio de Janeiro (a nod to Air France there) and airports visited on charter flights, such as Bournemouth, Seville, and even Kangerlussuaq in Greenland (well done to whoever had to type that!).

An abundance of memories

John Tye, the former Concorde pilot who had organised the day, opened proceedings with a speech. He began by welcoming Captain John Hutchinson and his wife Sue, who were celebrating their 65th wedding anniversary; the following day would mark the 68th anniversary of John Hutchinson beginning his career in aviation. John Tye also welcomed Concorde cabin crew member Laurence Keniston and her husband Kevin, who had proposed to Laurence on Concorde's final flight.

John said some people at NASA had apparently believed that what we did with Concorde was a greater technical achievement than their Moon landings.

He outlined his own association with Concorde – from watching the first scheduled flight as a school-boy to interviewing former pilots and engineers today (including Chris Morley, who had flown G-BBDG).

He noted that 20 years ago today, at this very moment, the three final scheduled Concorde flights were still in the air. He then invited various people involved in that day to speak.

Captain Andy Baillie took G-BOAE from Heathrow to Edinburgh with James Bedforth and flight engineer Trevor Norcott. He said, "Concorde brought me home". He handed Alpha Echo over to Les Brodie for the final return to Heathrow, then saw the aircraft off and silently thanked her.

Les Brodie was not present, but Paul Griffin, the First Officer on that last flight back from Edinburgh, described the flight. There were only staff on board. Les let Paul carry out the take-off, on that grey, cold day in Edinburgh. Paul said that from brake release to reaching 29,000 feet and Mach 0.95 took just 4 minutes – the fastest take-off and climb by a commercial aircraft.



Concorde family photograph

The pilots, cabin crew members, engineers and other members of the Concorde "family" gather with G-BBDG. *Photo: Brooklands Museum*

Four days later, Paul proposed to Tarnya Gadd, who had been a cabin crew member on G-BOAF for the flight round the Bay of Biscay. Her overriding memory of the day was the sight of the airfield as Alpha Fox taxied out for take-off – "the whole airport shut down" as airport vehicles and workers in high-vis jackets gathered to watch the aircraft leave.

Warren Hazelby had been the flight engineer on Alpha Fox. He said he had been surprised to see the final landings mentioned on the BBC news. He noted that these last Concorde flights were not just the end of scheduled services, but also marked the end of BA using flight engineers.

The Bay of Biscay flight had included a 200-mile arc around Land's End at Mach 2, and a water salute on landing. Alpha Fox had carried 100 VIP passengers, including former MP Tony Benn, who met the flight crew and told them all about how he had saved the Concorde project from cancellation in the 1960s when he was a government minister.

Senior First Officer Phil Benson had been giving a talk on the QE2 on the day of the final flights. He timed the end of his speech to coincide with Alpha Fox overflying the ship at supersonic speed. Apparently, the ship's passengers all cheered when they heard the sonic boom!

John Middleton was one of the cabin crew on G-BOAG for the final flight from New York. He and four other crew members had flown out to JFK the previous day on a Boeing 747 – despite being severely delayed by the construction work for Terminal 5!

Tracey Percy, the Cabin Service Director on that flight, described the front cabin as "fairly calm" but the rear cabin as "carnage", as it was full of press people all trying to get their photos taken with the Mach meter. Once they landed at Heathrow, they couldn't get the door open! She said it had been a sad day, but such a privilege to fly with Concorde.

Fred Finn had been the most frequent flier on Concorde. He told the guests that he had had an "affair" with Concorde lasting 47 years: both the 27 years of Concorde services, and the 20 years since the retirement. Highlights included staying with John and Sue Hutchinson in Singapore during the years of Concorde's Singapore services (see Mach 2, Dec 2017) and being present for the photo shoot with Concorde, the Red Arrows and the QE2 in 1985 (see Mach 2, Aug 2018); Fred had been giving a commentary to the ship's passengers from the bridge. He had not been on the final flights but commented

on them for Sky News. He said it had been "the saddest day of my life" when Concorde stopped flying. Fred mentioned his own Concorde memoir, *Sonic Boom*, which will be coming out next month.

Last to speak was Jonathan Napier, who had been the First Officer on that final flight from New York. He said he had felt "a huge sense of honour" to be there, but the event also held sadness. He said Captain Mike Bannister had let him fly the whole journey apart from the landing (although Jonathan had tried unsuccessfully to be allowed to do that final part as well). As they touched down at Heathrow he had seen the airport "swamped" with people. Alpha Golf had been given a water salute, but the crew had been unable to shut the side window, so got drenched!

John Tye brought the speeches to a close by thanking the team at Brooklands who had laid on the day's events.

Final recollections

Lunch gave people a chance to catch up with old friends and tell their Concorde stories to new ones. Cabin crew member Jeanette Hartley told me about seeing G-BBDG land at Heathrow for the first time in August 1974, on its way to carry out hot-weather trials in the Far

East. Colin Mitchell, Director of Goodwood Travel (one of the main charter companies involved with Concorde), told me how John Hutchinson had flown Concorde around the route at Brands Hatch; all the people "in the posh seats under the roof" had got covered in rust from the engines' vibration!

Lunch ended with a short speech given by Chief Concorde Pilot Jock Lowe. He recalled talking about Concorde with Tony Benn, who explained why he had kept Concorde going – Benn had felt that "we have to give the country an aspiration – a dream". Jock also said thank you to John, Lynne and Jen Tye, who together had organised the day's events.

The finale was a nose droop by Delta Golf, at just after 4.00 pm. The Brooklands volunteers had done a great job finishing DG's paintwork, and she was shining against the dramatic stormy sky. Once more, Concorde's people clustered around the aircraft's nose as she saluted them in classic Concorde style. A wonderful end to a fascinating day.

For further information about Concorde events at Brooklands Museum, please visit the website: www.brooklandsmuseum.com/explore/exhibitions/Concorde-Experience



A fitting end to the afternoon

Despite the threat of rain, Delta Golf looks dazzling as she carries out a nose droop, 20 years to the minute after the scheduled services came to an end. *Photo: Katie John*

Presentation at Waterside

On 25 October, Concorde pilot John Tye gave a talk about the aircraft at British Airways' Waterside complex. The lecture was introduced by Andrew Perkins, a Senior First Officer on the Boeing 777, and was given to an audience of young BA employees and students. Katie John reports on the event.

The Lecture began with the British Airways (BA) video (familiar to many of us) showing Concorde's history and what she had meant to the airline. Concorde's career had not started well – there had originally been 200 orders placed by airlines, but the 1973 oil crisis had led to those orders being withdrawn, and the only customers would be the national airlines of the UK and France, whose governments had directed both of the airlines to take on the aircraft.

John then told how Lord King, who had taken over BA in 1981, had given the airline two and a half years to make Concorde profitable. He described the brilliant plan devised by Concorde pilots Brian Walpole and Jock Lowe, who found out that their customers were routinely underestimating the cost of tickets, so simply charged the customers the price they thought they were paying! This action, plus the start of regular charter flights in 1984, meant that by the time the airline was privatised in 1987, Concorde had - in Jock Lowe's words - gone from a "white elephant" to a "golden eagle". Over the next 13 years, the fleet of seven Concorde aircraft would contribute half a billion pounds to BA's revenues and would become the flagships both for the airline and for the nation.

John described Concorde as "the greatest icon of the 20th century". He noted that, when having lunch with Neil Armstrong (as you do), Mike Bannister had been astonished to hear that Neil put operating Concorde for 27 years right up there with their Moon landings.

Then John took the listeners through his own career (see review

article on p.22), beginning with bunking off school to watch the inaugural scheduled passenger flight and culminating with his time flying Concorde himself. He noted that there had only been 134 Concorde pilots and 57 flight engineers – compared to the 4,000 pilots currently employed by BA. He mentioned First Officer Barbara Harmer, BA's only female Concorde pilot. He also outlined the rigours of the 6-month Concorde training course.

For his audience of young BA staff and students, John outlined features that made Concorde different from the airliners that they flew today - in particular, the fact that the wings did not start to generate lift until the nose was raised at rotation, and, on landing, the way the pilots would have to "fly the nose wheel down" and use the brakes and reverse thrust firmly. He talked his listeners through a typical BA001 flight to New York, again comparing the experience to flying one of today's aeroplanes; Concorde, with a maximum of 100 passengers, would carry 93 tonnes of fuel, compared to 56 tonnes for a Boeing 777 with 280 passengers, and would use 1-1.4 tonnes just taxying to the start of the runway. He ran them through the noise abatement procedures, and the fact that, once through the sound barrier, Concorde could accelerate and gain altitude without needing reheats. No other civil or military aircraft has ever been able to do this.

The audience were treated to other snippets as well – the fact about evening Concorde flights experiencing the sun rising in the west, and the famous photograph by Adrian Meredith of Concorde flying at supersonic speed. Contrary to the



Quintessential Concorde
G-BOAG, photographed while flying
at supersonic speed. John Tye told his
listeners of the circumstances in which
this famous image was taken.
Photo: Adrian Meredith

widespread belief about this image, the Tornado from which the photo was taken could not keep pace with Concorde so Captain John Eames had to reduce Concorde's speed from Mach 2 to Mach 1.6 for the shot to be taken.

Lastly, John went through the final years of Concorde services – the crash and grounding for modifications, and the decision to retire the British and French fleets. He said that, given the modifications, the aeroplanes could have kept going for another 10 years at least, but the loss of customers due to the crash, and the economic and political shocks of 9/11 and the war in Iraq, made continued operation too expensive.

He finished by commemorating the thousands of people involved in Concorde's development and operation, from the designers in the 1960s to the museum volunteers who keep Concorde's name alive today.

Dinner under Concorde's wings

The week of anniversary celebrations for the British Airways Concorde fleet ended with a gala dinner under the wings of G-BOAC, at the Runway Visitor Park (RVP) in Manchester. RVP tour guide John Hepple describes the evening.

N FRIDAY 31 OCTOBER 2003, Concorde G-BOAC landed at her new home, Manchester Airport. Over the 20 years since then thousands of people have experienced the fabulous tours run by the Runway Visitor Park (RVP). Thousands more have attended events underneath, and every day visitors pass under her nose as they move between the reception area and the café.

To celebrate the 20th anniversary, the RVP held a Celebration Gala Dinner under Alpha Charlie on Friday 27 October. As guests entered the hangar they were met with the sight of the majestic flagship of British Airways' Concorde fleet colour-washed in blue light. Underneath her were tables for over 300 guests with the red and white table uplighters creating the red, white and blue used extensively on the British Airways fleet.

BBC North West Tonight news broadcast a segment live on their early evening show.

The event was launched by Beccy Blease, the TAS Trading Ltd Account Manager. Along with her incredible team, she was responsible for delivering what can only be described as a night to remember.

Debbie Riley, Chair of The Aviation Society (TAS) at Manchester, paid a moving tribute to the late Peter Hampson, former Chair of TAS. "How to catch a Concorde" was one of Peter's party pieces – a great story of how he and his team managed to get Alpha Charlie to Manchester. (The text is on the TAS website; well worth the read). The tribute was especially relevant as his wife, Sylvie and members of Peter's family were present. As the saying goes, "Gone but never forgotten".

Fred Finn delivered a short but very bright chat and paid tribute to the work done by Graham Cahill and John Dunlevy from Heritage Concorde on G-AXDN at Duxford as well as Alpha Charlie. Fred's book *Sonic Boom* will be released on Amazon in mid-November. Fred is the world's most travelled flyer, and flew on Concorde 718 times – more than some of the crew!

The raffle raised a significant amount of cash, which will all go towards the maintenance work done by Heritage Concorde. Prizes included several items from Fred's personal collection as well as tours on Alpha Charlie, flight lounge vouchers from Manchester Airports Group, and a visit for four to the Avro Heritage Museum at Woodford.

Following the dinner, the guest of honour, John Tye, Concorde pilot and later Boeing 777 Captain with British Airways, gave an entertaining and informative



An eye-catching display

Alpha Charlie and the tables underneath her were set off in striking fashion by the red, white and blue lighting. *Photo: John Hepple*

talk. His career went from filing clerk at BA to flying Concorde, then moving on when she was temporarily grounded in 2000 to become a 777 training captain. His last action on Concorde was to take Alpha Charlie back to the gate as she was about to leave Heathrow on a LHR-JFK flight. The CAA had just suspended her Permit to Fly following the Paris crash.

Tours of the aircraft ran throughout the evening. Guests were also entertained by the sensational voice of soprano Gemma Ashley. The climax of the event was a double dip of G-BOAC's nose, accompanied by Gemma with a live rendition of the British Airways advert music: the famous Flower Duet from Lakmé by Delibes.

For further details on the work of the RVP, TAS, and the Avro museum, see:

www.runwayvisitorpark.co.uk; www.tasmanchester.com; www.avroheritagemuseum.co.uk

Serenading Alpha Charlie Soprano Gemma

Ashley sang for the guests throughout the evening, and ended by singing to Concorde as the aircraft dipped ner nose. Photo: John Hepple



A life with Concorde

In this gripping, entertaining and sometimes moving memoir, British Airways pilot John Tye tells of his extraordinary life, rising from a very uncertain start to achieve his dream, becoming a pilot and taking the controls of Concorde.

ONCORDE PILOTS appear to many of us as the crème de la crème – a select group of men and women who occupy the pinnacle of aeronautical achievement. Yet some of them have reached that apex from surprisingly modest beginnings.

As the book's title suggests, John did indeed start his life in an orphanage, having been given up for adoption. His first major stroke of luck was to be adopted by Ron and Erica, the parents whom he adored and to whom he has dedicated his book. The happy, stable yet mentally stimulating life they gave him formed the foundation for both his "glamorous, exciting and privileged" career and his own family.

John grew up just five miles from Heathrow (London Airport as it was then). Right from the beginning, there were hints of the marvel that was to become Concorde. One neighbour, who built pedal cars and go-karts for the young John and his friends, worked at Weybridge, building some of the electrical systems that John would operate when he finally became a Concorde pilot. John had the pleasure of reconnecting with this man much later in life, when the neighbour had become a volunteer looking after Concorde at Brooklands Museum - bringing the Concorde story full circle.

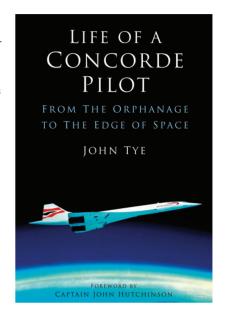
John's 46-year career in aviation began with a lowly job at British Airways in August 1976. This was supposed to be a stop-gap before university, but John opted to stay with the airline. In 1978 he was accepted to train at the College of Air Training at Hamble – but Hamble closed its doors before he could start there. So began a trek towards amassing the 700 flying

hours needed to become a commercial pilot. This really was a case of *per ardua ad astra*. His journey started in June 1981, when Lynne booked him his first lesson at the British Airways Flying Club at Booker Aerodrome. Over the next six years John gained experience flying family and friends on day trips and then becoming an instructor; he attained his commercial pilot's licence in March 1987.

Unable to become a pilot for BA at that time, he was accepted by Dan-Air – where he made the leap from flying light aircraft to the Boeing 727. After two years of fun flights to holiday destinations from Gatwick, in November 1989, John re-joined BA as a pilot - prompted again by Lynne, who told him, "You've always wanted to fly Concorde and you're certainly not going to do that in Dan-Air". He would spend nine years as first officer, and then Senior First Officer and training co-pilot, on the Boeing 747. Then, finally, he was accepted on the 28th Concorde training course. He takes us through every stage of his training; thanks to his experience as an instructor on various aircraft, this section is detailed but still draws in even the lay reader.

Finally, in February 1999, under the instruction of Captain Les Brodie, John has his first chance to fly Concorde, taking the controls of G-BOAF late one afternoon in Seville. Again, we are right there with John as he re-experiences the astonishing power of handling Concorde for real. Just six days later, John would operate his first commercial flight, taking G-BOAB from Heathrow to New York.

On the night of the millennium, John, with Captain Mike Bannister, flew Concorde over the London Eye



LIFE OF A CONCORDE PILOT

From The Orphanage to The Edge of Space

John Tye

The History Press

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as part of the celebrations; the flight was perfect, although the low cloud base obscured the view. By this time, Concorde had been in service for 24 years. As John observes, "Concorde was conceived in the 1950s, first flew in the 1960s ... and here we were entering the twenty-first century". The aircraft "was still working fine twenty years after the internet was invented".

Just seven months later, though, tragedy struck on 25 July 2000

when Concorde F-BTSC crashed outside Paris, with the loss of all on board. On 15 August, the UK's Civil Aviation Authority grounded the Concorde fleet pending investigation and modifications. John was part of the crew preparing to take G-BOAC to New York; they had actually begun their push-back when they were ordered to return the aircraft to the gate. John didn't know it at the time, but that would be his last flight with Concorde.

By the time the aircraft had been re-certified for service, John had trained as a captain on Airbus aircraft. For the rest of his career John would fly Airbuses and the Boeing 777, becoming a training captain for both. Finally, in December 2022, John flew his last BA flight – a trip

to Barbados and back, accompanied by his family.

The exciting career and happy home life were offset, however, by some significant challenges. John had been born with a physical problem affecting his lower legs and feet. He describes the issue in a very matter-of-fact manner, and it is clear he has not let it hold him back in any way. Yet it seems to have given him a great measure of sympathy for other people with struggles in life. He very movingly recounts his long involvement with the BA charity Dreamflight, which provides flights to Disneyland (and medical support) for seriously ill and disabled children. John has also spent many years supporting young people growing up in the slums of Delhi.

This memoir is a look back not just at the achievement of flying Concorde but at a period of British aviation history that is fading into our collective memory - when a boy could see Constellations and Argosies flying past his window, when someone learning the ropes on a Piper Tomahawk could dream of flying Concorde, when the world was a smaller yet more exciting place than it is today. John ends by explaining why he wrote it: to tell his family what he had actually done, and to inspire people from all walks of life to follow their dreams. And if you follow this entertaining, moving tale to its end - laughing out loud at some parts, being deeply touched at others - I think you might be inspired, too.

Concorde First to Last – a tribute in film



This in-depth and absorbing film is a tribute to the "ordinary and extraordinary men and women" who created and flew Concorde.

The film was sponsored by the Bristol Aero Collection Trust, including Sir George

White, great-grandson of the man who founded the Bristol Aeroplane Company at Filton in 1910.

It uses rare archive footage of interviews with test pilots such as Godfrey Auty, who flew the experimental Bristol 188 and the BAC 221 (modified Fairey Delta); the developers of the Olympus 593 engine; and workers on the factory floor at Filton who used pioneering techniques in milling the parts of the airframe from billets of metal. It also looks briefly at the technical and political issues involved in the Anglo-French manufacturing partnership that produced Concorde.

This being a film made at Filton, it focuses on the development and early flights. It includes extensive footage of the prototypes' first

flights and exciting views of their double display for the 1969 Paris air show. There are also elements not usually seen in Concorde films, such as footage of the fuel test rig in operation, and Brian Trubshaw's account of the establishment of the test flight facility at Fairford.

The film gives insights into commercial services, starting with the inaugural flight by G-BOAA and including an interview with Captain Chris Norris, who talks us through a transatlantic flight.

The story, inevitably, ends with a look at the tragic crash and the efforts involved in modifications, and the retirement of the aircraft. The closing scenes feature the very final flight, in which G-BOAF returns to her birthplace at Filton. The final interviews, with Alpha Fox's pilot Captain Les Brodie, Chief Concorde Pilot Mike Bannister, and passenger Betty Morgan, and the last shots of G-BOAF as an exhibit for visitors, give a very human view

of this unique aeroplane and what she meant to so many of us.

A further 90 minutes of extras include film of a round-the-world journey, charter flights and base training, and a flight deck tour of Concorde G-BOAC in Manchester.

The film is available as a DVD or an HD stream from Bellevue Films for £14.95: bellevuefilms.co.uk

Bristol Aero Talks

Bristol Aero Talks will show an abridged version of the film, with a discussion afterwards. To book a place, click the link below:

Tuesday 14 November 7.30 pm The John James Theatre Aerospace Bristol Hayes Way, Patchway BS34 5BZ

www.eventbrite.com/e/bristolaero-talk-concorde-first-to-lasttickets-749853601307

In memoriam: David Macdonald

Katie John, Editor, Mach 2

On 7 August 2023, the Concorde community sadly lost British Airways flight engineer David Macdonald, who died after a battle with cancer. David had been heavily involved with Concorde at the start of her life in service, and would work with the aircraft for about 20 years. To the end of his life, he was a passionate supporter of our beautiful white bird.

David began his career in aviation in 1955 as an apprentice at British European Airways (BEA). Then, in 1961, he moved to the British Overseas Airways Company (BOAC) to train as a flight engineer and work on the Comet 4 and then the VC10. At the formation of the Concorde 'Nucleus Group' in 1974 he was made a Flight Engineer Superintendent; he went on to work as a flight engineer on Concorde. He retired in 1994.

In a personal email to me, David shared his memory of his last ever flight with Concorde, bringing G-BOAG back to Heathrow. As he explained:

"Following the Normal Checklist, one would end up with just no. 4 engine running, ground power would be switched on and simultaneously no. 4 shut down; all the usual electronic noise and hum of fans would continue.

"However, way back in the early sixties, on my first aeroplane (Comet 4) I had a diversion from Khartoum (sandstorm) to Wadi Halfa – a small airfield with almost nothing, certainly no ground power. Engines were shut down and batteries switched off to conserve power; with no equipment noise one could clearly hear the engines wind down. The silence in the aeroplane was a little eerie.

"This was how I wanted to sign-off on Alpha Golf that day. I shut down no. 4 engine, switched off the batteries and said to my chums, "listen". On an otherwise quiet aircraft we could hear clearly the changing tones as the last engine wound down, culminating in the slow clatter of relaxing blades. A symbolic, atmospheric moment."

Celebrating Concorde

I first met David in March 2009 in Toulouse, during the celebrations for the 40th anniversary of Concorde 001's first flight. We ran into each other again a few weeks later, at the British celebrations for 002 at the Royal Aeronautical Society (RAeS), and again at the RAeS in January 2016, at the event to mark 40 years since the inauguration of Concorde passenger services.

I then invited him to contribute articles to Mach 2. For the next seven years David gave Mach 2, and me, the benefit of his encyclopaedic knowledge of Concorde's technical aspects, as well as accounts of his participation at major points in the BA fleet's history.

In addition, I would often call on him for expert advice and support, and I will miss his wisdom and his deep understanding of Concorde. He was writing about Concorde almost until the end; his final article for Mach 2 appeared in the May 2023 issue.

Signing off

As this issue commemorates the 20th anniversary of the British Concordes' retirement, I will end with an account from David himself, which he sent me in October last year, about seeing one of the last of the BA003 flights, in October 2003:

"Daughter was almost halfway through her British Airways career – in Customer Services (T4) – she took myself and her 6-year-old son to watch one of the last 003s before withdrawal from service. Hard to believe, but I'd never witnessed a take-off before – all those from the inside, but none from the outside!

What an experience! Literally thousands of people, all the South-side verges crammed with cars, hard up against the fence, in the dark, listening-in on my airband radio, watching heavily laden 747s stagger into the air. And then the 003. When the co-pilot acknowledged take-off clearance, having earlier seen the crowd assembling and assuming some would have radios, he asked the Tower to thank the crowd for turning out to see them off (it would be illegal for him to address us directly). Then the event: the lights accelerating towards us, pitching-up at seemingly the last second – not staggering, but purposeful, still accelerating – the roar shaking your ribs, four streams of flame, leaning over into a gentle turn looking for Hounslow Heath, 300 mph then gone, into the night."

I can imagine the glow of the reheats fading, then turning off, as Concorde soars and gathers speed westwards, heading for Mach 1. I imagine that David is with her, guiding her into the sunset.



Photo: Jetinder Sira